DEVELOPMENT OF INTONATION PATTERNS IN TIME CLAUSES AMONG EFL PROSPECTIVE TEACHERS: AN EXPERIMENTAL STUDY

İNGİLİZCE ÖĞRETMEN ADAYLARINDA ZAMAN GÖSTEREN YAN CÜMLELERİN TONLAMA ÖRÜNTÜLERİNİN GELİŞTİRİLMESİ: BİR DENEYSEL ÇALIŞMA

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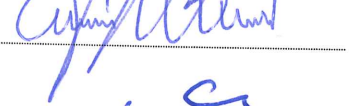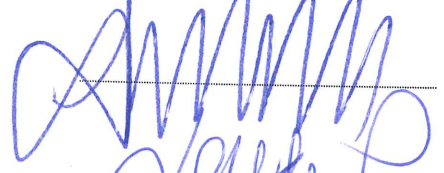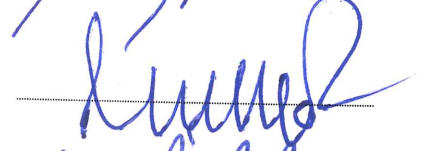
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ONAY

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Fulda KARAAZMAK

ÖZ

Bu çalışmanın temel amacı İngilizce öğretmen daylarının İngilizce cümle tonlaması konusunda mevcut olan yeterliliklerini keşfetmek ve gerekli ise de konuşmalarında bulunan tonlama sorunlarını çözmektir. Çalışmanın katılımcılarını Türkiye'deki büyük devlet üniversitelerinin birinde öğrenim görmekte olan İngilizce öğretmen adayları oluşturmaktadır (S=84). Çalışma 2014-2015 akademik yılı bahar döneminde gerçekleştirilmiş ve ilgili veriler toplanmıştır. Çalışmanın temel amacına ulaşmak için, araştırma metodu olarak ön-test son-test deneysel yöntem kullanılmıştır. Ön-test ve son-test arasında, katılımcılarla İngilizce cümle tonlaması konusunda düzeltici öğretim dersleri gerçekleştirilmiştir. Bu oturumlarda, içerisinde anadil konuşucularının ses kayıtlarından alınan zaman cümleciklerinden oluşan çeşitli tonlama alıştırmalarının olduğu bilgisayar programı sunumları kullanılmıştır. Gramer Tonlama Modeli (Cauldwell, Hewings, 1996; Hahn, 2004) ile ilintili olan İşitsel Sesletim Modeli (Demirezen, 2003, 2004) öğretim derslerinde kullanımıştır. Ana veri toplama aracını 48 adet İngilizce zaman cümlesi oluşturmaktadır. Bu maddelerin güvenirliğini belirlemek için Kuder–Richardson Formülü 20 (KR-20) istatistik analiz tekniği uygulanmıştır. Sonuçlar .90 üzeri puanla güvenilir bulunmuştur. Üç gruba bölünmüş olan toplam 48 zaman cümlesi üç grup katılımcı tarafında ön-test ve son-test uygulamalarında seslendirilmiştir. Hem ön-test hem de son-testte, veriler ses formatında e-posta aracılığıyla toplanmış ve katılımcılar tarafından araştırmacıya gönderilmiştir. Katılımcıların zaman cümlelerini seslendirirken ses yalıtımlı bir ortamda olmaları rica edilmiştir. Katılımcıların ses kaydı yaptığı sırada araştırmacının ortamda var olması durumunda ortaya çıkabilecek olan endişe, huzursuzluk, stresli ya da rahatsız hissetme gibi müdahil etkileri ortadan kaldırmak amacıyla ses kaydı için uygun zaman ve mekanı belirlemek katılımcıların kendi istediğine bırakılmıştır. E-posta aracılığıyla ön ve son testte elde edilen ses dosyaları ilk olarak biri araştırmacının kendisi olmak

üzere farklı değerlendiriciler tarafından doğru ya da yanlış olarak iki seçenekli bir ölçeğe göre değerlendirilmiştir. Değerli sonuçlara ulaşmak için, notlandırma sürecinin değer-biçiciler arası güvenirlik değerleri SPSS 21.0 yazılımı aracılığıyla hesaplanmıştır ve sonuçlar 0.80 üzerindedir. Bu da farklı değer-biçiciler arasında yüksek güvenirlik degerine işaret etmektedir. Katılımcıların ön-test ve son-test sonuçları arasında önemli fark olup olmadığını değerlendirmek için SPSS 21.0 yazılım tarafından eşleştirilmiş örneklemler T-testi yapılmıştır. Bu çalışmada konu edinilen İngilizce tonlamanın 3 bileşeni olan cümle vurgusu, duraklama, ses yüksekliği kullanımları açısından katılımcıların ön ve son test sonuçları arasında önemli fark ($p<0.05$) bulunmuştur. Düzeltici tonlama öğretimi dersleri de İngilizce öğretmen adaylarının konuşmalarında cümle vurgusu, duraklama, ses yüksekliği kullanım sorunlarını çözmede etkili olarak görülmüştür.

Anahtar Sözcükler: İngilizce tonlama, cümle vurgusu, duraklama, ses yüksekliği, öğretmen eğitimi, İngilizcenin yabancı dil olarak öğretimi, İşitsel Sesletim Modeli, Dilbilgisi Tonlama Modeli

Danışman: Prof. Dr. Mehmet DEMİREZEN, Hacettepe Üniversitesi, Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalı

DEVELOPMENT OF INTONATION PATTERNS IN TIME CLAUSES AMONG EFL PROSPECTIVE TEACHERS: AN EXPERIMENTAL STUDY

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ABSTRACT

The major aim of this study was to explore the present competencies of prospective English language teachers about English sentence intonation and if necessary, to remedy the intonation problems in their speech. The participants of the study consisted of prospective EFL teachers enrolled at a major state university in Turkey (N=84). The study was conducted and the related data was collected in 2014-2015 academic year spring semester. To reach the main purpose of the study, a pre-test post-test experimental design was used as the research methodology. Between pre and post-tests, remedial English sentence intonation teaching lessons were carried out with the participants. In these sessions, PowerPoint presentations including various intonation exercises about time adverbial sentences from the voices of native speakers were used. Audio Articulation Model (Demirezen, 2003, 2004) was employed for the remedial teaching lessons in accordance with the Grammar Intonation Model (Cauldwell, Hewings, 1996; Hahn, 2004). A corpus of English time adverbial sentences (N=48) was the main data collection instrument. To determine the reliability of the items in the corpus, Kuder–Richardson Formula 20 (KR-20) statistical analysis test was conducted. The results were found to be reliable due to having above .90 score. There were three groups of time adverbials in the corpus of 48 sentences which were read out by three groups of participants in pre and post-test applications. In both pre-test and post-test, the data was collected from the participants in audio form and handed over to the researcher via e-mail. The participants were asked to record their voices in a sound proof environment while they were reading out the time adverbials in the corpus. Determining the suitable time and place for the voice recording was deliberately left to the discretion of the participants to eliminate the interfering effects like anxiety, uneasiness, feeling uncomfortable or stressed, that could have been arisen if the researcher was present at the time of voice recording of the participants. Audio material gathered in both pre-test and post-test

via e-mail was analyzed firstly by different human raters including the researcher in the form of dichotomous scale as either correct or incorrect. To reach valuable results, inter-rater reliability measures of the human rating process were calculated by SPSS 21.0 software and the results were above 0.80, which indicates high inter-rater reliability among different raters. To evaluate if there was any difference in the participants' pre-test and post-test results indicating an improvement in their English intonation in terms of sentence stress, juncture and pitch usages, which are three components of English intonation dealt with in this study, paired samples T-test statistical analysis was carried out by SPSS 21.0 software. It was found out that there were significant differences between the pre and post-test results of the participants in the three components of English intonation mentioned above. Remedial intonation teaching lessons were also found to be effective in correcting problems of sentence stress, pitch and juncture usages in the prospective EFL teachers' speech.

Key Words: English intonation; sentence stress; juncture; pitch; teacher education; EFL context; Audio Articulation Model; Grammar Intonation Model

Supervisor: Prof. Dr. Mehmet DEMİREZEN, Hacettepe University, Department of Foreign Language Education, Division of English Language Teaching

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 results 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.

Fulda KARAAZMAK

ACKNOWLEDGEMENTS

To my mother,

I hope there is a place that we may meet again…

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1. INTRODUCTION

In English language teaching environments, learners generally study via using all four skills which are listening, speaking, reading and writing together with grammar and vocabulary. The degree of importance attached to teaching all these branches of the language changes in relation to some concepts like the purposes of teaching and learning the language, whom and where to teach the language, hours allocated for each language skill etc. Among all the branches of language, teaching speaking skill has some priority if the main purpose of learning a language is to use it. It should also be taken into account that teaching speaking skill may be harder than teaching other skills because it is one of the productive skills and it requires learners to put a great amount of effort. Another issue to be taken into consideration is that while teaching speaking, pronunciation and intonation are crucial components to be incorporated to the teaching process.

Especially in English as a foreign language (EFL) teaching environments like Turkey, English has no official status in the country. For this reason, learners generally do not have adequate opportunities to use the language they are learning outside of the class. Being related with this situation in Turkey, English language learners have limited opportunities to speak English except from language classrooms. Due to having limited or no opportunity to use language in their normal life, it is even more difficult for EFL learners to grasp and use the correct intonation patterns in English. For this reason, EFL learners should be deliberately taught about English intonation in language teaching classrooms. Since intonation is an important concept to convey the correct intended messages to the speakers, the teaching of it to the language learners is crucial. In this sense, teaching speaking, pronunciation and intonation becomes more and more important in foreign language learning and teaching environments.

As indicated by many researchers intonation is generally considered as the most challenging area of foreign language learning; therefore, specific attention should be given to determine the elements of intonation and then to teach them with appropriate teaching techniques and activities (Brazil, 1997; Demirezen, 2009; Hayes, 2009; Levis, 1999; Morley, 1991; Taylor, 1993). The key elements of intonation are described as stress, juncture and pitch and these three components

make the learning and teaching of intonation of English difficult for many language learners and teachers, as well. They are generally "problematic to Turkish students and teachers, who have very strong fossilized intonation errors" (Demirezen, 2009, p. 2777); but there are also some research studies conducted to teach English language learners these difficult components of English intonation.

In a research study conducted by Hişmanoğlu (2012), the problematic English word stress patterns for Turkish EFL learners were investigated and Turkish EFL learners participated in the study were found to develop in terms of the usage of English word stress patters. These types of studies are crucial because they prove that if the necessary amount of attention is given to the teaching of English intonation patterns in language teaching classrooms, intonation teaching can get rid of its neglected place in English language teaching area.

If it is accepted that learning correct English intonation patterns is important and should be an integral component of language teaching curriculum, then the question of teacher effectiveness comes into mind; namely the question of how effective English teachers are at both using and teaching English intonation to language learners. In EFL contexts, not only language learners but also language teachers have limited opportunities to use English. In this sense, it may not be wrong to state that firstly English teachers should be effective in using correct intonation patterns in English enough to teach them. Here, the issue of evaluating and if necessary, advancing EFL teachers' effectiveness in using correct English intonation in their own speech becomes quite significant. Therefore, the important problem is that intonation teaching in EFL classrooms is not always given the necessary attention and one of the reasons of this situation is related to teacher effectiveness.

For the reasons stated above, this study is more concerned with prospective EFL teachers' effectiveness of using and teaching correct intonation patterns in English time adverbial clauses. If prospective English teachers are found to have problems about using correct English intonation in their speech, the aim is to cure their intonation problems. While doing this, the other aim of this study is to give some perspective to pre-service EFL teachers about the issue of how to teach intonation in English. In this study, prospective EFL teachers are informed about the correct

usages of pitch, stress and juncture of English time adverbial clauses. In this sense, it should be kept in mind that sentence stress, which is one of the concerns of this study, comprises the learning of phrases, clauses and sentences and it is an extremely complex task for many non-native English teachers (Demirezen, 2009).

1.1. Background of the Study

From the very beginning of English language teaching (ELT) and learning history, there have been some changes in the amount of importance attached to the teaching of different language skills like listening, reading, grammar etc. To begin with, a great amount of importance was attached to the teaching of grammar rules and vocabulary of the target language via translation with the purpose of teaching the literature of the target language when the Grammar Translation Method (GTM) ruled English language teaching area (Larsen-Freeman, 2003). Then, during the Audio Lingual era, the attention was given to the teaching of language for communication via repetitive drills. Listening, speaking and pronunciation teaching became important in that era and reaching the native speaker-like pronunciation was the purpose (Richards & Rodgers, 2014). It can be stated that in the 1940s, 1950s and 1960s, pronunciation was seen as an important part of language teaching curricula in both Audio-lingual and Situational Language Teaching approaches and the language learning aim was to acquire correct grammar and accurate pronunciation (Morley, 1991).

In the 21st century, via Communicative Language Teaching (CLT), the focus has shifted towards the teaching of language with the purpose of triggering real communication among learners and generally having a communicative end (Harmer, 2007). With that purpose in mind, the importance has been attached to all four skills, which are listening, speaking, reading and writing with spoken skills taking the priority (Howatt & Widdowson, 2004). Since the main aim of language learning is communicating in the target language, spoken skills have been important. However, the significance of pronunciation teaching has decreased slowly. Therefore, for pronunciation teaching, comprehensible, not native-like pronunciation has become the purpose to reach (Richards & Rodgers, 2014). Native like pronunciation is no longer an aim of language teaching and learning in CLT approaches. As it can be grasped in this short summary of English language

teaching history, grammar, vocabulary and all four language skills have taken some different levels of attention at different times in the history because of various reasons like the changing needs of learners, technological developments etc.

Initially it should be stated that pronunciation is a prerequisite for intonation. With keeping that in mind, giving specific reference to pronunciation teaching and more importantly to intonation teaching in English is believed to be necessary as intonation teaching and learning is the main concern of the present study. As stated earlier, in the 1960s, 1970s and 1980s, less attention was given to the teaching of English pronunciation to learners. The significant result of the decrease in the importance of pronunciation teaching was that many language teaching programs abandoned pronunciation teaching entirely. In terms of materials, textbooks and teacher reference publications were concerned; almost no new material on pronunciation was produced in those years (Morley, 1991).

If the intonation teaching branch of ELT field is taken into account, it can be seen that not much attention has been given to the teaching of English intonation patterns throughout English language teaching history. Even when the teaching of native-like pronunciation was the target of language teaching during the Audio-lingual era, intonation teaching was not given considerable attention. However, it should also be stated that in some parts of the history, intonation teaching was attached some importance. For instance, in the 1970s and 1980s, some attention was paid to intonation teaching (Allen, 1971; Yule, 1989). All the supra-segmental features of language began to take importance. The importance of supra-segmental features including intonation and their place in conveying communicative meaning in discourse was mentioned. But again, these intonation studies were less in number compared to the research studies conducted in other branches of English. For this reason, it may not be wrong to state that intonation teaching is considered as a neglected part of English language teaching area throughout history and even today.

About the issue of not giving enough attention to the teaching of intonation patterns of English, many different reasons can be stated. Firstly, much time may not be allocated to the teaching of intonation in the language teaching curriculum. Additionally, some educators or students may think that learning the correct

intonation patterns is not important compared to learning grammar rules or vocabulary of the target language. The last and maybe the most important reason can be related to the proficiency levels of English teachers in terms of the knowledge of English intonation. In the departments of teacher education in Turkey, problem causing consonants for Turks like (ʧ, ʤ, ɲ, r, h, w, ɖ) and vowels like (ow, uw, ɑ, ɛ, ʌ, ə, œ) working together prepare a faulty basis for intonation. This fact is important to understand the difficulty of teaching and learning English intonation and therefore, its neglected nature in ELT.

Considering the solutions to the problems stated above, if the importance of learning and using the correct intonation patterns while speaking the language is understood, then the necessary time can be allocated to incorporate intonation teaching into English teaching curriculum in advance. This can be a solution to the possible teacher and learner resistance to learn intonation, as well. To find a solution to the last reason, namely English teachers' lack of necessary background knowledge and skills to teach intonation, more research results are needed to be aware of the current proficiency levels of language teachers and what can be done to improve them further in the field of teaching English intonation.

For the previously stated reasons, finding solution to the last problem of EFL teacher effectiveness in using and teaching English intonation can be stated as the main concern of this study. For this end, the Audio-Articulation Pronunciation Teaching Model developed by Demirezen (2003, 2004) and Grammar Intonation Model (Cauldwell & Hewings, 1996; Hahn, 2004) were used in this research study to evaluate prospective EFL teachers' knowledge of English intonation and if necessary, to cure their intonation usage problems. The Audio-Articulation Model promotes the production of utterances via Grammar Intonation Model towards Discourse Intonation Model. So, the pronunciation and intonation teaching method mentioned above was also used in some other important studies concerned with English pronunciation teaching. For instance, Hişmanoğlu (2007) used this method in his research study as the data collection tool to remedy the pronunciation problems of Turkish learners of English concerning the production of the [o:] and [oʊ] sounds. Incorporating more pronunciation and intonation teaching activities into English teaching process has a crucial importance for language teaching. In this sense, Hişmanoglu (2006) draws the attention of the foreign language

educators towards incorporating pronunciation teaching and learning more into English teaching area.

1.2. Statement of the Problem

As stated previously, pronunciation and intonation teaching is considered as a neglected part of language teaching process (Demirezen, 2009; Hişmanoglu, 2006). Pronunciation teaching was described as the Cinderella of language teaching (Underhill, 2011) due to its neglected place in the language teaching area. In this sense, as a subcomponent of pronunciation, intonation teaching can be considered of the Cinderella of pronunciation teaching in English, as well. Because of various reasons like time limitations in the language teaching curriculum, the lack of expertise of the teachers in ELT area or not putting much emphasis on the teaching of intonation, this area still remains disregarded in terms of both teaching English intonation in language classes and conducting academic research studies.

Specifically for Turkish EFL context, English and Turkish come from the different language typologies and this fact may increase the importance of teaching English pronunciation and intonation patterns to Turkish learners of English. To attach the necessary importance to the area of teaching intonation, initially the language teachers should be efficient enough in that area. The crucial problem is the fact that there is a lack of research to see the efficiency of especially the prospective EFL teachers concerning both the issue of using correct English intonation and then teaching it. For the reasons mentioned above, it is vital to investigate the prospective EFL teachers' English intonation knowledge and to improve their knowledge if necessary. Last and maybe the most important issue is to take necessary steps to advance the present situation of prospective EFL teachers via providing valuable research in language teaching area.

1.3. Purpose of the Study

This study aimed to explore the proficiency levels of prospective EFL teachers at a major state university in Ankara in Turkey in terms of using the correct intonation patterns in English time clauses. In addition, it aimed to evaluate how their proficiency levels change after being taught the correct intonation patterns via Audio Articulation Model (Demirezen, 2003, 2004) based on Grammar Intonation

Model (Cauldwell & Hewings, 1996; Hahn, 2004). In this respect, the researcher intends to find out the existing problems of English sentence intonation in the prospective EFL teachers' speech and to remediate these problems with the help of Audio Articulation Model (Demirezen, 2003, 2004). The further aim is to raise more effective English teachers in terms of teaching correct intonation patterns in English.

Huynh (2012) showed that there is a difference between the intonation knowledge provided in the books and in real life conversations, which brings up a topic like Discourse Intonation Model. The idea is that to acquire correct intonation patterns, L2 learners should be exposed to native speaker input along with the course book materials. For this reason, the remedial teaching activities in this study were prepared via using authentic native speaker speech segments. The purpose was to provide learners with authentic pieces of English intonation.

1.4. Significance of the Study

The importance of this study lies on the fact that there is considerable lack of research in English intonation teaching and learning area; especially in EFL contexts including Turkey. Since English learners in EFL contexts have a more limited access to use English in their normal life, the importance of learning English intonation patterns increases. In this respect, there is a need to get valuable data to evaluate the current situation and if necessary, to improve the present condition of prospective teachers studying in ELT departments in Turkey about their English intonation knowledge.

1.5. Research Questions

The following research questions were formulated for this research study:

1. Is there any significant difference between pre-test and post-test scores of prospective EFL teachers on using the primary stress on one of the content words in time adverbials in English?
2. Do prospective EFL teachers pause when a dependent clause precedes a main clause in English adverbial clauses of time?
3. When a main time clause precedes a dependent clause, which intonation pattern do prospective EFL teachers use?

4.	Is there any significant difference between pre-test and post-test scores of prospective EFL teachers on using the correct pitch patterns while reading out the time adverbial clauses?

5.	Is there any significant difference between overall pre-test and post-test scores of the prospective EFL teachers about using the correct intonation patterns of English adverbial clauses of time?

1.6. Assumptions and Limitations

The participants of this study comprised 84 prospective EFL teachers at a major state university in Ankara. First limitation can be the number of the participants; it could be better to reach more participants in terms of the generalizability of the results attained at the end of the study. Another limitation could be related to collecting data from only one ELT department students studying in their first year. To collect more comprehensive data, further research can take into account incorporating more ELT departments from different universities in Turkey and students from different grade levels like second, third, fourth year into their studies.

1.7. Definition of Key Terms

In this subsection, definitions of some key terms that are important for this study are provided.

Intonation: Pitch changes happening on a phrase or sentence (Yavaş, 2011); "the combination of pitch, stress and juncture with which an utterance is spoken." (Demirezen, 1986, p.120).

Prosody: "A term used in supra-segmental phonetics and phonology to refer collectively to variations in pitch, loudness, tempo and rhythm." (Crystal, 2008, p. 393).

Pitch: "The attribute of auditory sensation in terms of which a sound may be ordered on a scale from low to high (Crystal, 2008, p. 369).

Stress: "A term used in phonetics to refer to the degree of force used in producing a syllable." (Crystal, 2008, p. 454).

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: "An application of the general sense of this term in phonology, to refer to the perceived regularity of prominent units in speech." (Crystal, 2008, p. 417).

1.8. Conclusion

This chapter has presented the background information about the study, explanation of the problem which is investigated in the study, purpose and significance, research questions, possible limitations of the study and the definitions of key terms. The aim is to explain the general topic of the study and to give some information about what is investigated throughout this study. In the following chapters, detailed information regarding the previous research conducted, pros and cons of them, research methodology of this study along with providing necessary information related to the participants of the study, data collection instrument and procedures, data analysis techniques, results gathered at the end of the study and the discussion of these results in relation with the research questions will be presented. This research will be finished with providing a general conclusion about what is the effect of this study in English language teaching field and with providing some important recommendations for the future studies that will be conducted in relation to the topic of this study.

2. LITERATURE REVIEW

2.1. Introduction

Pronunciation as a cover term and intonation as a subcomponent of pronunciation should have a significant place in English language teaching and learning area. However; pronunciation and intonation teaching does not take the necessary levels of attention in ELT classrooms and even in the language teaching departments in the universities, which are responsible for bringing up competent English language teachers. In this chapter, the definition and the general scope of the term intonation and what it covers are explained. Then, the history and the background of pronunciation and intonation teaching in the world and in Turkey are provided with reference to related academic studies carried out in ELT field beforehand. The purpose was to present the place of English intonation learning and teaching, which is one of the main concerns of this study, in ELT field via examining the situation in one of the English language teaching departments in a university in Turkey. Since it is considered that to teach English intonation to the language learners, firstly teachers should be competent enough to be able to teach it. Therefore, especially the EFL teachers should have the necessary knowledge about English intonation rules and about what to teach and how to teach. For these reasons, the studies conducted on English intonation teaching and learning until recently have been reviewed to show the purposes of conducting this study.

2.2. The History, Background and the Significance of Pronunciation and Intonation Teaching in English

To begin with, it should be borne in mind that using correct intonation patterns in speech is important for many reasons and one of the most important reasons is that it facilitates intelligibility of the speech. Therefore, especially English foreign language learners should be specifically taught about these patterns of intonation.

Celce-Murcia, Brinton and Goodwin (2010, p. 218) mention that;

> *"In any ESL/EFL class where oral skills are thought, ... prosody and grammar must be highlighted and taught, since contextually appropriate control of stress and intonation is an essential part of oral communicative competence that is usually not self-evident to nonnative speakers."*

Concerning the issue of why intonation teaching should be a part of the English language teaching in the EFL/ESL classrooms, Kelly (2012, p. 87) states that;

"Intonation needs to be a feature of classroom language analysis and practice. This will help students towards greater expressiveness and articulacy in English, and also help them to a better understanding of some of the subtleties of native-speaker speech."

Concerning pronunciation teaching in language classrooms as a cover term of intonation teaching, the questions of what and how to teach became crucial (Leather, 1983; Pennington & Richards,1986). Morley (1991) also provides a general look to the pronunciation teaching paradigms and how they have changed throughout the language teaching history. As a term, intonation can be regarded as a sub-branch of pronunciation and also in the pronunciation teaching books, intonation teaching sometimes has a place as a sub-branch. To make the second language (L2) learners acquire more intelligible pronunciation, learning about English intonation was seen as an important step (Nagamine, 2002).

Regarding the intonation teaching process in the language classrooms, what can be taught about intonation is a crucial issue. About this concern, one view mentioned by Vanpatten and Benati (2010) is that L2 learners may not acquire native like fluency in phonology, namely in sound system and pronunciation. On the other hand; they can be native like in acquiring the morphology and syntax of L2. According to this view, phonological component of the language can fossilize; it means that it cannot improve in the learners' minds. However; syntactic and semantic components can carry on developing. These are important views about the issue of what portion of phonology to teach to the language learners. About pedagogical implications concerning what to teach about intonation, Allen (1971) suggested that the teachers should show the relation between punctuation and intonation system. Language teachers should also provide knowledge to L2 learners about how to differentiate between the intonation of isolated sentences and the intonation of segments in the discourse.

The power of using correct intonation lies in the fact that it is a crucial part of the way people express themselves (Kelly, 2012). Using correct intonation patterns while speaking not only makes the speakers clear in the meaning they are trying to convey but also helps the listeners understand the intentions of the speakers correctly. This can be really important to avoid misunderstandings in conversation. Much research (Brazil, 1997; Cauldwell and Hewings, 1996; Celce Murcia et al.,

2010; Gumperz, 1982) shed light on the fact that many nonnative speakers are misunderstood or misinterpreted as being rude or disinterested because of using wrong intonation or stress patterns. To avoid misunderstandings or possible miscommunication between speakers, Kelly (2012) states that intonation gives the listeners hints about the attitudes and feelings of the speakers about what they are uttering. Therefore, intonation is used for a variety of purposes like for making grammatical boundaries clear (phrases and clauses), for identifying sentence types (e.g., statements and questions), and for transferring the speaker's attitude (surprise, irony, anger, etc.) (Trask, 1996).

More recently, Roach (2009) described the functions of English intonation consisting of attitudinal, accentual, grammatical and discourse ones (Table 2.1):

Table 2.1: The Functions of English Intonation

The attitudinal function:
to express attitudes and emotions
The accentual function:
about placing the stress on a most prominent syllable in a word
The grammatical function:
related to helping to understand the grammatical and syntactic structures of the speech via using the information a person can get with the intonation usage
The discourse function:
to make it clear what is new information and what is already mentioned

From these functions of intonation, it can be inferred that intonation can help speakers in terms of all the competencies as grammatical, sociolinguistic, discourse and strategic competence proposed by Canale and Swain (1980).

According to Celce-Murcia et al. (2010), speakers use prosody (intonation, rhythm etc.) in specific circumstances with the purpose of conveying their intentional meaning in a spoken discourse. So, about the functions of intonation, Celce-Murcia et al. (2010, p. 200) state that intonation has "an important conversation management function." It means that the speaker can signal the other speaker to end speaking or to give his/her attention to some important part of the conversation. It also has some social functions like showing the speaker's level of interest to continue the conversation or not, the relationship between the speaker and listener, the speaker's statement of sarcasm etc. If people speak without using

intonation, their speech could sound mechanical like a robot. So, intonation in English is used for many purposes like to expect or ask further information, to approve or disapprove something.

About the semantic function of intonation, it can be stated that in English, intonation makes the meaning of the utterances clear. According to Cauldwell and Hewings (1996), apart from the intonation rules provided in ELT text books, it is more useful for learners to provide them with better intonation descriptions focusing on the communicative value of English intonation. In addition, using different intonation patterns sometimes changes the grammatical category or meaning of the word. So, in some languages, intonation has a more clear-cut function of changing the meaning of the word. For instance, in tone languages like Chinese, the different pitch and movement of the voice on a syllable can change the meaning of the word (Kelly, 2012).

Regarding the various functions of English intonation, Brazil (1997) examined the communicative value of question intonation in English like taking uncertainty away from the speaker's mind. Concerning both the pragmatic and semantic functions of English intonation, Grabe, Rosner, Garcia-Albea and Zhou (2003) investigated the effect of different first languages on identifying fall-rise intonation pattern in English. The participants had English, Spanish and Chinese as first languages and they found out that first language can affect the understanding of different intonation contours in the second language. Warren (2005) studied intonation in different language varieties like the intonation of New Zealand English and tried to find systematic intonation differences in each variety. Moreover; Constant (2012) investigated English rise-fall-rise intonation pattern and its effect on disambiguation. Steedman (2014) conducted a comprehensive study about the semantics of English intonation in relation to discourse context and grammar in his recent research study.

Concerning the grammatical function of intonation, some researchers tried to explain the relationship between grammar and intonation by classifying the intonation patterns according to three or four types of sentences, which are statements, yes-no or wh-questions, commands and exclamations (O'Connor & Arnold, 1961; Thompson, 1995, p. 237). It is a structural classification of sentence types in English in relation to intonation patterns. Related to these grammatical

classes, Bolinger (1965) stated that "intonation has been invoked to define grammatical classes ever since the first discovery that most questions go up and most statements come down" (p. 95). According to Crystal (1969), grammatical patterns are related to the study of intonation as long as a change in intonation requires a change in the syntactic structure of a sentence or utterance. As a type of research methodology, Crystal (1969) stated a way of studying intonation patterns related to pre-determined grammatical categories like the intonation of clauses. This is part of the research methodology used in this research study. In addition, Crystal (1969) stated the aspects coinciding with intonation and grammar as the following: tone-unit structure, tonicity and the placement of nuclear tone.

After clarifying some views related to what to teach about intonation and different functions of intonation, some research studies about the pedagogical implications of English intonation teaching in language classrooms are presented. For instance, Leon and Martin (1972) looked the relation between applied linguistics and the teaching of intonation in English and he informed about intonation being the most difficult linguistic feature to comprehend. This result is important to grasp why intonation teaching does not take considerable attention in language teaching classrooms. So, the reason is the difficulty of both understanding and teaching of it.

Bot and Mailfert (1982) showed in their research study that training in intonation caused considerable improvement in the production of correct intonation patterns in their student participants. The importance of raising English learners' awareness of prosodic features of language including intonation was acknowledged by Pennington and Ellis (2000), as well. To teach about the discourse intonation, Beaken (2009) used narrative as a teaching method in relation to Brazil's discourse intonation system. About the same issue, Chapman (2007) explained discourse intonation as "explaining how intonation patterns in English affect the communicative value of speech, through the use of falling and rising tones along with changes in pitch." Braun and Chen (2010) try to find out the effect of intonation from semantic aspect and looked at the intonation of the word "now/nu" about solving the ambiguity in Dutch and English.

There are some research studies about the importance of intonation teaching and its results especially in EFL classrooms. In a recent study, Mitrofanova (2012)

conducted a research about the awareness of EFL students about the intonation pitch patterns in complex English sentences and found out that intonation awareness raising activities are useful for language learners. In contrast with the EFL contexts, some researchers investigated the issue of intonation acquisition in immersion situation. Kang (2013) found out that students of immersion English education have more native like intonation patterns in their speech than the other students who have non-immersed education. It could be stated that intonation teaching has gradually become a concern in different language learning and teaching environments as stated above.

The importance of supra-segmental training in L2 acquisition has been acknowledged more often recently. Meng et al. (2009) mentioned that L2 learners must have correct supra-segmental usage for effective communication. About the teaching of supra-segmental features in Turkey, it can be stated that teaching English stress patterns to Turkish EFL learners is a limited area in Turkey. Just a few researchers like Hişmanoğlu (2012) conducted some studies in that area and evaluated EFL learners' success of English stress patterns. Therefore, there is a considerable lack of research related to teaching of English supra-segmental features especially in Turkish EFL context. This is one of the main reasons of conducting this research study.

To state the relationship between grammar and intonation, Halliday (1967, p.10) stated the sentences below;

> *"It is not enough to treat intonation systems as if they merely carried a set of emotional nuances ... English intonation contrasts are grammatical"*

Halliday (1985) described 5 simple 2 compound primary tones in English as being falling, high rising, low rising, falling-rising, rising-falling, falling plus low rising, rising-falling plus low rising and explained the relation between tone and meaning. About the relationship between grammar teaching and intonation teaching, Larsen-Freeman and Celce-Murcia (1998) gave detailed descriptions of connectors of all types in English like causality, comparison or time in grammatical perspective for ESL/EFL teachers. They also give some possible intentions of speakers when main clause precedes the dependent clause or vice versa in these complex sentences but they did not provide the intonation knowledge of these connectors. Biber et al. (2002) gave very long and detailed information about

English adverbials of all types including the time adverbials. They also gave semantic and syntactic descriptions of the positions of these adverbials but once more, they did not give any information about the intonation patterns of adverbial clauses.

Kroeger (2005) mentioned grammatical rules about complex time adverbial clauses in English and he drew tree diagrams to show the syntactic rules of these clauses but he didn't provide the intonation rules. Vince (2008) also explained all the grammatical and punctuation rules of adverbial clauses in English with giving reference to semantic usages as well but no information was provided about the intonation usages. The same issue of providing the grammatical structure of time adverbials in most cases together with the knowledge of punctuation in complex sentences but providing no information about the intonation usage and its effects are available in many grammar books, as well (Azar, 1989; Azar & Hagen, 2006; Coe, Harrison, & Paterson, 2006; Murphy, 2013; Willis, 2011). Also, in some pronunciation teaching books (Hancock, 2006), basic sentence stress patterns, falling and rising tones in questions and in simple sentences are introduced but the intonation patterns in complex sentences are again disregarded.

There is a research gap about the teaching of intonation in the world as mentioned by Lantolf (1976). He focused on the issue that there is a gap between the intonation research and "the implementation of sound pedagogical materials based on this research" (Lantolf, 1976, p. 267). Recently, the fact that not enough amount of attention is paid to the teaching of English intonation in language classrooms has been acknowledged in ELT area. About the reasons of not giving much attention to the teaching of intonation in language classrooms, Kelly (2012) points out that students experience difficulty with intonation because much attention is given to the teaching of grammar and vocabulary. Additionally, Kelly (2012) states that while using correct intonation patterns, some unconscious process goes on in the mind of the speaker. It may be because of that unconscious nature of intonation that it is found to be harder to learn and also to teach. From that point of view, if the teaching of intonation is considered specifically, the language teachers should bring this unconscious process of the mind of learners to conscious level in the language classroom, which is not an easy task to do.

Intonation teaching parts have taken some place in the books recently. For instance, there are some books in which there are sections about pronunciation and intonation teaching but in a limited number such as "Teaching pronunciation: A reference for teachers of English to speakers of other languages" (Celce-Murcia M., Brinton, M. D., & Goodwin, M. J., 2010), "How to teach pronunciation" (Kelly, 2012). Studies about intonation teaching in EFL contexts have begun to be conducted more often in recent years. Yangklang (2013) conducted a research study to improve first year university students' English stress and intonation abilities and used a pre-test post-test experimental research design.

The lack of knowledge about intonation teaching in language teacher education programs is one of the main concerns of this study. Johns (1980) pointed out that although intonation has a long relationship with ELT, the integrating of intonation in a language syllabus has been kept at a minimum degree. In few ELT course books, intonation is seen as the integral part of the syllabus. So, as mentioned earlier, it is a neglected part compared with the other branches of language like grammar, vocabulary etc.

The lack of importance attached to the teaching of intonation component in English pronunciation teaching was acknowledged by Taylor (1993). He established a relationship between the issue of neglecting intonation teaching with the fact that the rules of English intonation are rather complicated and they are not available to most English teachers. Therefore, teachers don't have the necessary intonation knowledge to be able to teach it. The lack of incorporating the research results into language teaching area was also mentioned by Levis (1999). It is mentioned by Jenkins (2005) that English pronunciation teaching has the main obstacle in recent years because of the failure to educate English teachers. However, recently, there has been some importance attached to increasing teachers' English intonation knowledge by making them aware of broad dimensions of intonation and incorporating English intonation instruction into teacher training curricula (Jeidani, 2014, p. 746).

The lack of knowledge of pronunciation and intonation in English teachers in Turkey has been a great concern for Turkish teachers of English. Especially in teacher training programs, it is an important field of study. Demirezen (2005) stated that there is a lack of pronunciation teaching methodology in the teacher

trainees and the foreign language teachers working in the teaching field. To cure the pronunciation and intonation errors of prospective English teachers and to provide them with the methodology to teach correct pronunciation and intonation patterns in English, Audio Articulation Model developed by Demirezen (2003, 2004) was used and tested in many research studies. This pronunciation and intonation rehabilitation model was used with prospective English teachers studying in teacher training programs in Turkey to cure their pronunciation difficulties related to some sounds of English like the /v/ and /w/ sounds (Demirezen, 2005), the /t/ and /d/ sounds in American English (Demirezen, 2006), the /æ/ and /ɛ/ sounds (Demirezen, 2006), the /æ/ and /ə/ sounds (Demirezen, 2007), the /ŋ/ and /ŋk/ sounds (Demirezen, 2007), the /æ/and /ʌ/ sounds (Demirezen, 2008), and the /r/ sound (Demirezen, 2013). These research studies are concerned with segmental phonemes in English. Here, it is appropriate to show the relations in the table below;

Table 2.2: Segmental and Supra-segmental Phonemes in English

Applied Phonology

↓	↓
Applied Phonetics	*Applied Phonemics*
Consonants	Stress phoneme
Vowels	Juncture phoneme
Semi-vowels	Pitch phoneme
Approximants	Tempo
	Rhythm
	Melody
	Prosody

Supra-segmental and segmental errors can be corrected if non-native English teachers and students are made aware of these errors in their intonation (Demirezen, 2009). For this reason, the Audio Articulation Model used in this research study was specifically designed with the purpose of remedial pronunciation teaching. It can be adapted to use for intonation teaching purposes, as well. The model was used in the present study for providing a remedial intonation instruction for prospective English teachers and it was originally designed to cure the fossilized pronunciation errors of students studying at teacher education departments (Demirezen, 2010; Hişmanoğlu, 2007).

In Turkish context, the importance of using correct intonation contours in grammatical structures was investigated by a few researchers. For instance, in his recent research study, Demirezen (2014) looked at the usages of intonation patterns in English tag questions by MA English language teaching department students and stated that the total failure of the participants shows that intonation teaching should be a must in English teacher training departments in the universities in Turkey. This is a very important conclusion about the necessity to educate prospective EFL teachers about English intonation teaching, which is one of the main concerns of this study.

Since complex sentences in English time adverbials are investigated in this study, explaining sentence types in English is considered as necessary. A subject and a main verb comprise a sentence or a clause and a sentence can contain one or more clauses. A sentence that contains only one clause is a simple sentence. If a sentence comprises two or more clauses which are combined by a coordinating conjunction is named as a compound sentence. Additionally, a complex sentence consists of at least two clauses: a main clause and a dependent clause. The dependent clause is a subpart of the main clause and adds information to it (Altenberg & Vago, 2010). To make a connection with this grammatical terminology and intonation, Crystal (1969) stated a gap between the comprehension and the teaching of sentence intonation in English. He explains the reason as analyzing the sentences just as the main clause and not analyzing complex sentences in connected speech.

If English adverbial clauses in English, which are the main topic of this study, are categorized, the basic categories are as follows: time, contrast, place, cause, result, purpose, conditional, and manner (DeCapua, 2008). The type or category of an adverbial clause is determined by its subordinator. For example, the subordinators "after" and "when" introduce adverbial time clauses. DeCapua (2008) provides information about different kinds of adverbial clauses and their position. To give an example, main clause could come after the subordinate clause and vice versa. DeCapua (2008) looks at the issue from the grammatical perspective and does not provide any information about the intonation patterns of those clauses. Therefore, it can be stated that there is not a detailed description of

the intonation patterns of English time adverbial clauses in anywhere, and therefore, this study has an importance to provide that knowledge to ELT field.

2.3. The Definition and Scope of Intonation and Other Related Prosodic Features

In this part, detailed definitions of the term intonation and the other related features are provided to shed light on the components of English intonation that are investigated in this study. In ELT field, there are various definitions of the term intonation. Providing these definitions can be more helpful to grasp the importance of it in the language learning and teaching process. Initially, O' Connor and Arnold (1961) explained intonation as the expression of speaker's attitude in speech and they attached importance to the attitudinal function of intonation. So, they accepted that there are some different functions of intonation. Halliday (1970) on the other hand, did not accept a multifunctional approach to the intonation and defined intonation as a set of grammatical options. According to Giegerich (1992), "the intonation of an utterance is the pitch contour associated with it and to determine these pitch contours, grammatical, semantic, situational and context factors should be taken into account" (p. 251). Additionally, Trask (1996, p. 184) mentioned it as "the use of pitch, and possibly of additional prosodic phenomena such as loudness, tempo and pauses, over a stretch of utterance generally longer than a single word for the purpose of conveying meaning. Coming to more recently provided definitions of intonation, Crystal (2008) defined intonation as "a term used in the study of supra-segmental phonology, referring to the distinctive use of patterns of pitch, or melody" (p. 252). Celce-Murcia et al. (2010) refer intonation as a feature of pronunciation that reveals speaker's intention. They regard intonation as a subcomponent of pronunciation.

Kelly (2012) on the other hand, looks at the issue from a more mechanic perspective and defines intonation as "the way the voice goes up and down in pitch when we are speaking" (p. 86). Zsiga (2013) defined the term as using supra-segmental features to convey discourse level meaning. This recent definition of intonation is important because it reveals the fact that intonation is used to transfer information bigger than word or sentence level. Therefore, intonation patterns have communicative functions in speech. Lastly, Ladd (2014)

defined intonation as "the use of supra-segmental phonetic features to convey sentence level pragmatic meanings in a linguistically structured way" (p. 6).

Especially in the recent definitions of intonation, the importance of communicative function of intonation and the concept of intelligibility have become more and more important. The concepts of intelligibility and accuracy are important to comprehend the importance of intonation in English. Intelligibility is mostly related to being understood by the other speaker in a conversation. On the other hand; accuracy is more concerned with using the correct grammatical patterns in speech.

As it can be grasped from all the definitions above, to understand how English intonation works, some other terms related to intonation should also be provided. Intonation is related to supra-segmental features of English but segmental features should also be explained to make the difference between the two terms clear. Rischel (2009) described the segmental units as vowels and consonants in a language and prosodic or supra-segmental features as stress, pause etc. Explaining these supra-segmental features is crucial for this study to make the importance of using correct intonation patterns in English clear. Here it can be stated that there are different levels of information in speech as follows: linguistic as the meaning of the utterance, paralinguistic as showing the attitude and nonlinguistic as indicating the health or emotional state of the speaker. Both segmental and supra-segmental features are related to these levels of information provided in speech.

To describe the relation between segments and supra-segmental features, Ashby (2011) mentions intonation as contributing to all sorts of tiny details of speech not conveyed by segments. These can comprise the information about focus, grammar or about the speaker's attitude. So, it can be mentioned that intonation is used almost in all the languages to convey feelings like anger, happiness and attitudes like being polite etc. This is one of the most important strengths of using correct intonation patterns especially in the foreign language to make oneself more clear about his/her speech intention and to avoid misunderstandings. About the relationship among different supra-segmental or prosodic features, Pike (1945) mentioned the interdependence of intonation, stress, quantity, tempo, and rhythm and voice quality. Crystal (1969) proposed a description of prosodic systems,

which was more comprehensive and broad with the addition of voice quality, tempo, and continuity and duration.

Intonation is one of the supra-segmental or prosodic features of English as mentioned earlier and prosodic features have great importance for the communicative value of what is said. It means that the way one person says something becomes more important than what s/he says (Crystal, 1969). Crystal (1969) argued that segmental features can be more easily defined than supra-segmental features in English. He also stated that these features are very important because omission of them would create linguistically problematic utterances which could be judged as problematic by the native speakers.

Prosody is a term used in supra-segmental phonetics and phonology referring to changes in pitch, loudness, tempo and rhythm (Crystal, 2008). Prosody is described by Mannell, Cox and Harrington (2014) as the study of how the rhythm of speech affects the meaning of the utterance. In these definitions, it can be stated that prosody is a more comprehensive concept than intonation. The study of prosody is the study of supra-segmental features of speech. In the Table 2.3, a more detailed description of prosody in different approaches is provided.

Table 2.3: The Description of Prosody in Different Approaches

Discourse approaches	look prosody from the perspective of creating fluent interactions
Functionalist approaches	are more concerned with its strength in conveying the intended meaning in social interactions
Pragmatics	tries to find out the literal meaning of a sentence and the speakers' intentions of uttering it

To give more detailed definitions of supra-segmental features, juncture refers to the phonetic boundary features distinguishing grammatical units like morpheme, word or clause (Crystal, 2008). As another supra-segmental feature, pitch is described as the frequency of sound (Trask, 1996). 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). In addition, rhythm as a term refers to "the perceived regularity of prominent units in speech." (Crystal, 2008, p. 417).

The definitions of both segmental and supra-segmental phonology should also be provided. Segmental phonology analyses speech into different segments, like

phonemes. On the other hand; supra-segmental phonology analyses those features extending over more than one segment, such as intonation contours that are described above (Crystal, 2008).

Phoneme is "the minimal unit in the sound system of a language" (Crystal, 2008, p. 361). Allophones are the different realizations of phonemes (Crystal, 2008).

Table 2.4: The Supra-segmental Phonemes in Intonation

Stress phonemes	• Primary stress phoneme • Secondary stress phoneme • Tertiary stress phoneme • Weak stress phoneme
Pitch phonemes	/4/: Extra high pitch phoneme /3/: High pitch phoneme /2/: Normal pitch phoneme /1/: Low pitch phoneme
Juncture phonemes	Internal juncture phonemes; • internal open juncture phoneme • internal close juncture phoneme External juncture phonemes; • Falling juncture phoneme • Rising juncture phoneme • Sustained juncture phoneme • Rise-fall juncture phoneme • Fall-rise juncture phoneme

In this research, 4 pitch phonemes of English are taken into consideration;

/4/: Extra high pitch phoneme

/3/: High pitch phoneme

/2/: Normal pitch phoneme

/1/: Low pitch phoneme

The following are the pitch patterns in English (Demirezen, 2009);

/231/: statement or declarative attitude

/233/: question pitch forms (yes-no, interrogative)

/232/: incompleteness, doubt, or uncertainty pitch

/223, or 332/: pitch for calling

/234/: the shouting pitch

/221/: the neutral pitch

Stress, as one of the components of English intonation that is investigated in this study, is described by Ashby (2011) as a composition which proceeds from intensity (how loud the syllable is with regard to circumjacent syllables), duration (the time span of syllable lasting with regard to circumjacent syllables), and frequency (the pitch transmitted to the listener). Yavaş (2011, p. 156) gives a definition of stress as being "a cover term for the prosodic features of duration, intensity, and pitch. Stress is described by Demirezen (1986) as "an articulatory term of description, is also known as accent, is the embodiment of the accumulation of energy imposed upon a sound on a sound group in the process of speech" (p. 108). Accent is described by Trask (1996) as a special way of pronouncing a language, as typical of an individual, a geographical region or a social group.

About the effects of stress on English sentences, Bolinger (1965) stated that somewhat uncertain nature of syntax might be more comprehensible and certain and added that speakers put the accents on a part of the sentence that they think is important. Again about the stress and pause placement in English sentences Adams (1979) found out the effect of L1 influence on foreign language sentence intonation learning. According to Giegerich (1983) word stress functions as an input for differentiating sentence stress. Putting primary stress in an English complex sentence is very important to create intelligibility. Anderson (1993) also reached the similar results about the effects of stress placement in English sentences among the nonnative speakers of English and their intelligibility to native speakers. Listeners hear some accented words as prominent with the help of intonation usage of the speaker. Additionally, Jenkins (2005) mentioned that the most errors related to comprehensibility of the speech occur at the word stress level and then rhythm and intonation levels especially for nonnative speakers of English.

In addition, it was stated by Demirezen (2012) that primary stress is generally misused by nonnative speakers of English. On that matter, Hahn (2004) investigated the native English speakers' reactions of nonnative usage of primary stress in spoken language and found out the increasing comprehensibility of the speech with correct primary stress placement. From the results of that study, it can be concluded that the correct usage of primary stress while articulating the

sentences in English could be an enhancer point regarding the intelligibility of nonnative speech. Considering EFL settings like Turkey, this aspect should take more of the attention of both language researchers and learners.

In this research, 4 stress phonemes are taken into consideration;

/ˈ /: Primary stress. Eg. /ˈdɒktər/

/ˌ/: Secondary stress. Eg. /ˌɪnfərˈmeɪʃən/

/ \ /: Tertiary stress. Eg. Partnership: "part" syllable takes the primary stress, "ship" takes the secondary stress and "ner" takes the tertiary stress.

/v/: Weak stress. Schwa takes the weak stress in English.

Another issue related to stress is that there can be lexical category differences in English according to use of word stress, for this reason; it can be defined as lexical stress. Ashby (2011) gives the example of English noun "import" and verb "to import". In the first one the primary stress is on the first syllable but in the latter one, it is on the second syllable. Here in these examples, stressed syllable is named as the nucleus (Wells, 2014).

Coming to a bigger unit, sentence stress is described as "the name given to the pattern of rhythmic beats contained within an intonational phrase" (Ashby, 2011, p. 168). As being a stress language, sentence stress involves a choice of word stresses from a possible syntactic group. On that issue, Ashby (2011) mentions three levels of word stress, nucleus as the most prominent type, unstressed syllable as the less prominent and between the two the rhythmic beats. A primary stress of a speech unit is caused by a pitch change according to Gussenhoven and Jacobs (2012).

Loudness, rhythm and pitch are the levels of prosody (Mannell, Cox, & Harrington, 2014) and they are related to stress. One of the most important concepts here for English speakers is pitch. In English, pitch is dynamic not static. This pitch change in English is described as accent, a stress type in an intonation language like English by Ashby (2011). On a recent study, Mannell, Cox and Harrington (2014) have stated that a speaker uses a pitch accent together with the vowel of the primary stressed syllable of each word accented. As a different concept, tone is generally used to refer to the lexical use of pitch to distinguish among meanings.

In a tone language, a tone in a word or morpheme can change the meaning or the grammatical category of a word. Pitch is also used to differentiate words. In intonation language, pitch is not used to distinguish words (Hayes, 2009). In addition, pitch variation is used in languages to express discourse meaning and to mark phrases. Therefore, it can be stated that there are two structures in an intonation contour; one of them being morphological and one of them being phonological (Gussenhoven, 2004).

In this research following juncture phonemes are handled:
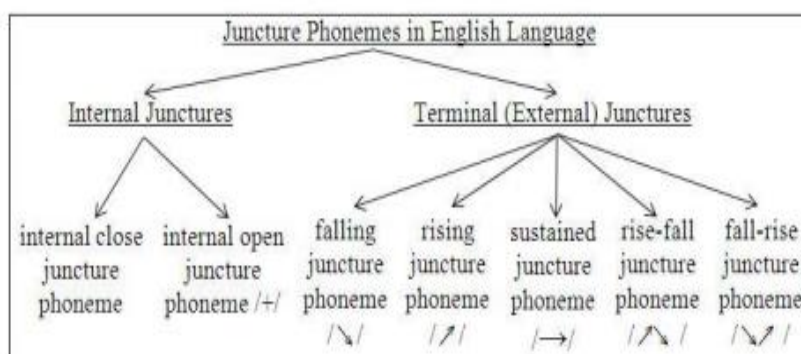
Figure 2.1. Types of Junctures in English

Adapted from Demirezen (2013: 207)

As another prosodic feature, pause or juncture can be analyzed by two aspects as being formal and functional and the first aspect is generally neglected (Crystal, 1969). In a time clause for example, the speakers need to pause when the independent clause precedes the dependent clause for clear intelligibility, which is related to one of the research questions of the present study. Therefore, juncture is used to organize main and subordinate clauses in a whole sentence. Namely, it is used to divide the whole sentence into different groups. For the intonation, the place of pause has a very important function (Pickering, 2002). There is a strong relationship between the usage of correct pause in the speech and intelligibility of the speech (Paterno, 2003). So, artificial usage of pauses can decrease the intelligibility of the speech.

Jenkins (2005, p. 45) states that;

> *"Students have problems in dividing the stream of speech into word groups ..... Failure to divide the speech stream into these units can result in grammatical ambiguity and misinterpretation."*

In this way, the speech can sound unnatural and non-native. One other aspect related to juncture is that the perception and production of juncture phoneme in teacher education have never received serious recognition in the departments of English language education at the Faculty of Education in Turkey (Demirezen, 2009). The absence of juncture exercises on course books is also acknowledged as a handicap on the acquisition of English intonation by the non-native English teachers. As indicated by Demirezen (2009, p. 2780)

> *"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."*

Since the place of a juncture in a sentence can indicate perceptual differences, English learners and teachers should be aware of such differences and use them in their speech. For this reason, the intonation of many non-native teachers in Turkey sound unnatural and accentuated as acknowledged by Demirezen (2013).

Other than Audio-articulation Model, there are a few pronunciation teaching models. There are intuitive-imitative approach and analytical-linguistic approach (Celce-Murcia, Brinton & Goodwin, 2010) for pronunciation teaching. Intuitive-imitative Approach depends on the learners' ability to listen and to imitate the rhythm and sounds of the target language without providing any explicit information. So, students only imitate the native speaker model. Analytic-linguistic Approach, on the other hand, uses such tools as a phonetic alphabet, articulatory descriptions etc. to help listening, imitation, and production. It uses contrastive minimal pair drills and focuses on the problem-causing sounds of the target language to the learners. The model called the Audio-Articulaton, in principle, is based on the Analytic-linguistic Approach (Demirezen, 2010). For this reason, in this study, the principles of Analytic-linguistic Approach are used while preparing English intonation teaching exercises for remedial teaching lessons.

In the present study, the intonation of complex adverbial clauses in English was chosen to be investigated. One of the most important reasons of this choice is that even the simple sentence structures can cause problems for Turkish university students (Demirezen, 2012). For this reason; complex sentences can be much more problematic to learn and use correctly. In this sense, providing a brief historical knowledge on the issue is necessary. Church (1967) proposed a "stress

terminal pattern" (p. 427), a primary stress preceding a terminal juncture and requires punctuation mostly. The goal is to punctuate sentence with the correct intonation pattern according to semantic meaning. Being directly related to the present study, Hartvigson (1969) defined the intonation patterns of English adverbial clauses and stated that in natural speech there is a syntactic boundary between the adverbial clause and the main clause in relation to their position. To describe adverbials, Hartvigson (1969) proposed four different intonation patterns as dependent, independent, emphatic and tail intonation.

Lastly, covering different models for phonological analysis can be helpful. Initially, Optimality Theory is important to explain the grammar phonology relationship. Barlow and Gierut (1999) regarded Optimality Theory as "a new view of generative phonology" (p. 1483). In this view, there are constraints not rules. It is different from other approaches to phonological analysis like Auto-segmental phonology and linear phonology which use rules rather than constraints. So, a child acquiring the phonology of English should learn the lexicon and the universal constraints according to Optimality Theory.

The lack of research studies conducted in the English intonation field in general and about the intonation patterns of time adverbials in English was acknowledged beforehand. One last issue to be mentioned is that considering the intonation teaching of time adverbials, there is almost no thesis study conducted.

There are detailed intonation descriptions of the 48 sentences in the data collection corpus below. This intonation analysis incorporates the information about sentence stress, pitch and juncture rules of these sentences. It must be noted that sentence stress in English dependent on intonation since sentence stress is the rhythm of the language and eases for the speakers to understand the language. For this reason, putting the stress in to correct words while speaking the language has a crucial importance to prevent the possible misunderstandings or miscommunications between the speakers. It should be bear in mind that changing the stressed word in a sentence in English can change the meaning of the sentence totally. In English, content words in a sentence are stressed and function words do not normally take the primary stress. This is a basic rule of thumb in English sentence stress patterns. Content words comprise verbs, nouns, adjectives, adverbs, negative auxiliaries and interrogatives.

Here is an example:

I like BÓOKs. (I only like books, not magazines.)

I LÍKE books. (I liked them; I do not hate them.)

Í like books. (I, not anybody else like books.)

On the other hand; structure or function words are prepositions, auxiliary verbs, conjunctions, articles and pronouns. While speaking, which words should take the primary stress in a sentence is very important. The other components of English intonation dealt with in this study are pitch and juncture as it can be seen in the intonation analysis of the sentences below. The intonational analysis of the sample sentences that were used as a corpus in this study can be described as follows:

Group 1: before, after, when, while, since

<u>Sentence 1</u>

Before I could say **ÁNY**thing more, Holmes had **RÚSH**ed off towards the station. **Stress phoneme**

[2]Before I could say [3]anything more[2], [2]Holmes had [3]rushed off towards the station[1]**Pitch phonemes**

Before I could say anything more → Holmes had rushed off towards the station ↓ **Juncture phoneme**

INTONATION: /[2]Before I could say [3]**ÁNY**thing more[2]→ [2]Holmes had [3]**RÚSH**ed off towards the station[1]↓ /

<u>Sentence 2</u>

She wanted to **FÍnish** cleaning her room before she went out.   **Stress phoneme**

[2]She wanted to[3] finish cleaning her room before she went out[1] **Pitch phonemes**

She wanted to finish cleaning her room before she went out ↓ **Juncture phoneme**

INTONATION: /[2]She wanted to[3] **FÍ**nish cleaning her room before she went out[1]↓/

<u>Sentence 3</u>

You have to **PÁSS** a test before you can get a license. **Stress phoneme**

[2]You have to[3] pass a test before you can get a license.[1] **Pitch phonemes**

You have to pass a test before you can get a license ↓ **Juncture phoneme**

INTONATION: / **²**You have to**³** **P**Á**SS** a test before you can get a license**¹**↓/

Sentence 4

After you had called the po**L**Í**CE,** what did you do?   **Stress phoneme**

²After you had called the **²**police, what did you do **³** **Pitch phonemes**

After you had called the police → what did you do? ↑**Juncture phonemes**

INTONATION: /**²**After you had called the **²**po**L**Í**CE** →what did you do **³** ↑ /

Sentence 5

Zimmerman changed his **N**Á**me** after he left Germany. **Stress phoneme**

²Zimmerman changed his **³** name after he left Germany **¹** **Pitch phonemes**

Zimmerman changed his name after he left Germany ↓ **Juncture phoneme**

INTONATION: / **²**Zimmerman changed his **³** **N**Á**me** after he left Germany **¹** ↓/

Sentence 6

I will do the **SH**Ó**P**ping after I finish work.   **Stress phoneme**

²I will do the **³**shopping after I finish work**¹** **Pitch phonemes**

I will do the shopping after I finish work↓   **Juncture phoneme**

INTONATION: /**²**I will do the **³**SH**Ó**P**ping after I finish work**¹**↓/

Sentence 7

He is going to get a **J**Ó**B** when he leaves university. **Stress phoneme**

²He is going to get a **³**job when he leaves university **¹** **Pitch phonemes**

He is going to get a job when he leaves university ↓ **Juncture phoneme**

INTONATION: / **²**He is going to get a **³** **J**Ó**B** when he leaves university **¹**↓/

Sentence 8

Leonard was **N**Í**NE** when his father died. **Stress phoneme**

²Leonard was **³**nine when his father died**¹** **Pitch phonemes**

Leonard was nine when his father died ↓ **Juncture phoneme**

INTONATION: /²Leonard was ³ **NÍNE** when his father died¹↓/

Sentence 9

When you get to the **ÓF**fice, you will see a **TÁLL** man named Sean. **Stress phonemes**

²When you get to the ³office², ²you will see a ³tall man named Sean¹ **Pitch phonemes**

When you get to the office → you will see a tall man named Sean ↓ **Juncture phonemes**

INTONATION: /²When you get to the ³ **ÓF**fice ² →²you will see a ³ **TÁLL** man named Sean¹ ↓/

Sentence 10

While she was a**SLÉEP**, thieves **BRÓKE** in and stole her bag. **Stress phonemes**

²While she was ³asleep², ²thieves ³broke in and stole her bag¹ **Pitch phonemes**

While she was asleep → thieves broke in and stole her bag ↓ **Juncture phonemes**

INTONATION: /²While she was ³ a**SLÉEP** ²→ ²thieves ³ **BRÓKE** in and stole her bag¹ ↓/

Sentence 11

They ar**RÍ**ved while we were having dinner. **Stress phoneme**

²They ³arrived while we were having dinner¹ **Pitch phonemes**

They arrived while we were having dinner ↓ **Juncture phoneme**

INTONATION: /²They ³ ar**RÍ**ved while we were having dinner¹↓/

Sentence 12

What did you **DÓ** while you were there? **Stress phoneme**

²What did you ³do while you were there³ **Pitch phonemes**

What did you do while you were there ↑ **Juncture Phoneme**

INTONATION: /²What did you ³ **DÓ** while you were there³↑/

Sentence 13

I haven't played **RÚGBY** since I left university. **Stress phoneme**

²I haven't played **³**rugby since I left university **¹ Pitch phonemes**

I haven't played rugby since I left university ↓ **Juncture phoneme**

INTONATION: /**²**I haven't played **³ RÚGBY** since I left university **¹**↓/

Sentence 14

She has lived in **LÓN**don since she was twenty. **Stress phoneme**

²She has lived in **³**London since she was twenty**¹ Pitch phonemes**

She has lived in London since she was twenty ↓ **Juncture phoneme**

INTONATION: /**²**She has lived in **³LÓN**don since she was twenty**¹**↓/

Sentence 15

Since we **MÓVED** here, it has been one **PRÓB**lem after another. **Stress phonemes**

²Since we **³**moved here**²**, **²**it has been one **³** problem after another**¹ Pitch phonemes**

Since we moved here → it has been one problem after another ↓ **Juncture phonemes**

INTONATION: /**²**Since we **³ MÓVED** here**²** → **²**it has been one **³ PRÓB**lem after another**¹**↓/

Group 2: once, every time, whenever, by the time

Sentence 1

Once I get him a **JÓB**, he will be **FÍNE**. **Stress phonemes**

²Once I get him a **³**job**²**, **²**he will be **³**fine**¹ Pitch phonemes**

Once I get him a job→ he will be fine ↓ **Juncture phonemes**

INTONATION: /**²**Once I get him a **³ JÓB ²**→ **²**he will be **³ FÍNE¹**↓/

Sentence 2

I will send you my new ad**RˈESS** once I have found somewhere to live. **Stress phoneme**

²I will send you my new**³** adress once I have found somewhere to live **¹** **Pitch phonemes**

I will send you my new adress once I have found somewhere to live ↓ **Juncture phoneme**

INTONATION: /**²**I will send you my new**³** ad**R**'**ESS** once I have found somewhere to live **¹**↓/

Sentence 3

We'll send your **TÍC**kets once we've **RECEÍVED** your cheque. **Stress phoneme**

²We'll send your **³**tickets once we've received your cheque **¹** **Pitch phonemes**

We'll send your tickets once we've received your cheque ↓ **Juncture phoneme**

INTONATION:/ **²**We'll send your **³TÍC**kets once we've **RECEÍVED** your cheque **¹**↓/

Sentence 4

The roof **LÉAKs** every time it rains. **Stress phoneme**

²The roof **³**leaks every time it rains **¹** **Pitch phonemes**

The roof leaks every time it rains ↓ **Juncture phoneme**

INTONATION: /**²**The roof **³** **LÉAKS** every time it rains **¹**↓/

Sentence 5

I feel very ex**CÍ**ted every time I see him. **Stress phoneme**

²I feel very **³**excited every time I see him**¹** **Pitch phonemes**

 I feel very excited every time I see him↓ **Juncture phoneme**

INTONATION: /**²**I feel very **³** ex**CÍ**ted every time I see him**¹**↓/

Sentence 6

Every time we get together with old **FRIÉNDS**, we spend great **TÍME** together. **Stress phonemes**

²Every time we get together with old **³** friends**²**, **²**we spend great **³**time together**¹** **Pitch phonemes**

Every time we get together with old friends→ we spend great time together ↓ **Juncture phonemes**

INTONATION: /²Every time we get together with old ³ **FRIÉNDS** ²→²we spend great ³ **TÍME** together¹↓/

Sentence 7

Larry always **BLÁMES** me whenever anything goes wrong. **Stress phoneme**

²Larry always ³blames me whenever anything goes wrong¹ **Pitch phonemes**

Larry always blames me whenever anything goes wrong ↓ **Juncture phoneme**

INTONATION: /²Larry always ³ **BLÁMES** me whenever anything goes wrong ¹↓/

Sentence 8

Whenever I hear that **TÚNE**, it **MÁKES** me think of you. **Stress phonemes**

²Whenever I hear that ³tune², ²it ³makes me think of you¹ **Pitch phonemes**

Whenever I hear that tune → it makes me think of you ↓ **Juncture phoneme**

INTONATION: /²Whenever I hear that ³ **TÚNE** ²→ ²it ³ **MÁKES** me think of you¹↓/

Sentence 9

You can **CÓME** and visit me whenever you want. **Stress phoneme**

²You can ³come and visit me whenever you want ¹ **Pitch phonemes**

You can come and visit me whenever you want ↓ **Juncture phoneme**

INTONATION: /²You can ³ **CÓME** and visit me whenever you want ¹↓/

Sentence 10

The phone was **RÍNG**ing but by the time she got in**DÓOR**s, it had **STÓP**ped. **Stress phonemes**

²The phone was ³ringing² but ²by the time she got ³indoors², ²it had ³stopped ¹ **Pitch phonemes**

The phone was ringing→ but by the time she got indoors → it had stopped ↓ **Juncture phonemes**

INTONATION: /²The phone was ³**RÍNG**ing² → but ²by the time she got ³in**DÓOR**s²→²it had ³ **STÓP**ped ¹↓ /

Sentence 11

The rain had already **STÓP**ped by the time we came home. **Stress phoneme**

2The rain had already **3**stopped by the time we came home **1 Pitch phonemes**

The rain had already stopped by the time we came home ↓ **Juncture phoneme**

 INTONATION: /**2**The rain had already **3** **STÓP**ped by the time we came home **1**↓/

Sentence 12

By the time I ar**RÍ**ved at the cafe, all of my friends were **WÁIT**ing for me. **Stress phonemes**

2By the time I **3**arrived at the cafe**2**, **2**all of my friends were **3**waiting for me **1 Pitch phonemes**

By the time I arrived at the cafe → all of my friends were waiting for me ↓ **Juncture phonemes**

INTONATION: /**2**By the time I **3**ar**RÍ**ved at the cafe**2**→ **2**all of my friends were **3** **WÁIT**ing for me**1**↓/

Group 3: as, until, till, now that, soon after, as long as, as soon as

Sentence 1

I saw **PÉ**ter as I was getting off the bus. **Stress phoneme**

2I saw **3**Peter as I was getting off the bus **1 Pitch phonemes**

I saw Peter as I was getting off the bus ↓ **Juncture phoneme**

INTONATION: /**2**I saw **3** **PÉ**ter as I was getting off the bus **1**↓/

Sentence 2

As time **PÁSS**ed, things seemed to get **WÓRSE**. **Stress phonemes**

2As time **3**passed**2**, **2**things seemed to get **3** worse **1 Pitch phonemes**

As time passed → things seemed to get worse ↓ **Juncture phoneme**

INTONATION: /**2**As time **3** **PÁSS**ed **2**→ **2**things seemed to get **3** **WÓRSE** **1**↓/

Sentence 3

I **THÍNK** your opinions **CHÁNGE** as you get **ÓLDER**. **Stress phonemes**

²I**³** think**²** your opinions **³**change as you get older**¹** **Pitch phonemes**

I think→ your opinions change as you get older ↓ **Juncture phonemes**

INTONATION: /**²**I **³THÍNK→²** **your** opinions **³CHÁNGE** as you get **ÓLDER¹**↓/

Sentence 4

We take care of the **KÍDS** until mom gets home. **Stress phoneme**

²We take care of the**³** kids until mom gets home**¹** **Pitch phonemes**

We take care of the kids until mom gets home ↓ **Juncture phoneme**

INTONATION: /**²**We take care of the**³** **KÍDS** until mom gets home**¹**↓/

Sentence 5

She couldn't drive away until **ÉRIC** got into the car. **Stress phoneme**

²She couldn't drive away until **³**Eric got into the car **¹** **Pitch phonemes**

She couldn't drive away until Eric got into the car ↓ **Juncture phoneme**

INTONATION: /**²**She couldn't drive away until **³** **ÉRIC** got into the car **¹**↓/

Sentence 6

Until my **FÁ**ther came home, we didn't have **DÍN**ner. **Stress phonemes**

²Until my **³**father came home**²**, **²**we didn't have **³**dinner**¹** **Pitch phonemes**

Until my father came home → we didn't have dinner ↓ **Juncture phonemes**

INTONATION: /**²**Until my **³FÁ**ther came home**²**→ **²**we didn't have **³** **DÍN**ner **¹**↓/

Sentence 7

I didn't have a **BÓY**friend till I was seventeen. **Stress phoneme**

²I didn't have a **³**boyfriend till I was seventeen**¹** **Pitch phonemes**

I didn't have a boyfriend till I was seventeen ↓ **Juncture phoneme**

INTONATION: /**²**I didn't have a **³** **BÓY**friend till I was seventeen**¹**↓/

Sentence 8

I **L_Í_VED** with my **P_Á_rents** till I was twenty. **Stress phonemes**

2I lived with my **3**parents till I was twenty **1** **Pitch phonemes**

I lived with my parents till I was twenty ↓ **Juncture phoneme**

INTONATION: /**2**I **L_Í_VED** with my **3** **P_Á_rents** till I was twenty **1**↓/

Sentence 9

Till you **C_Ó_ME** home, I will **W_Á_IT** for you. **Stress phonemes**

2Till you **3**come home**2**, **2**I will **3**wait for you **1** **Pitch phonemes**

Till you come home → I will wait for you ↓ **Juncture phonemes**

INTONATION: /**2**Till you **3** **C_Ó_ME** home**2**→ **2**I will **3**W_Á_IT for you **1**↓/

Sentence 10

Until we know each other a little **B_É_T**ter, we may not get along **F_Í_NE**. **Stress phonemes**

2Until we know each other a little **3**better**2**, **2**we may not get along **3**fine**1****Pitch phonemes**

Until we know each other a little better → we may not get along fine ↓ **Juncture phonemes**

INTONATION: /**2**Until we know each other a little **3**B_É_TTER **2**→ **2**we may not get along**3**F_Í_NE **1**↓/

Sentence 11

As long as I **TH_Í_NK** of it, I acted the same **W_Á_Y** when I was his age. **Stress phonemes**

2 As long as I **3**think of it**2**, **2**I acted the same **3**way when I was his age**1** **Pitch phonemes**

As long as I think of it → I acted the same way when I was his age ↓ **Juncture phonemes**

INTONATION: /**2**As long as I **3** **TH_Í_NK** of it**2**→**2**I acted the same **3**W_Á_Y when I was his age**1**↓/

Sentence 12

I can visit her more **ÓFTEN** as long as I have got a car. **Stress phoneme**

2I can visit her more **3**often as long as I have got a car**1 Pitch phonemes**

I can visit her more often as long as I have got a car ↓ **Juncture phoneme**

INTONATION: /**2**I can visit her more **3 ÓFTEN** as long as I have got a car**1**↓/

Sentence 13

Paula became **PRÉG**nant soon after they were married. **Stress phoneme**

2Paula became **3**pregnant soon after they were married **1 Pitch phonemes**

Paula became pregnant soon after they were married ↓ **Juncture phoneme**

INTONATION: /**2**Paula became **3 PRÉG**nant t soon after they were married **1**↓/

Sentence 14

He joined the **CÓM**pany soon after he left **COLLÉGE**. **Stress phoneme**

2He joined the **3**company soon after he left college**1 Pitch phonemes**

He joined the company soon after he left college ↓ **Juncture phoneme**

INTONATION: /**2**He joined the **3CÓM**pany soon after he left **COLLÉGE1**↓/

Sentence 15

Soon after they **MÉT**, they **MÁRR**ied. **Stress phonemes**

2Soon after they **3**met**2**, **2**they **3**married**1 Pitch phonemes**

Soon after they met → they married ↓ **Juncture phonemes**

INTONATION: /**2**Soon after they **3 MÉT 2** →**2**they **3 MÁRR**ied **1**↓/

Sentence 16

As soon as she **WÁLK**ed in, we **LÉFT** the party. **Stress phonemes**

2As soon as she **3**walked in**2**, **2**we **3**left the party**1 Pitch phonemes**

As soon as she walked in→ we left the party ↓ **Juncture phonemes**

INTONATION: /**2**As soon as she **3WÁLK**ed in**2**→ **2**we **3 LÉFT** the party**1**↓/

Sentence 17

I will come over to your **PLÁCE** as soon as I can. **Stress phoneme**

2I will come over to your **3**place as soon as I can**1 Pitch phonemes**

I will come over to your place as soon as I can ↓ **Juncture phoneme**

INTONATION: /**2**I will come over to your **3PLÁCE** as soon as I can**1**↓/

Sentence 18

I can **PÁY** you back as soon as I have the money. **Stress phoneme**

2I can **3**pay you back as soon as I have the money**1 Pitch phonemes**

I can pay you back as soon as I have the money ↓ **Juncture phoneme**

INTONATION: /**2**I can **3PÁY** you back as soon as I have the money**1**↓/

Sentence 19

You can go out to **PLÁY** as long as you stay in the backyard. **Stress phoneme**

2You can go out to**3** play as long as you stay in the backyard**1 Pitch phonemes**

You can go out to play as long as you stay in the backyard ↓ **Juncture phoneme**

Intonation: /**2**You can go out to**3** **PLÁY** as long as you stay in the backyard**1**↓/

Sentence 20

As long as we **KÉEP** playing well, we'll keep winning **GÁME**S. **Stress phonemes**

2As long as we **3**keep playing well**2**, **2**we'll keep winning **3**games**1 Pitch phonemes**

As long as we keep playing well→ we'll keep winning games ↓ **Juncture phonemes**

Intonation: /**2**As long as we **3KÉEP** playing well**2**→ **2**we'll keep winning **3** **GÁME**S**1**↓/

Sentence 21

You can **STÁY** for as long as you want. **Stress phoneme**

2You can **3**stay for as long as you want**1 Pitch phonemes**

You can stay for as long as you want ↓ **Juncture phoneme**

Intonation: /**2**You can **3STÁY** for as long as you want**1**↓/

2.4. Conclusion

In this chapter, important research studies conducted in intonation and pronunciation teaching in English language teaching environment were presented. Some insights gained from these past studies and how they affected the language teaching area was discussed. In addition, information about English intonation teaching both in Turkey and in the world, especially in EFL environments was presented to shed light on the issue of how the situation in Turkey is different from other parts of the world considering the place of intonation teaching firstly in English language teaching departments in the universities in Turkey and in foreign language teaching classrooms. The chapter finished with providing the detailed analysis of the corpus of English adverbial clauses used in the study as the main data collection instrument.

3. METHODOLOGY

3.1. Introduction

In this chapter, firstly, the overall research design will be presented in detail. Then, the information about the participants, their characteristics and the sampling technique through which they were chosen will be provided. Moreover; the features of the data collection instrument will be explained. Since it is a corpus of time adverbial clauses in English, how this corpus was comprised will be specified with providing information about the reliability and validity analysis of the instrument. Scientific data collection method that was used in the study will be explained. In addition, the data collection procedures will be clarified and the subsequent steps of the data analysis procedure will be provided in detail. Therefore, the aim of this chapter is to give information about the research design of the study, data collection and analysis procedures.

3.2. The Research Design

In this study, pre-test post-test experimental research design, which is a quantitative approach, was used to find out the answers of the research questions. So, the research data was collected quantitatively. In the previously mentioned experimental design, participants are given a pre-test on recording their voices which paved the way to remove speaking anxiety with the purpose of measuring their present abilities about the issue questioned in the study. To record their voices, the participants found a sound proof room on their own. Since they were not listened or watched by onlookers, the result is an anxiety free product.

The participants were given a treatment and after this treatment, they were given a post-test with the purpose of evaluating the effectiveness of the treatment on the participants. In these treatment sessions, the participants were provided with the activities on the topic of this thesis in the form of oral productions comprising substitution drills, shadow reading and shadow listening, filling in the blank exercises etc. To see if the treatment was effective or not, the results of the pre-test and the post-test were compared and analyzed via appropriate data analysis techniques. A quantitative experimental research design was chosen for this study because the nature of the research questions requires this kind of a research design to make it possible to find out valuable answers to these questions.

For the present study, this research design was used to measure the existing knowledge of prospective EFL teachers about English sentence intonation via pre-test voice recording. In that pre-test, the participants were asked to record their voices as they were reading aloud English adverbial clauses. These time adverbial sentences were given to the students as a corpus. Following the pre-test, they participated to the treatment sessions in three different classes to cure their intonation problems and to make them learn the correct intonation patterns of time adverbials in English. In the treatment sessions, prospective English teachers were trained according to Audio Articulation Model (Demirezen, 2003, 2004) and Grammar Intonation Model (Cauldwell & Hewings, 1996; Demirezen, 2014; Hişmanoğlu, 2006; Hişmanoğlu, 2012). With the help of several PowerPoint presentations, prospective English teachers were exposed to various English primary stress, juncture and pitch exercises both in the recognition and production levels. In addition, these PowerPoint presentations were handed over to the students for home study purposes.

The procedure in the treatment sessions can be described as follows: With the help of PowerPoint presentations which include intonation exercises from the voices of native speakers of English, students firstly did the recognition exercises. They were made to listen to time adverbial sentences and asked to recognize which words should get the primary stress, what are the juncture and pitch usages of the sentences. After doing several recognition exercises, the students passed to do production exercises. They were asked to produce sentences themselves with using correct intonation patterns. The instructor gave feedback to them and correct their stress, pitch and juncture usage mistakes. There were various types of exercises like fill in the blanks, cloze test or multiple choice.

Two weeks after these treatment sessions in three first year classes of a foreign language teaching department, the participants were given a post-test voice recording once more. The reason of waiting for two weeks before evaluating the participants' usage of English intonation was to eliminate possible interfering factors like remembering that could result from not learning but just being exposed to the English intonation knowledge soon.

3.3. The Participants

The participants were prospective EFL teachers studying at a major state university in Ankara, Turkey. The participants were the first year students of an English language teaching program which provides a bachelor degree. A total of 84 prospective EFL teachers participated in the study in both pre-test and post-test measures on a voluntary basis. Since they were in the foreign language teaching department in a university, they form a homogeneous group. 75 of the participants were female and 9 of them were male. In terms of percentages, approximately 10 percent of the participants were male and the remaining 90 percent were female. The age range of the participants was between 18 and 20.

In the year of 2015 spring term, the participants were taking "Listening and Articulation II" course while the researcher was collecting the data. They had taken "Listening and Articulation I" in 2014. Thus, the background of the participants concerning their English sentence intonation knowledge was considered as equal. The proficiency level of their English was also expected to be quite similar because they were first year students who entered the university by passing the same language proficiency exam implemented by Turkish Assessment Selection and Placement Center.

Convenient sampling technique was used to determine the participants of the study due to the ease of access to the participants and availability. One important advantage of this sampling technique can be that the data is gathered more quickly and the researcher can have more opportunities to be with the participants. It can be regarded as a suitable sampling design for this study because of the fact that the researcher needed to come together with the participants of the study more than once to conduct intervention and treatment sessions with them. For this reason, ease of access to the participants was a crucial concern for the present study. On the other hand; one disadvantage of this sampling technique could be the risk that the chosen participant sample may not represent the target group as a whole. This is not a very significant problem for this study because the target of the study was actually EFL prospective teachers and this sampling made it possible for the researcher to reach the target participants.

3.4. Data Collection Instrument

As the data collection instrument of this study, mainly a corpus consisting of complex time clauses in English was used. A total of 48 time adverbial clauses taken from dictionaries and books was used as a corpus of data collection instrument (Kelly, 2012; Swan & Walter, 2011; Wells, 2014). To measure the internal consistency of the items in the data collection corpus, a statistical technique named as the Kuder and Richardson Formula 20 test (KR 20) was used with the help of the Statistical Package for the Social Sciences (SPSS) version 21.0. This inter-item reliability measurement is used when each item in a test is used dichotomously (Gliner, Morgan, & Reech, 2009). It means that the score of the item is right/wrong, correct/incorrect etc. There is no likert scale measurement. Therefore, the Kuder and Richardson Formula 20 test (KR 20) was used in this study.

Similarly, in this data collection instrument, there were actually two possible measurements as correct and incorrect for each time adverbial sentence. So, the results were analyzed in terms of 1 and 0 referring to being correct or incorrect. For this reason, it was considered as a suitable technique to measure the reliability of the instrument. Due to this dichotomous scoring, the internal consistency coefficient KR 20 analysis was used. In this analysis, the score above 0.80 is considered as high reliability, the score between 0.50 and 0.80 is moderate reliability and below 0.50 is low reliability (Tan, 2009).

Since the data collection instrument normally consisting of 48 items in total was divided into three sub-groups, the KR 20 analysis was conducted for each sub-group. The inter-item reliability score of the data collection instrument was found above 0.90 for all three groups (0.97 for the first group, 0.94 for the second group and 0.96 for the last group of time adverbials), which means a high consistency among the items of the data collection instrument. So it was certain that three groups of data collection instrument measure the same constructs.

The participants read out the sentences in the data collection corpus in the pre-test and post-test applications. This total corpus of sentences was divided into three subsections to be implemented to the participants more easily. The group 1 consists of 15 time adverbial sentences with "before, after, when, while, since";

group 2 comprises 12 sentences with time adverbs "once, every time, whenever, by the time"; and there are 21 time adverbial sentences in the last group with "as, until, till, soon after, as long as, as soon as." These three subsections of the corpus were implemented to three different classes of first year students at an EFL department. Each class of participants worked with the same group of sentences in both pre-test and post-test implementations. This categorization was done with the purposes of covering a high number of different time adverbs and making it possible for the participants to complete the different steps of the study more easily. Otherwise, it could have been problematic for each single participant to read out all the sentences in the corpus for both pre and post-test measures.

In addition, for the categorization process of the time adverbial sentences, the expert opinions of three different university professors were taken. All of them are field experts currently working in an ELT department at a major state university in Turkey and one of them is a professor of phonetics and phonology and also the supervisor of the present thesis study. Therefore, the validity of the research instrument is completed.

In addition to main corpus as a data collection instrument, there are also four PowerPoint presentations that were used in the treatment sessions for the purpose of teaching the correct stress, pitch and juncture usages of English time adverbial clauses to the prospective EFL teachers. The intonation teaching exercises in these PowerPoint presentations were prepared with the sentences taken from the books and dictionaries (Longman Dictionary of American English, 2004; Swan & Walter, 2011; Wells, 2014). These sentences used in the exercises were the native speaker speech segments. These PowerPoint presentations were also a part of data collection process, as well.

3.5. Data Collection Procedures

As the first step of the data collection procedure in this study, participants were asked to record their voices in a sound proof place while reading aloud English time clauses, which were provided to them in advance. The voice recording process was done by the participants in their own free time in a relaxed silent atmosphere. Making participants record their voices on their own was done on purpose not to create any anxiety on the participants while articulating the

sentences to be analyzed and to eliminate such factors as noise in the environment. They handed over the voice recordings to the researcher via e-mail after they did the recording on their own.

Following this pre-test, students participated in the treatment sessions in three different classes. They were informed about the correct intonation usages of time clauses in English. In the treatment sessions, students were provided with different kinds of activities and exercises concerning stress, juncture and pitch patterns of time adverbial clauses in English. These exercises were provided to the students via four PowerPoint presentations. There were also dozens of practiced sentences on the board in the class during class hours. Also, after the teaching sessions, PowerPoint presentations were given to the students for home study purposes.

After these treatment sessions, the researcher waited for two weeks for the post-test. Then, the same participants who took the pre-test and involved in the treatment sessions were asked to record their voice again while reading out the time adverbial clauses in English. Once more, the participants sent the recordings to the researcher via e-mail and the process was the same with the pre-test. Again, they did voice recording in their free time alone. After each of the two data collection sessions, all the research data was gathered to be analyzed by appropriate techniques.

3.6. Data Analysis

For the initial data analysis procedure, following the pre-test voice recording, the correctness of the participants' sentence intonation usage in English from three aspects, which are primary stress usage, pitch and juncture usage, was analyzed by 3 different raters. The same rating process was repeated after the post-test, as well. So, the collected data were analyzed by three raters with the purpose of determining the success of the participants on producing correct English sentence intonation. After this human data evaluation part, the data were analyzed via the statistical analysis program named as Statistical Package for the Social Sciences (SPSS) version 21.

To check the inter-rater reliability measures of different raters, intra-class correlation coefficient was computed via SPSS. The intra-class correlation coefficient value varies from 0. to 1. If the value found is close to 1, it means that

there is little variation among different raters' scores. This analysis was conducted for both pretest and posttest human scoring procedures of each rater separately. The analysis gave the Cronbach's (alpha) results of the three different ratings.

Cronbach's (alpha) is defined as a statistical technique of the expected correlation of two measurements of the same construct. In this specific case, the construct is the results of the participants as indicated for each adverbial clause that they articulated by zero referring to wrong answers and one referring to correct answers. These results of the raters consisting of zeros and ones were compared for both pre and post-tests to see the correlation of different raters.

At the end of this analysis for the pretest results, the inter-rater reliability scores were found as follows: 0.86 for the group 1, 0.84 for the group 2 and 0.72 for the group 3. All the scores are accepted as reliable because the results above 0.70 are considered as having average or high reliability. This inter rater reliability analysis was conducted for the post test results, as well. The reliability score for the group 1 was 0.72, it was 0.77 for the group 2 and for the group 3, it was a little bit lower but still acceptable as being 0.64. So, at the end of all these inter rater reliability results, it can be stated that the scoring of the different raters was similar. It means that there was no inconsistency among the raters. It also means that the results reached to find the answers of the research questions can be accepted as reliable.

Following these reliability tests, the actual data gathered by the participants and scored by the raters were analyzed with using Paired Samples T-test run by SPSS. This specific data analysis method was chosen since Paired Samples T-test is a statistical data analysis method used in before-after or pretest-posttest designs and when there is an intervention or training to see its effects on the participants, which is an exact match for the present study.

In this study, the pretest voice recording results of the participants before the training sessions and posttest voice recording results were compared to observe if there were any positive effects of the training sessions on the success of the participants concerning the stress, pitch and juncture usages in time adverbial sentences. For three different classes of participants, different Paired Samples T-test measures were calculated by SPSS. The information related to descriptive

statistics was also collected concerning the rates of male and female participants, their age range. Also, the results were analyzed with the help of Microsoft Excel program to calculate the average correct and wrong rates of participants with percentages and to determine accurately which sentence was articulated the most correctly and vice versa.

All in all, it is expected that with the help of a well prepared research methodology, the main aims of this research can be reached and the answers of the research questions can be found. If this methodology is found to be valuable, it can also be a good example for the future English intonation related studies. This is also more important if the unexpected nature of intonation research is taken into consideration.

3.7. Conclusion

The following information was presented in this section: The detailed descriptions of the research design including the information about the data collection instrument, how the data was collected and then evaluated and how the results were attained. Additionally, the description of the participants and how they contributed to the data collection and analysis processes were explained in detail. The aim of this chapter was to show that the data was collected and evaluated in accordance with a predetermined research design which has set of rules that should be followed in each step of this experimental study. In the following chapter, the analysis of the results and the discussion of this analysis will be provided by giving specific reference to each research question one by one.

4. RESULTS

4.1. Introduction

In this chapter of the study, the results of all the data collection and analysis procedures were presented. Since there are three groups of time adverbials about which all the data analysis procedures were completed in the study, the results were given in accordance with the research questions and these three groups of time adverbials subsequently. The results were calculated concerning three major aspects of English intonation which are juncture, pitch and primary sentence stress usages.

In this chapter, the aim was to present the results of the study which was gathered with the help of statistical analysis. The success and failure percentages of the participants concerning the three components of English intonation which were investigated throughout the study were provided to show how successful the participants were in learning these three components of English intonation. The results were provided for three groups of time adverbials separately with providing the information about the success and failure percentages of the participants in each group. To make the results more clear, the graphs and charts as visual help for the readers were also provided.

4.2. Results for the Research Question 1

Research question 1: Is there any significant difference between pre-test and post-test scores of prospective EFL teachers on using the primary stress on one of the content words in time adverbials in English?

In this part, the results of the participants concerning the primary stress placement in three groups of time adverbials used in the study are provided separately. It should be noted here that the data statements used for the results part were provided to the participants in audio form from the voice of the native speakers.

4.2.1. Results of First Group Of Time Adverbials Including "Before, After, When, While, Since"

In this group of the data collection corpus, there were 15 sentences comprising time adverbials with "before, after, when, while, since." A total of 30 participants read out these sentences in both pre-test and post-test applications. When the

pre-test averages of the participants were taken into consideration about the correctness of putting the primary stress on one of the content words in both dependent and independent clauses in a time adverbial, the success rate among 30 participants was found to be 35%, which is a relatively low percentage. The remaining 65% was the failure rate of the participants. From these averages of the participants, it can be stated that before the application of the remedial intonation teaching lessons, the participants had problems of sentence stress placement in their English intonation.

After the remedial teaching lessons conducted with these participants who took the pretest, the researcher waited for two weeks to implement the posttest. When the posttest correct averages of the participants were calculated, it could be observed that there was a considerable increase in the correct placement of stress on one of the content words on time adverbials. The averages of the participants in posttest are as follows: correct rate 82%; wrong rate 18%.

Table 4.1: The Correct and Wrong Percentages of Group 1 in Stress Placement

Pretest correct rate 35%	Posttest correct rate 82%
Pretest wrong rate 65%	Posttest wrong rate 18%

Paired samples T-test results, which show if there is any significant deference between the pretest and posttest measurements and if the intervention or remedial teaching sessions have any effect on student success, indicated a significant difference ($p<0.05$) on the primary stress placement of the participants between the pretest and posttest. Therefore, it can be stated that the remedial teaching sessions were found to be successful on increasing the prospective EFL teachers' success of primary stress placement on complex time adverbials.

When the items were analyzed in terms of participant success in the pretest measurement, the problematic items were found to be the items number 10, 12 and 15, which only 30% of the participants put the stress on the content words correctly.

Item number 10: "While she was asleep, thieves broke in and stole her bag."

Item number 12: "What did you do while you were there? "

Item number 15: "Since we moved here, it has been one problem after another. "

As it can be seen above, 12th item is a question which might confuse the participants about the stress placement. In item number 10, there is an "and" conjunction in a complex time adverbial, it could make for the participants harder to put the primary stress on the content words. In the posttest, again the students made the most wrong stress placement in the item number 12 which is a question but the participants increased their success to 66%.

On the other hand, participants did the most correct sentence stress placement in the pretest measurement with the correct rate of 53 % on the items 11, 3, 13. In these items, independent clause precedes the dependent time clause. They are also statements not questions or there is no additional conjunction in these items. These items were stated below:

Items number 11: "They arrived while we were having dinner."

Items number 3: "You have to pass a test before you can get a license."

Items number 13: "I haven't played rugby since I left university."

As a general comment on these results of the participants, the place of the independent and dependent clauses were seemed to be influential on the participants' correct placement of the stress on content words. As it can be seen from the above items, the participants' success increased on the time adverbials in which independent clause precedes the main time clause.

4.2.2. Results of 2nd Group Of Time Adverbials Including "Once, Every Time, Whenever, By the Time"

In this group of time adverbials, the participants read out 12 sentences in both pre and posttest measurements. There were 30 participants who attended to the pretest and posttest measurements in that 2nd group. Upon the results of paired samples T-test, a significant difference ($p < 0.05$) was found between pretest and posttest scores of the participants. So, they were found to develop considering the primary stress placement on content words in time adverbials.

The pretest correct stress placement rate of the participants was 35% and wrong rate was the remaining 65% which is the same with the first group of time adverbials stated above. Posttest correct and wrong stress placement scores were 85% and 15% subsequently. From these percentages, the increase in the

participants' success of correct stress placement rates can be observed from 35% to 85%.

Table 4.2: The Correct and Wrong Percentages of Group 2 in Stress Placement

Pretest correct average: 35%	pretest wrong average: 65%
Post-test correct average: 85%	posttest wrong average: 15%

In the pretest, the most problematic adverbial clauses for the participants were items number 6 and 12. Only 20% of the participants put the stress on the content words correctly in these time clauses. These sentences are the longest sentences in the second group of the corpus.

Item number 6:" Every time we get together with old friends, we spend great time together. "

Item number 12: "By the time I arrived at the café, all of my friends were waiting for me."

The most correct stress placement was on item number 1, which is one of the shortest sentences among the 12 items. 50% of the participants were correct in this sentence stress placement.

Item number 1: "Once I get him a job, he will be fine."

Generally the shorter sentences were found to be more correctly stressed than the longer sentences. For this reason, the length of the sentence can be important for students to put the primary stress on the correct part of the complex sentences in English. Again in the posttest results, the situation is similar about the correctness of the sentence stress placement with having some problems in the longer sentences like item number 12 but the average correct rate increased once more from 20% to 65% in the posttest.

4.2.3. Results Of 3nd Group Of Time Adverbials Including "As, Until, Till, Soon After, As Long As, As Soon As"

In this group of time adverbials, the participants read out 21 sentences in both pre and posttest applications. There were 24 participants who took the pretest and posttest in the third group. As in the first and the second group of time adverbials, also in this group, the participants were found to be developed with the help of

remedial teaching sessions about the primary stress placement in English time adverbials.

The average correct stress placement rate of the participants in pre and posttests were as follows: 36% and 84% subsequently. The wrong stress placement averages were as follows in pretest and posttest: 64% and 16%. It can be grasped from these average values that the participants increased their knowledge of sentence stress placement in the posttest.

Table 4.3: The Correct and Wrong Percentages of Group 3 in Stress Placement

Pretest correct rate 36%	Posttest correct rate 84%
Pretest wrong rate 64%	Posttest wrong rate 16%

Table 4.4: Paired Samples T-test Results for Group 1 and Descriptive Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre_junc_g1_p1	5.500	30	2.3889	.4362
	post_junc_g1_p1	12.767	30	1.3047	.2382
Pair 2	pre_pitch_g1_p1	4.467	30	2.0800	.3798
	post_pitch_g1_p1	12.400	30	1.5222	.2779
Pair 3	pre_str_g1_p1	5.367	30	2.0759	.3790
	post_str_g1_p1	12.467	30	1.2521	.2286

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	pre_junc_g1_p1 - post_junc_g1_p1	-7.2667	3.0050	.5486	-8.3887	-6.1446	-13.245	29	.000
Pair 2	pre_pitch_g1_p1 - post_pitch_g1_p1	-7.9333	2.5989	.4745	-8.9038	-6.9629	-16.720	29	.000
Pair 3	pre_str_g1_p1 - post_str_g1_p1	-7.1000	2.4262	.4430	-8.0059	-6.1941	-16.029	29	.000

As it can be seen in Table 4.4. above, the paired samples T-test results showed a significant difference (p<0.05) between the pretest and posttest results of prospective EFL teachers. So, they were found to learn and apply correct primary stress placement rules of English in time adverbials.

4.3. Results for the Research Questions 2 And 3:

Research question 2: Do prospective EFL teachers pause when a dependent clause precedes a main clause in English adverbial clauses of time?

Research question 3: When a main time clause precedes a dependent clause, which intonation pattern do prospective EFL teachers use?

In this part, the results of the participants concerning the juncture usages in three groups of time adverbials were provided separately with giving specific reference to two different sentence types as follows: When the main time clause precedes the dependent clause and when the dependent clause comes before the main clause.

In all the groups of time adverbials, the results showed that the participants generally made pauses according to punctuation. When they saw a comma between the dependent and main clause, they generally paused maybe because of the mother language effect since in Turkish; speakers make pauses when they see a comma in connected speech between clauses, as well. For this reason, in the cases where dependent time adverbial clause precedes the main clause and is separated with a comma, speakers use juncture correctly and make pauses. On the other hand; in time clauses in which main clause comes before the dependent clause, speakers can make sustained juncture which indicates a very short pause.

The results showed that before the training sessions, the participants use juncture phoneme in English incorrectly by making unnecessary long pauses in wrong places in the complex sentences. For instance, in the sentences where they normally should have used sustained juncture phoneme, the participants were found to make long pauses as if there was a comma in the sentence. Or in some cases, when they should have done normal pauses like when there is a comma separating the main and the subordinate clause in a complex time adverbial in English, the participants did not make pauses.

4.3.1. Results of First Group Of Time Adverbials Including "Before, After, When, While, Since"

For the first group of sentences, the correct juncture usage rates in the pretest and the posttest were 37% and 85% consecutively. So, it can be stated that in the pretest measurement, the success rate of the students was 37% and failure to use the juncture phoneme was 63%. In the posttest, the success rate increased to 85% and the failure rate of the students decreased to 15%. The increase of the participants' correct usage of juncture in time adverbial clauses can be seen from the average rates below.

Table 4.5: The Correct and Wrong Percentages of Group 1 in Juncture Usage

Pretest correct rate 37%	Posttest correct rate 85%
Pretest wrong rate 63%	Posttest wrong rate 15%

In addition, the paired samples T-test results also indicated a significant difference between the success levels of participants about the juncture usages in different types of time adverbials ($p<0.05$). Therefore, for the pause usage in English complex sentences, it was found out that the prospective EFL teachers gain insights from the treatment sessions concerning the correct usages of juncture phoneme in English. The awareness rising about the correct placement of pause in connected speech was influential for the participants.

When the items were analyzed in terms of participants' success rate in the pretest, the items that the participants make the most wrong usages of the juncture phoneme were number 4 and 12, which are both questions. 16% of the participants were found to use pause correctly in item number 4 and 20% used juncture correctly in item number 12, which are both below the average success rate of the participants in this group.

Item number 4: "After you had called the police, what did you do?"

Item number 12: "What did you do while you were there?"

While the voice recordings of the participants were being analyzed, it was noticed that most of the participants did not make pause in the item 4 even if they saw the comma in the sentence. Maybe because it is a question, speakers did not feel the need to pause between the dependent and independent clauses. The sounding of the participants' was unnatural in the voice recordings.

The other problem related to those two questions was related to using the rising juncture at the end of them. Speakers are expected to use rising juncture at the end of the questions in English to indicate that they are waiting for an answer from the other speaker and that their speech does not finish. When the speakers do not use rising juncture at the end of the question, it sounds unnatural as if it was not a question but a statement.

On the other hand; while articulating a statement, a speaker uses falling juncture at the end of the utterance to signal to the other speaker that s/he finishes his/her speech and that it is the end of the speech. That was one of the most important problems noticed by the researcher in the pretest measurement. For this reason, a special attention was given to teach the correct falling, rising and sustained juncture usages in connected speech during the remedial teaching hours conducted with the participants. So, in the posttest results, it was seen that the average rate of success in the item number 4 increased to 80% and in item number 12 to 73%, which can be considered as considerable success when the pretest results of the participants were taken into consideration.

The other group of problematic items in terms of juncture usage was found to be item numbers 9 and 15 with the average success rate of 26% and 23% consecutively according to pretest results.

Item number 9: "When you get to the office, you will see a tall man named Sean."

Item number 15: "Since we moved here, it has been one problem after another."

As it can be observed from the problematic items above, both of them are complex adverbials in which dependent time adverbial precedes the independent clause and separated with a comma. In the pretest voice recording evaluation, it was noticed that the participants did not care about the comma between two clauses and articulated them as if there was just one simple sentence not a complex sentence in the utterance. For the item number 9, it can also be indicated that the relative clause reduction in this time adverbial sentence caused some of the participants to make unnecessary long pauses in the relative clause reduction part of the sentence.

Item numbers 2, 6, 11, 5, 13 and 3 were found to be the least problematic items in the pretest and posttest results. The correct percentages for these items were as

follows: 50% for the items number 2 and 6; 46% for the item number 11and these were according to the pretest measurements. Posttest results indicated the following correct juncture usages rates: 93% for the items number 5 and 13; 90% for the 3rd item. The common issue in these sentences is the fact that in each of them, the independent clause precedes the dependent clause and there is no comma separating the sentences. So, the speakers generally used the juncture phoneme correctly in this case.

4.3.2. Results of 2nd Group Of Time Adverbials Including "Once, Every Time, Whenever, By The Time"

The average success level of the 30 participants in this group in the pretest results was found to be 32% and increased to 80% in the posttest results. This is a really good advancement of the participants considering the correct usage of juncture phoneme in English intonation.

Table 4.6: The Correct and Wrong Percentages of Group 2 in Juncture Usage

Pretest correct rate 32%	Posttest correct rate 80%
Pretest wrong rate 68%	Posttest wrong rate 20 %

For the second group of time adverbials, according to paired samples t-test results, there was a significant difference indicated by p value ($p < 0.05$) as it can be seen from Table 4.7. below. Therefore, the effect of remedial intonation teaching lessons on the prospective EFL teachers was positive creating a development in their usage of juncture rules in English intonation.

Table 4.7: Paired Samples T-test Results for Group 2 and Descriptive Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre_str_g2_p1	4.233	30	2.0625	.3766
	post_str_g2_p1	10.200	30	1.0954	.2000
Pair 2	pre_junc_g2_p1	3.933	30	1.9106	.3488
	post_junc_g2_p1	9.633	30	1.3767	.2514
Pair 3	pre_pitch_g2_p1	3.667	30	1.9357	.3534
	post_pitch_g2_p1	9.53	30	1.279	.234

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	pre_str_g2_p1 - post_str_g2_p1	-5.9667	2.2203	.4054	-6.7958	-5.1376	-14.719	29	.000
Pair 2	pre_junc_g2_p1 - post_junc_g2_p1	-5.7000	2.1995	.4016	-6.5213	-4.8787	-14.194	29	.000
Pair 3	pre_pitch_g2_p1 - post_pitch_g2_p1	-5.8667	1.8889	.3449	-6.5720	-5.1614	-17.012	29	.000

Upon the item analysis, the item number 10 was found to be the most problematic item according to pretest results. The average success of the 30 participants of this item was only 13%, which was a really low level of success. Almost all the participants were wrong about the pause usage in that time adverbial.

Item number 10: "The phone was ringing but by the time she got indoors, it had stopped."

As it can be noticed, there is an additional conjunction "but" in the sentence and also a comma to indicate the place of sustained juncture but the participants might be confused because of the presence of an additional conjunction in the sentence. In addition, the sentence was a little bit longer than the other sentences in this group. The length of the sentence may also confuse the speakers to use the juncture phoneme in the correct place while articulating the sentence.

Items 4, 5 and 7 in this group had the highest correct usage by the participants in the pretest results with the correct average values of 46%, 53% and 46% successively.

Item number 4: "The roof leaks every time it rains."

Item number 5: "I feel very excited every time I see him."

Item number 7: "Larry always blames me whenever anything goes wrong."

These items are among the shortest items in the group and in all the three items, the main clause precedes the dependent clause. This type of complex sentences was found to be less problematic than the other type in which subordinate clause comes before the main clause and is separated with a comma for the participants in terms of juncture usage even before the remedial teaching lessons.

Posttest results indicate an important increase in the correctness of the participants in terms of juncture usage. The increase of success was higher among the items that were less problematic for the participants in the pretest measurement. Considering in the problematic items, for example item number 10, the increase is lower than the other items but it is still significant with the 63% of correct rate in the posttest.

4.3.3. Results of 3nd Group Of Time Adverbials Including "As, Until, Till, Soon After, As Long As, As Soon As"

In the third group, there were 21 sentences and 24 participants took the pretest and posttest measurements. The analysis was done on this basis. The average success rate according to pretest results was 29% and in the posttest results, the success rate of the participants was found to increase to 86%. It can be seen in the Table 4.8. below.

Table 4.8: The Correct and Wrong Percentages of Group 3 in Juncture Usage

Pretest correct rate 29%	Posttest correct rate 86%
Pretest wrong rate 71%	Posttest wrong rate 14 %

Additionally, the significant difference was found in the paired samples T-test results ($p<0.05$). In this group of sentences, participants did not show much difference in success according to items. Maybe because in this group there was no question, which was the item type mostly problematic in the first two groups.

4.4. Results for the Research Question 4

Research question 4: Is there any significant difference between pre-test and post-test scores of prospective EFL teachers on using the correct pitch patterns while reading out the time adverbial clauses?

In this part, participants' pre and posttest results concerning the pitch usages of them in the time adverbial clauses. In general, it can be stated that according to pretest results of the participants, using correct pith patterns was found to be one of the most problematic aspects of their English intonation.

4.4.1. Results of First Group Of Time Adverbials Including "Before, After, When, While, Since"

The average rate of correct pitch pattern usage of the participants in the pretest results was 29%, which is a low level of success compared to the other two aspects of English intonation investigated in this study. So, the failure rate of the participants was 71%. It can be stated that before the treatment sessions, the participants had serious problems of pitch usages while articulating the time adverbials.

Table 4.9: The Correct and Wrong Percentages of Group 1 in Pitch Usage

Pretest correct rate 29%	Posttest correct rate 82%
Pretest wrong rate 71%	Posttest wrong rate 18 %

According to the posttest results collected after the treatment sessions, it was seen that these sessions were beneficial for this aspect of English intonation, as well with the correct pitch usage rate of 82% among 30 participants in this group. The paired samples T-test results declared a significant difference (p<0.05) between the pretest and posttest results of the participants. In the posttest results, the average success level of the participants increased to 82%, which indicated a good development of the participants in terms of learning correct pitch patterns in English.

When the item wrong and correct rate averages were checked, it was seen that the most problematic items were items 4 and 12 with the correct rate of 13% and 16% successively. As it can be grasped from these low success rates of the participants according to pretest results, they had problems of pitch usages especially in the question form of time adverbial clauses. The problematic items in terms of the pitch usage of the participants were stated below.

Items 4: "After you had called the police, what did you do?"

Items 12: "What did you do while you were there?"

About these statements above, the participants had also problems of juncture phoneme usage as stated earlier while analyzing the juncture usage results, as well. Therefore, it can be concluded that in terms of pitch and juncture components of English intonation of time adverbials, question types were found to be more problematic than the statements. That can be an important insight about what to

teach to the students and which part of English intonation should take more of the attention of the teachers.

4.4.2. Results Of 2nd Group Of Time Adverbials Including "Once, Every Time, Whenever, By the Time"

The second group of participants was also found to be developed in using the correct pitch patterns while articulating the complex time adverbials when pretest and posttest results were analyzed via paired samples T-test (p<0.05). The participants' pretest success level in terms of pitch usage was 30% and their success was found to increase to 79% according to the posttest results. Again the participants gained insights as a result of the intervention intonation teaching lessons.

Table 4.10: The Correct and Wrong Percentages of Group 2 in Pitch Usage

Pretest correct rate 30 %	Posttest correct rate 79 %
Pretest wrong rate 70%	Posttest wrong rate 21 %

When items were analyzed in terms of the participants' correct rates in that 2nd group, it was found out that the item number 10 was the most problematic items about which only 10% of the participants were successful about using the correct pitch pattern.

Item number 10: "The phone was ringing but by the time she got indoors, it had stopped."

This item was also found to be problematic in terms of juncture usages of the participants. So, it can be stated that some characteristics of complex sentences affect the success of the learners about using correct English intonation. For both pitch and juncture components of English intonation, the length of the sentence and the additional elements in the sentences may affect the success level of the learners. On the other hand; the participants were found to solve their intonation problems to a great extent like in this group, the correct rate of this item 10 increased from 10% to 66% in the posttest results. Even about the most problematic item, the participants improved themselves. So this is promising considering the issue that the learners could gain benefits from the purposeful intonation teaching activities in the ELT classrooms and that intonation teaching

should not be neglected just because of the perceived complexity of the teaching process.

4.4.3. Results Of 3nd Group Of Time Adverbials Including "As, Until, Till, Soon After, As Long As, As Soon As"

The results were similar for the third group of the items but the percentages of correct rates were a little bit lower in this group compared to the other two groups. The correct rate of the 24 participants in this third group was 25% in the pretest results. It increased to 83% in the posttest results. In the same direction, the paired samples T-test results also showed a significant difference between the participants' pre and posttest results ($p<0.05$).

Table 4.11: The Correct and Wrong Percentages of Group 3 in Pitch Usage

Pretest correct rate 25%	Posttest correct rate 83%
Pretest wrong rate 75%	Posttest wrong rate 17 %

Item analysis of the group showed that one of the most problematic items in terms of participants' failure rate in the pretest was item number 11. Only 8% of the participants in that group were correct in their pitch usage in this item which is a very low level of success.

Item number 11: "As long as I think of it, I acted the same way when I was his age."

Similar to the other items in other groups success rates of which were low, this item also has some additional elements like an additional time adverbial "when." These kinds of items were found to be the most problematic items for the learners' intonation usage in the pretest. When posttest results were analyzed for this specific item, 70% of the participants were found to be correct. Once more, it was found out that the learners can develop their pitch usages even in the most difficult items for them if they are given with the necessary level of attention about their pitch usage errors. Below in Table 4.12, paired samples T-test results can be seen for the group 3 including all the components.

Table 4.12: Paired Samples T-test Results for Pitch Usage of the Participants and Descriptive Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre_str_g3_p1	7.500	24	3.0503	.6226
	post_str_g3_p1	17.67	24	1.465	.299
Pair 2	pre_junc_g3_p1	6.292	24	2.5105	.5125
	post_junc_g3_p1	18.25	24	1.189	.243
Pair 3	pre_pitch_g3_p1	5.417	24	2.3015	.4698
	post_pitch_g3_p1	17.58	24	2.020	.412

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	pre_str_g3_p1 - post_str_g3_p1	-10.1667	3.6555	.7462	-11.7102	-8.6231	-13.625	23	.000
Pair 2	pre_junc_g3_p1 - post_junc_g3_p1	-11.9583	2.8511	.5820	-13.1622	-10.7544	-20.548	23	.000
Pair 3	pre_pitch_g3_p1 - post_pitch_g3_p1	-12.1667	2.8387	.5794	-13.3653	-10.9680	-20.997	23	.000

4.5. Results Related to the Results of Research Question 5

Research question 5: Is there any significant difference between overall pre-test and post-test scores of the prospective EFL teachers about using the correct intonation patterns of English adverbial clauses of time?

It can be stated for all the three groups of time adverbials, teaching the intonation patterns of these complex sentences to the prospective EFL teachers can be successful. It means that the prospective English teachers can benefit from English intonation teaching classes during their undergraduate university education. As shown in the results of paired samples T-tests calculated to determine the expected success difference between the pretest and posttest scores of the participants concerning the three different subsections of English intonation which are pitch patterns, juncture usages and primary sentence stress placement, the overall success of prospective EFL teachers about using the correct intonation patterns of time adverbial clauses in English increases with training sessions to raise their awareness about this neglected part of English learning and teaching process.

As it is mentioned previously, the fact that using correct intonation patterns has crucial importance in especially EFL environments because of learners' lack of opportunity to be exposed to the foreign language in their daily life. Additionally, incorrect usages of stress, pauses or pitch patterns in connected speech can create some misunderstandings among foreign language speakers. Another important concern is sounding unnatural because of the previously mentioned intonation problems in speaking. It was found out in this study that these possible problems of foreign language communication can be prevented if necessary precautions are taken. In this case, necessary precautions are educating foreign language teachers initially about the correct usages of English intonation than about teaching this to foreign language learners.

As mentioned earlier, intonation teaching is generally accepted as a neglected part of language learning and teaching process and one of the most significant reasons of this situation is the fact that many EFL teachers are not qualified enough to teach English intonation as they do not have the necessary amount of English intonation knowledge themselves. In this study, it was observed that the remedial intonation teaching lessons were influential about raising the prospective EFL teachers' awareness about using correct English intonation contours in their speech. Their intonation problems related to incorrect primary stress placement or incorrect pause usages can be solved via giving special amount of effort to these aspects of English intonation with the help of Audio-articulation Method developed by Demirezen (2003, 2004). All in all; the results of the study show that English intonation problems of prospective EFL teachers are solvable if the necessary attention is given to solving these problems to raise more qualified English teachers to use and teach English intonation successfully.

Below all the results that were attained at the end of the study for three components of English intonation as pitch, sentence stress and juncture usages of the percentage averages of the participants were displayed in graphic forms to make for the reader easier to see the improvement in the participants' English intonation usages. Figure 4.1 represents the average success change in the participants of group 1 between pre and posttest measurements.
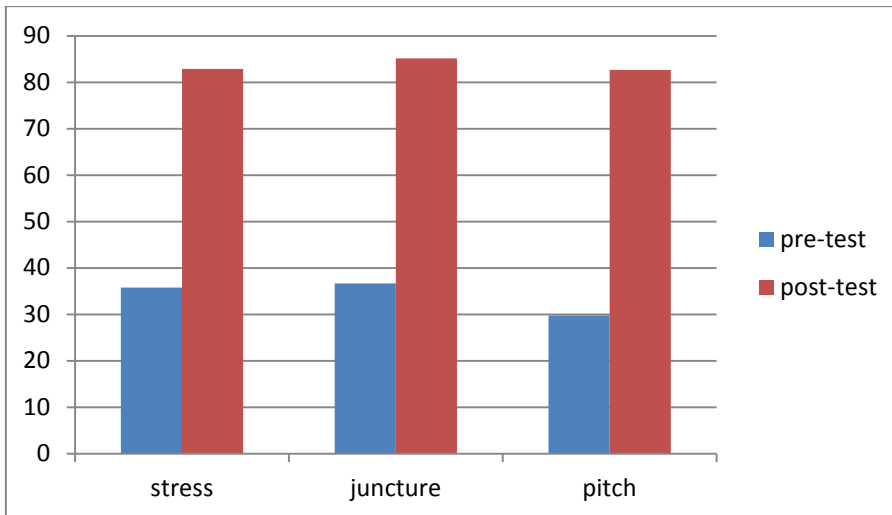
Figure 4.1. Results for Group 1

Figure 4.2 represents the advancement of the participants of group 2 in terms of sentence stress, pitch and juncture usages from pretest to posttest measurements.
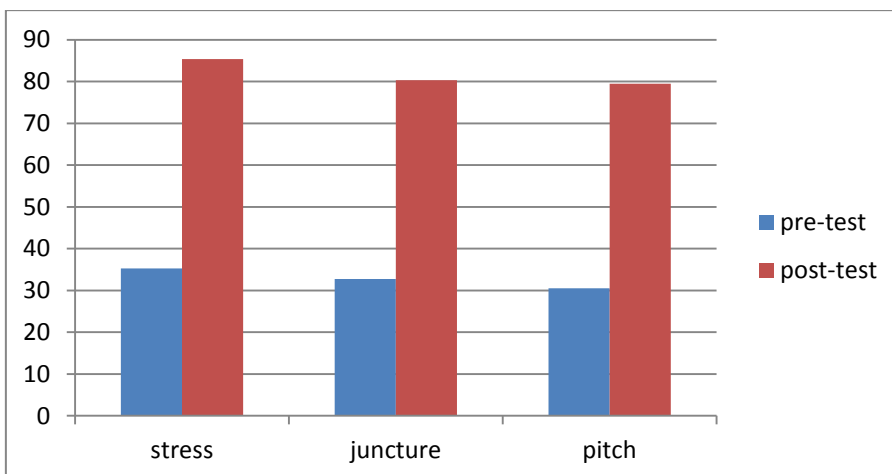
Figure 4.2. Results for Group 2

Figure 4.3 indicates the improvement of the participants of group 3 in sentence stress, juncture and pitch usages in English intonation by showing the average success difference.
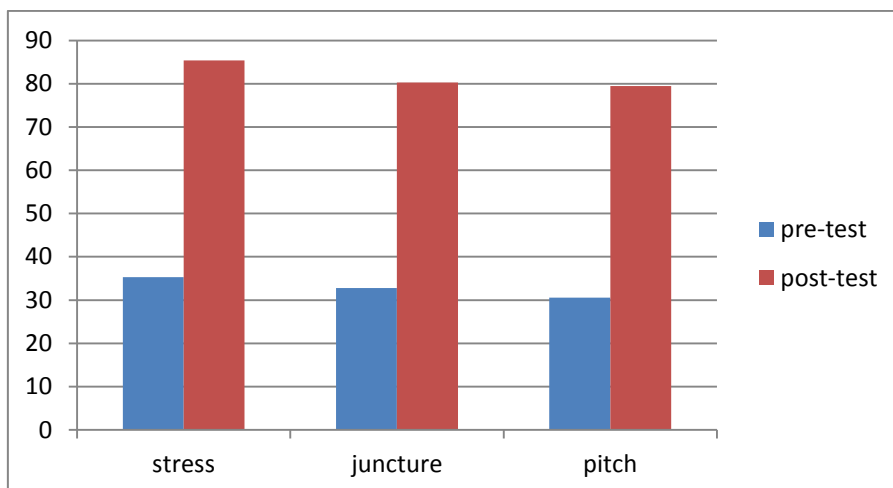
Figure 4.3. Results for Group 3

The below figure represents the participants' overall success rate between pre-tests and post-tests that were calculated by taking into account all the components of English intonation as one measurement of success.
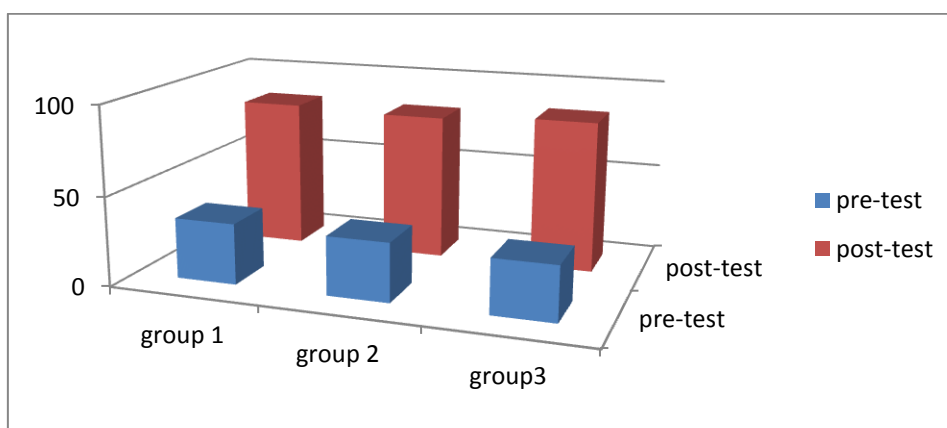
Figure 4.4. Overall Success Rate of the Participants in All the Components

In the Table 4.13, the average percentages of three groups in all the three components of English intonation investigated in this study can be seen.

Table 4.13: The Average Correct and Wrong Percentages for All Components

Group 1	Pretest: 34%	Posttest: 83%
Group 2	Pretest: 32%	Posttest: 81%
Group 3	Pretest: 30%	Posttest: 84%

4.6. Conclusion

In this chapter, detailed information about the results gathered at the end of all the data collection and evaluation processes of the study were displayed. The aim was to make the information that could be attained from this research clear with the help of providing percentage based knowledge about the participants' success in learning the correct sentence stress rules, juncture and pitch usages about the intonation of English time adverbial clauses. The information gathered at the end of the data analysis was presented in accordance with the three aspects of English intonation investigated in this study, which was mentioned above.

In the following chapter, the discussion of the results attained will be presented once more in accordance with the research questions. For each research question, the results of the study will be discussed for each group of time adverbials. The detailed explanations of the results will be provided to shed light on what can be gathered from this research in relation to English language teaching about the teaching and learning of English intonation patterns.

5. FINDINGS AND DISCUSSION

5.1. Introduction

In this section, the discussion of the results attained in this study will be explained in detail. All the discussions and interpretations of the results will be done in accordance with the research questions one by one. The section begins with the general discussion of the results. Then it continues with the specific interpretations of the results for each research question giving reference to the three components of English intonation, which are sentence stress, pitch and juncture phoneme usages.

As mentioned earlier, since there are three groups of participants attended to the study, the evaluations of the attained results will be presented for each group separately. The main aim of this section is to present what is gathered at the end of this study and what are the contributions of that study into the field of English language teaching and learning with providing specific reference to the intonation teaching part of ELT area.

5.2. Overall Evaluation of the Findings

The main concern of this study is the fact that in foreign language teaching area, English intonation teaching process is a neglected part of the whole language teaching and learning process. In Turkey, this is generally the case in both language teaching classrooms and in the ELT departments at universities. The curriculum of ELT department in many major universities in Turkey do not include specific bachelor degree or even graduate degree courses concerning the teaching and assessment of English intonation patterns in speech. This is an important lack of ELT department curriculum and it becomes more and more important in the foreign language teaching environments since learners have limited opportunities to acquire the English intonation patterns in daily speech out of language teaching classrooms. In that case, if the foreign language teachers are not qualified enough to teach the correct intonation usages of English to the learners, it may not be possible for foreign language learners in Turkey to learn and use correct English intonation patterns in their speech.

Using correct English intonation in British and North American English has been significant for many reasons. One of the most important reasons is the fact that using incorrect or faulty intonation, more specifically incorrect usages of sentence stress placement with incorrect pausing in articulating sentences in connected speech or faulty usages of pitch patterns can result in sounding unnatural while speaking English. So, the incorrect usages of English intonation are one of the most crucial reasons of foreign accent in nonnative speech. Having foreign accent is an important problem for both foreign language teachers and learners.

5.2.1. Discussion for Research Question 1

The fact that while speaking, speakers should put the primary stress phoneme on one of the content words is a corner stone of English intonation. All the nonnative speakers should be careful about this important rule of English intonation not to sound foreign. This aspect of intonation is maybe the first thing that is taught to the nonnative speakers because it is like a first step to learn about other components of intonation. Incorrect stress usages in English can result in misunderstandings and misinterpretations among nonnative speakers of English or between native and nonnative speakers (Brazil, 1997; Brown, 2014; Demirezen, 2012; Gumperz, 1982; Kelly, 2012). One other important concept about stress placement is sounding unnatural or foreign while speaking since putting primary stress on the wrong part of the sentence can make the speech robotic or unnatural.

As it can be seen from this short summary, the stress placement in English has a crucial importance to make one's speech more native-like and to sound less foreign. Even so, many foreign language learners have some important problems of primary stress placement in English. In addition, even the prospective English teachers who will teach this aspect of the language to the learners in the future have serious problems of stress placement in English.

As the results of this study indicate, pre-service English teachers who were first year students at the time of data collection and evaluation process were found to have primary stress placement problems in complex time adverbials in English. On the other hand, the promising fact found in the study is that these problems can be overcome to some extent with the help of a structured and organized intonation teaching sessions in pre-service teacher education classrooms. In this big picture,

the dashy part is that if this problem can be solved from the beginning, in this case it is correcting the intonation mistakes of the future language teachers, then, more native-like speakers can be raised in foreign language teaching and learning environments, as well. During the remedial teaching sessions, the awareness of prospective language teachers was seen to be risen about learning and applying the stress placement rules in English intonation. The increase in their success in putting the stress on the correct part of complex time adverbial sentences in English made it clear that if necessary attention is given to the teaching of correct usages of stress placement, the participants became more successful about having a more natural and near native-like speech.

Table 5.1: Summary of Paired Samples T-test Results and Descriptive Statistics for Stress Placement

	N	*Pretest Mean*	*SD*	*Post-test Mean*	*SD*	*p.*
Group 1	30	5.36/15	2.07	12.46/15	1.25	.00
Group 2	30	4.23/12	2.06	10.20/12	1.09	.00
Group 3	24	7.5 /21	3.05	17.67/21	1.46	.00

5.2.2. Discussion for Research Questions 2 and 3

It is a fact that juncture or pause in the connected speech in English can create perceptual differences and for this reason; the correct usages of juncture should be specifically taught to English language learners (Demirezen, 2013; Hahn, 2004; Halliday, 1967; Hişmanoğlu, 2012; Gussenhoven & Jocobs, 2012; Jenkins, 2005; Levis, 1999; Morley, 1991; Paterno, 2003; Swan, Walter, 2011; Wells, 2014). In this study, juncture placement was analyzed in two sentence types in complex time adverbials. The first type of clause is when the dependent clause precedes the main time clause and the second type is when the main clause precedes the dependent clause. Whether or not the participants make pauses in the correct places in the complex English sentences while articulating them was investigated.

Once more an increase in the success of the participants' use of English juncture phonemes was found at the end of the analysis of pretest and posttest results. When the dependent clause precedes the main time clause in complex time clauses in English, the dependent clause is separated from the main clause with a comma. So, when the speakers come to the end of the dependent clause namely, to the place of the comma, they are expected to make pause. As a result of the

analysis of the pretest, it was found out that some speakers did not care about the punctuation of the sentence while they were articulating it and they did not make any pause. In that case, they sounded really unnatural. Even grasping the meaning of the sentence became somewhat difficult especially when the sentence was a little bit longer.

When the main clause precedes the dependent clause in a complex time adverbial sentence in English, there is no comma in the sentence because time adverbial is placed in the middle of the sentence. In this case, speakers are not expected to make a long pause while articulating the sentence but they can use a sustained juncture phoneme after the main clause. In the analysis of the pretest results, it was again seen that the participants sometimes articulated these kings of sentences as if there was a comma in the sentence and they made long pauses when they were not supposed to do. Also, in both types of sentences, if they are affirmative, speakers should use a falling juncture phoneme at the end of the sentence to signal the closure or the end of the utterance. The case is different in the questions which require the speakers to use generally a rising juncture to indicate that the speakers actually do not finish her utterance and she is expecting an answer from the other party in the conversation. In the pretest analysis, this falling-rising juncture concept was found to be somewhat problematic in the participants' voice recordings, especially in the case of questions.

In both sentence types mentioned above, in the posttest results after the intervention sessions, the increase in the participants' correct placement of the juncture phoneme in English complex sentences was eye-catching. The speech of the participants became much more near native-like after the teaching sessions because their awareness about the importance of correct placement of pause in the longer speech patterns increased. They were made aware of the fact that the meaning of their utterances can change and they could be misunderstood by the listener if they were not careful about the place of the juncture phoneme in English. Likewise, the juncture usage in English questions including time adverbials were also corrected to a great extent after the awareness raising. So it can be concluded that purposeful and predetermined teaching of correct placement of pausing or juncture in English is beneficial for foreign language learners.

Table 5.2: Summary of the Paired Samples T-test Results for Juncture Phoneme Usage and Descriptive Statistics

	N	Pretest Mean	SD	Post-test Mean	SD	p.
Group 1	30	5.5/15	2.38	12.76/15	1.30	.00
Group 2	30	3.93/12	1.91	9.93/12	1.37	.00
Group 3	24	6.29/21	2.51	18.25/21	1.18	.00

5.1.1. Discussion for Research Questions 4

The fourth research question was formed to find out which pitch pattern the participants use in two types of adverbial clauses, one of which is when the dependent clause precedes the independent clause and the other one is when the independent clause comes before the dependent clause. The results of the study showed that among the three aspects of English intonation investigated which are pitch patterns; juncture and sentence stress usages of the prospective foreign language teachers in complex time adverbials, the pitch usages were found to be more problematic than stress and juncture usages. This result is important because it gives the language teachers some insights about which aspects of English intonation are more difficult to learn for the foreign language learners. This is also important for the syllabus design of an intonation teaching course that can be applied in teacher education departments of in normal EFL classrooms.

When the posttest results are taken into consideration, there is a promising situation like in other aspects of English intonation learning in the sense that the participants could correct their pitch usage mistakes and could sound more natural in their intonation while speaking English.

Table 5.3: Summary of the Paired Samples T-test Results for Pitch Usage and Descriptive Statistics

	N	Pretest Mean	SD	Post-test Mean	SD	p.
Group 1	30	4.46/15	2.08	12.4/15	1.52	.00
Group 2	30	3.66/12	1.93	9.53/12	1.27	.00
Group 3	24	5.41/21	2.30	17.58/21	2.02	.00

5.1.2. Discussion for Research Questions 5

It was observed at the end of this research study that in all the subcomponents of English intonation investigated which were primary stress placement, juncture and pitch usages, participants were found to be developed. Participants improved their skills and they solved most of their English intonation problems. Therefore, the teaching sessions were found to be beneficial for the learners, as well. The Audio-

articulation intonation and pronunciation teaching model (Demirezen, 2003, 2004) used in the intervention sessions was found to be effective to reach intonation teaching goals determined beforehand. These are really promising and meaningful results for the future place of English intonation teaching in language teaching field. Since intonation teaching is generally a neglected part of ELT field, such research studies show the importance and success of English intonation teaching and awareness raising activities for the language learners.

5.2. Conclusion

In this section of the study, the answers that were found for each research question were presented. Additionally, the comments of the researcher regarding these answers were provided to make an evaluation of the results. In the discussion of the each research question of the study, applicable insights about the teaching and learning of English intonation patterns specifically related to sentence stress, juncture and pitch phonemes usages were stated. This section of the study has a crucial importance in the sense that the statistical evaluation of the attained results of the study takes a real practical shape for the language teaching and learning process in both teacher education departments in the universities and foreign language teaching classrooms.

6.   CONCLUSION

From the beginning of this research study, it was stated repeatedly that intonation teaching is a neglected part of English language teaching area in both second language teaching (SLT) and foreign language teaching (FLT) contexts (Brazil, 1997; Cauldwell and Hewings, 1996; Celce Murcia et al, 2010; Demirezen, 1986, 2014; Hahn, 2004; Hişmanoğlu, 2006; Huynh, 2012; Kelly, 2012; Morley, 2011; Taylor, 1993), one of which is Turkish context. The corner stone in the impact of the lack of English intonation teaching in SLT and FLT environments is that the students who are leaning English in SLT contexts have greater opportunities to acquire the intonation rules of the language outside of the class even if English intonation was not taught them in the English classes. The reason is that they are using English in their daily life and they have many opportunities to observe native speakers using the language and its intonation rules. As a result, sooner or later these second language learners can use the correct intonation patterns while speaking.

The above stated situation of the second language learners is not the same considering the foreign language learners, in this specific case; Turkish learners of English. As mentioned at the beginning that the foreign language learners generally have their only opportunities to learn and use the language in language teaching classrooms. Once more, if the status of English in Turkey is taken into account, it should be mentioned that Turkish learners of English have interaction opportunities in the language they are learning mostly in the language classes. The conclusion that should be drawn from this is the fact that if rules and usages of English intonation are not taught to them specifically in the classes, it is almost impossible for them to learn and use correct English intonation patterns. Therefore, it can be acknowledged that the negative effects of the lack of purposeful intonation teaching activities in FLT environments have crucial importance for foreign language learner because it can have damaging effects in terms of the speaking skills of those learners.

For foreign language learners using correct intonation patterns while speaking English is hard because there are many different dialects of English like British, North American, Australian, Canadian, and New Zealand etc. Among the most

significant damaging effects of not using the correct intonation patterns while speaking English, having a noticeable foreign accent in the speech, sounding unnatural to the native speakers can be counted due to faulty pronunciation. These are important problems of Turkish learners of English, as well. Maybe more important fact in Turkey concerning the lack of intonation teaching is that not only learners but also many English teachers do not have the necessary knowledge skills of English intonation to teach it to their students as it was acknowledged ones more in the pretest results of 84 prospective EFL teachers participated in this study. They all were found to have troubles of English intonation in their speech related to primary stress, juncture and pitch usages. Therefore, it is not wrong to state that there is a crucial problem relating to the learning and teaching of English intonation patterns from the beginning of the teaching process. For this reason, one of the main purposes of this study was to observe the proficiency levels of prospective English teachers of a high raking state university in Turkey in terms of their English intonation knowledge and teaching skills. The second important aim of the study was to show whether or not English intonation rules are teachable because it is sometimes stated that intonation teaching is a neglected part of ELT field because it is one of the least teachable part of English compared to the other skills like listening or reading.

The important conclusions that can be reached in this study are the facts that the 84 prospective teachers of English participated in this study were found to have some problems of English intonation knowledge firstly and then teaching of it. One promising result of the study is that intonation rules and usages concerning the different subcomponents of English intonation, which were stress, juncture and pitch rules in that specific research study, are teachable. The participants were found to gain benefits from the remedial intonation teaching lessons. The participants had three hours of English intonation teaching sessions and they showed a good development in their intonation usage according to posttest results. In that case, it should also be reminded that if the specific attention is given to the teaching of English intonation rules in the curricula of ELT departments in Turkey, the positive impacts could be seen about the issue of training more competent and skillful foreign language teachers in Turkey. So, the important insight reached in this study is the fact that the specific attention should

be given to intonation teaching in ELT curricula in ELT departments in Turkey. This issue becomes even more important considering that Turkey has is a foreign language learning environment. Attaching the required importance to developing the intonation knowledge of ELT department students can lead to important results in long terms. For this reason, more importance should be attached to the issue of training more skillful foreign language teachers in terms of the teaching of English intonation.

6.1. Pedagogical Implications & Limitations

In terms of methodological implications, it can be stated that the used data collection method was found to be suitable for the purposes of the study. To observe the level of improvement in terms of the investigated variables, which were participants' pitch, stress and juncture usages in English intonation in this specific study, the pretest posttest experimental design was beneficial. Since there were remedial intonation teaching sessions carried out with the participants in this study, this previously mentioned research design was helpful.

The following limitations can be stated for this study;

- Since only one ELT department in a university and one grade level (first year students) were included in the study, comparisons among different universities or grade levels were not possible.

- In terms of methodology, in the pretest and posttest data collection process, the voice recordings of the participants were collected via e-mail. This could be problematic because of some technological problems and it was also a little bit time-consuming. So, a more practical way of collecting data could be used.

- The last limitation is related to the fishy nature of English intonation and its many types of uses that should be given more attention in the language research area.

6.2. Suggestions for Further Research

In this study, the importance of giving specific attention about raising awareness of prospective EFL teachers on English intonation and different components of it as in this case; juncture, stress and pitch usages. It was seen that if the necessary amount of effort is put to teach the correct intonation usage in complex sentences

in English, the results were positive and promising for further studies. It can be stated that further research can take into account the following points.

- One recommendation can be expanding the number and the scope of participants to reach more valid and generalizable research results for future studies. More English language teaching departments in different universities can be incorporated to the data collection process. In that way, the place of English intonation teaching in the curriculum of ELT departments in different universities in Turkey can be compared to have a broader picture of English intonation teaching activities in pre-service teacher education curricula in Turkey. By incorporating more ELT department in to the research study, the number of participants also increases and more reliable data can be gathered. In this way, different comparison variables might be gathered like grade levels in the university.

- The second recommendation could be enlarging the data collection and remedial teaching process for a whole year by gathering data more than once and by spreading the teaching sessions in a longer time period. In that way, achieved levels of students' success and its duration can be traced more accurately.

- The last recommendation is that some semi-structured interviews with the participants could be arranged to collect qualitative data, as well. It can be better to learn the views of prospective EFL teachers about the effects of intonation teaching sessions and how they feel about their qualifications to teach English intonation when they graduate.

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APPENDICES

APPENDIX 1. ETHICS COMMITTEE APPROVAL NOTIFICATION

T.C.
HACETTEPE ÜNİVERSİTESİ
Genel Sekreterlik

Sayı : 76000869/ 433-426

17 Şubat 2015

EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi: 22.12.2014 tarih ve 2409 sayılı yazınız.

Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı Tezli yüksek lisans programı öğrencisi **Fulda KARAAZMAK**'ın, **Prof. Dr. Mehmet DEMİREZEN** danışmanlığında yürüttüğü **"İngilizce Öğretmen Adaylarında Zaman Gösteren Yan Cümlelerin Entonasyon Örüntülerinin Geliştirilmesi: Bir Deneysel Çalışma"** başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun 12 Şubat 2015 tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini rica ederim.

Prof. Dr. Ömer UĞUR
Rektör a.
Rektör Yardımcısı

Ek: Tutanak

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APPENDIX 2. DATA COLLECTION INSTRUMENT (CORPUS OF SENTENCES)

Group 1: before, after, when, while, since

1. Before I could say anything more, Holmes had rushed off towards the station.
2. She wanted to finish cleaning her room before she went out.
3. You have to pass a test before you can get a license.
4. After you had called the police, what did you do?
5. Zimmerman changed his name after he left Germany.
6. I will do the shopping after I finish work.
7. He is going to get a job when he leaves university.
8. Leonard was nine when his father died.
9. When you get to the office, you will see a tall man named Sean.
10. While she was asleep, thieves broke in and stole her bag.
11. They arrived while we were having dinner.
12. What did you do while you were there?
13. I haven't played rugby since I left university.
14. She has lived in London since she was twenty.
15. Since we moved here, it has been one problem after another.

Group 2: once, every time, whenever, by the time

1. Once I get him a job, he will be fine.
2. I will send you my new address once I have found somewhere to live.
3. We'll send your tickets once we've received your cheque.
4. The roof leaks every time it rains.
5. I feel very excited every time I see him.
6. Every time we get together with old friends, we spend great time together.
7. Larry always blames me whenever anything goes wrong.
8. Whenever I hear that tune, it makes me think of you.
9. You can come and visit me whenever you want.
10. The phone was ringing but by the time she got indoors, it had stopped.
11. The rain had already stopped by the time we came home.
12. By the time I arrived at the café, all of my friends were waiting for me.

Group 3: as, until, till, soon after, as long as, as soon as

1. I saw Peter as I was getting off the bus.
2. As time passed, things seemed to get worse.
3. I think your opinions change as you get older.
4. We take care of the kids until mom gets home.
5. She couldn't drive away until Eric got into the car.
6. Until my father came home, we didn't have dinner.
7. I didn't have a boyfriend till I was seventeen.
8. I lived with my parents till I was twenty.
9. Till you come home, I will wait for you.
10. Until we know each other a little better, we may not get along fine.
11. As long as I think of it, I acted the same way when I was his age.
12. I can visit her more often as long as I have got a car.
13. Paula became pregnant soon after they were married.
14. He joined the company soon after he left college.
15. Soon after they met, they married.
16. As soon as she walked in, we left the party.
17. I will come over to your place as soon as I can.
18. I can pay you back as soon as I have the money.
19. You can go out to play as long as you stay in the backyard.
20. As long as we keep playing well, we'll keep winning games.
21. You can stay for as long as you want.

APPENDIX 3. DETAILED INTONATION ANALYSIS OF THE TREATMENT LESSONS EXERCISES

GROUP 1 EXERCISES- DETAILED INTONATION ANALYSIS

EXERCISE A

1. Before things get better, they get worse.

INTONATION: /**2** Before things get **3BÉTTER2→2**they get **3WÓRSE1**↓ /

2. When I leave school, I am going to travel around the world.

INTONATION: /**2**When I leave **3SCHÓOL2 →2** I am going to **3TRÁVEL** around the world**1**↓ /

3. While she does the cleaning, we will do the cooking.

INTONATION: /**2**While she does the **3CLÉAN**ing**2 →2** we will do the **3CÓOK**ing**1**↓ /

4. The performance had already started when we arrived.

INTONATION: /**2**The performance had already **3STÁRT**ed when we arrived**1**↓ /

5. I saw her a few days before she died.

INTONATION: /**2**I saw her a few **3DÁY**s before she died**1**↓ /

6. They will watch television before they go to bed.

INTONATION: /**2**They will watch **3TÉl**evision before they go to bed**1**↓ /

7. I haven't played rugby since I left university.

INTONATION: /**2**I haven't played **3 RÚGBY** since I left university **1**↓/

8. Zimmerman changed his name after he left Germany.

INTONATION: /**2**Zimmerman changed his **3 NÁ**me after he left Germany **1** ↓/

9. You have to pass a test before you can get a license.

INTONATION: /**2**You have to pass a **3TÉ**ST before you can get a license**1** ↓/

10. I will do the shopping after I finish work.

INTONATION: /**2** I will do the **3SHÓP**ping after I finish work**1** ↓/

11. My parents divorced when I was six.

INTONATION: /**2** My parents **3DIVÓR**ced when I was six**1** ↓/

EXERCISE B

1. Before I could say anything more, Holmes had rushed off towards the station.

INTONATION: /**²**Before I could say **³ÁNY**thing more**²**→**²**Holmes had **³RÚSH**ed off towards the station**¹**↓ /

2. I will do the shopping after I finish work.

INTONATION: /**²** I will do the **³SHÓP**ping after I finish work**¹** ↓/

3. It was exactly five years since our father had died.

INTONATION: /**²**It was exactly **³FÍVE** years since our father had died**¹** ↓/

4. She has lived in London since she was twenty.

INTONATION: /**²**She has lived in **³LÓN**don since she was twenty**¹**↓/

5. What did you do while you were there?

INTONATION: /**²**What did you **³ DÓ** while you were there**³**↑/

6. Would you look after the children while I do the shopping?

INTONATION: /**²**Would you look after the **³CHÍLDREN** while I do the shopping**³**↑/

7. When he was in the airforce, he flew tornado jets.

INTONATION: /**²**When he was in the **³**air**FÓRCE²**→**²**he flew **³TÓR**nado jets**¹**↓/

8. Graham had barely finished his coffee when Henry returned.

INTONATION: /**²** Graham had barely finished his **CÓF**fee when Henry returned**¹**↓/

9. My parents divorced when I was six.

INTONATION: /**²** My parents **³DIVÓR**ced when I was six**¹** ↓/

10. They arrived while we were having dinner.

INTONATION: /**²**They **³**ar**RÍ**ved while we were having dinner**¹**↓/

EXERCISE C

1. We first became friends when we worked together.

INTONATION: /**²**We first became **³FRÍENDS** when we worked together**¹**↓/

2. She had hardly sat down when the phone rang.

INTONATION: /**²**She had hardly **³SÁT** down when the phone rang**¹**↓/

3. I will phone you again when I get home.

INTONATION: /**²**I will **³PHÓNE** you again when I get home**¹**↓/

4. When I arrive home, I will phone my parents.

INTONATION: /²When I ³ar**RÍ**ve home²→² I will ³**PHÓNE** my parents¹↓/

5. That dog ougt to be destroyed before it attacks any more children

INTONATION: /²That dog ougt to be ³**DESTRÓ**Yed before it attacks any more children¹↓/

6. When the family came here from Russia, they were penniless.

INTONATION: /²When the ³**FÁ**mily came here from Russia²→² they were ³**PÉN**niless¹↓/

7. When I leave school, I am going to travel around the world.

INTONATION: /²When I ³**LÉ**AVE school ²→² I am going to ³**TRÁVEL** around the world¹↓/

EXERCISE D

1. She wanted to finish cleaning her room before she went out.

INTONATION: /²She wanted to³ **FÍ**nish cleaning her room before she went out¹↓/

2. After you had called the police, what did you do?

INTONATION: /²After you had called the ²po**LÍCE** → what did you do³ ↑ /

3. I haven't played rugby since I left university.

INTONATION: /²I haven't played ³ **RÚGBY** since I left university ¹↓/

4. When you get to the office, you will see a tall man named Sean.

INTONATION: /²When you get to the ³ **ÓF**fice ² →²you will see a ³ **TÁLL** man named Sean¹ ↓/

5. While she she was asleep, thieves broke in and stole her bag.

INTONATION: /²While she was ³a**SLÉEP** ²→ ²thieves ³ **BRÓKE** in and stole her bag¹ ↓/

EXERCISE E

1. He is going to get a job when he leaves university.

INTONATION: /²He is going to get a ³**JÓB** when he leaves university¹↓/

2. He has worked in that same office week after week year after year since he was eighteen.

INTONATION: /**²**He has worked in that same **³ÓFFICE** week after week year after year since he was eighteen**¹**↓/

3. I visit my grandmother when I have got time.

INTONATION: /**²**I visit my **³GRÁND**mother when I have got time**¹**↓/

4. When the meal was finished, Rachel washed up and made coffee.

INTONATION: /**²**When the meal was **³FÍNISH**ed **²**→**²**Rachel washed up and **³MÁDE** coffee**¹**↓/

5. Leonard was nine when his father died.

INTONATION: /**²**Leonard was **³ NÍNE** when his father died**¹**↓/

6. I will phone you again when I get home.

INTONATION: /**²**I will **³PHÓNE** you again when I get home**¹**↓/

GROUP 2 EXERCISES- DETAILED INTONATION ANALYSIS
EXERCISE A

1. Once I get him a job, he will be fine.

INTONATION: /**²**Once I get him a **³ JÓB ²**→ **²**he will be **³ FÍNE¹**↓/

2. The phone was ringing but by the time she got indoors, it had stopped.

INTONATION: /**²**The phone was **³RÍNG**ing**²** → but **²**by the time she got **³**in**DÓOR**s**²**→ **²**it had **³ STÓP**ped **¹**↓ /

3. Come and visit me whenever you want.

INTONATION: /**²**Come and **³VÍSIT** me whenever you want**¹**↓/

EXERCISE B

1. The phone was ringing but by the time she got indoors, it had stopped.

INTONATION: /**²**The phone was **³RÍNG**ing**²** → but **²**by the time she got **³**in**DÓOR**s**²**→ **²**it had **³ STÓP**ped **¹**↓ /

2. Come and visit me whenever you want.

INTONATION: /**²**Come and **³VÍ**SIT me whenever you want**¹**↓/

3. Once I get him a job, he will be fine.

INTONATION: /**²**Once I get him a **³ JÓ**B **²**→ **²**he will be **³ FÍ**NE**¹**↓/

<u>**EXERCISE C**</u>

1. Larry always blames me whenever anything goes wrong.

INTONATION: /**²**Larry always **³ BLÁ**MES me whenever anything goes wrong **¹**↓/

2. Whenever I hear that tune it makes me think of you.

INTONATION: /**²**Whenever I hear that **³ TÚ**NE **²**→ **²**it **³ MÁ**KES me think of you**¹**↓/

3. The roof leaks every time it rains.

INTONATION: /**²**The roof **³ LÉ**AKS every time it rains **¹**↓/

4. Every time we get together with old friends, we spend great time together.

INTONATION: /**²**Every time we get together with old **³ FRIÉ**NDS **²**→**²**we spend great **³ TÍ**ME together**¹**↓/

GROUP 3 EXERCISES- DETAILED INTONATION ANALYSIS
<u>**EXERCISE A**</u>

1. We take care of the kids until mom gets home.

INTONATION: /**²**We take care of the **³KÍD**s until mom gets home**¹**↓/

2. I will come over to your place as soon as I can.

INTONATION: /**²**I will come over to your **³PLÁCE** as soon as I can**¹**↓/

3. As time passed, things seemed to get worse.

INTONATION: /**²**As time **³ PÁSS**ed **²**→ **²**things seemed to get **³ WÓRSE ¹**↓/

4. Until we know each other a little better, we may not get along fine.

INTONATION: /**²**Until we know each other a little **³BÉTTER ²**→ **²**we may not get along**³FÍNE ¹**↓/

5. You can stay for as long as you want.

INTONATION: /**²**You can **³STÁY** for as long as you want**¹**↓/

6. I saw Peter as I was getting off the bus.

INTONATION: /²I saw ³ **PÉ**ter as I was getting off the bus ¹↓/

EXERCISE B

1. As soon as she walked in, we left the party.

INTONATION: /²As soon as she ³**WÁLK**ed in²→ ²we ³ **LÉFT** the party¹↓/

2. As long as we keep playing well, we'll keep winning games.

INTONATION: /²As long as we ³**KÉEP** playing well²→ ²we'll keep winning ³ **GÁME**S¹↓/

3. As long as I think of it, I acted the same way when I was his age.

INTONATION: /²As long as I ³**THÍNK** of it²→²I acted the same ³**WÁY** when I was his age¹↓/

4. I didn't have a boyfriend till I was seventeen.

INTONATION: /²I didn't have a ³**BÓY**friend till I was seventeen¹↓/

5. Can you wait with me until the bus leaves?

INTONATION: /²Can you ³**WÁIT** with me until the bus leaves³↑/

6. She couldn't drive away until Eric got into the car.

INTONATION: /²She couldn't drive away until ³**ÉRIC** got into the car ¹↓/

EXERCISE C

1. Paula became pregnant soon after they were married.

INTONATION: /² Paula became ³**PRÉG**nant soon after they were married¹↓/

2. You can go out to play as long as you stay in the backyard.

INTONATION: /²You can go out to³ **PLÁY** as long as you stay in the backyard¹↓/

3. I can pay you back as soon as I have the money.

INTONATION: /²I can ³**PÁY** you back as soon as I have the money¹↓/

EXERCISE D

1. As soon as they get up, they go running.

INTONATION: /²As soon as they ³**GÉT** up ²→ ² they go ³**RÚN**ning¹↓/

2. We waited until she had finished speaking.

INTONATION: /²We ³**WÁIT**ed until she had finished speaking¹↓/

3. As soon as I feel bored, I stop reading.

INTONATION: /² As soon as I feel ³**BÓRED**²→ ²I stop ³**RÉAD**ing¹↓/

4. As soon as she entered the room, she knew there was something wrong.

INTONATION: /² As soon as she ³**ÉNTER**ed the room²→ ²she knew there was ³**SÓME**thing wrong¹↓/

APPENDIX 4. TREATMENT LESSONS EXERCISES

EXERCISES FOR GROUP 1

Exercise A

Listen to the following time clauses and find out which words have the primary stress.

1. Before things get better, they get worse.

    A) before- things   B) get-they   C) better-worse

    D) get-they   E) better-they

2. When I leave school, I am going to travel around the world.

    A) I-travel   B) school-world   C) when- the

    D) leave-to   E) school-around

3. While she does the cleaning, we will do the cooking.

   A) she-we   B) does-will   C) we-cooking

    D) cleaning-cooking   E) while-do

4. The performance had already started when we arrived.

   A) started- arrived   B) the-we   C) the-when

    D) already- we   E) performance- had

5. I saw her a few days before she died.

   A) I-she   B) few-before   C) her-died

    D) days-died   E) saw-she

6. They will watch television before they go to bed.

 A) television-bed   B) they-before   C) will-go

 D) they-to   E) will-bed

7. I haven't played rugby since I left university.

 A) haven't-I   B) rugby-since   C) rugby-university

  D) played-since   E) I-left

8. Zimmerman changed his name after he left Germany.

    A) his- Germany   B) changed- left   C) after – he

 D) Zimmerman- he   E) his- left

9. You have to pass a test before you can get a license.

A) test-license   B) you-can   C)get -you

D) have-can   E) before-can

10. I will do the shopping after I finish work.

 A) will-I   B) the-after   C) shopping-work

 D) do-I   E) the-finish

11. My parents divorced when I was six.

 A) my-when   B) parents-I   C) my-was

 D) divorced-six   E) parents-was

Exercise B

Listen to the following time clauses and find out the place of jucture (pause).

1. Before I could say anything more, Holmes had rushed off towards the station.

 A) Holmes   B) more   C) (null)   D) the   E) before

2. I will do the shopping after I finish work.

 A) Will   B) shopping   C) after   D) (null)   E) finish

3. It was exactly five years since our father had died.

 A) Since   B) exactly   C) years   D) father   E)(null)

4. She has lived in London since she was twenty.

 A) (nulll)   B) has   C) London   D) she   E) was

5. What did you do while you were there?

 A) Did   B) (null)   C) while   D) do   E) were

6. Would you look after the children while I do the shopping?

 A) you   B) children   C) (null) D) while   E) do

7. When he was in the airforce, he flew tornado jets.

 A) was   B) airforce   C) flew   D) he   E) tornado

8. Graham had barely finished his coffee when Henry returned.

 A) Graham   B) finished   C) coffee   D) when E) (Null)

9. My parents divorced when I was six.

 A) my   B) divorced   C) when   D) I   E) (null)

10. They arrived while we were having dinner.

 A) arrived   B) (null)   C) we   D) while   E) having

Exercise C: Matching activity

1. We first became friends
2. She had hardly sat down
3. I will phone you again
4. When I arrive home
5. That dog ougt to be destroyed

6. When the family came here from Russia,

7. When I leave school,

A) when we worked together.

B) they were penniless

C) when ı get home.

D) ı will phone my parents.

E) before it attacks any more children

F) ı am going to travel around the world.

G) when the phone rang.

Exercise D: Sentence Completion

1. She wanted to finish cleaning her room _____ she went out.

2. _____ you had called the police, what did you do?

3. I haven't played rugby _____ I left university.

4. _____ you get to the office, you will see a tall man named Sean.

5. _____ she was asleep, thieves broke in and stole her bag.

Exercise E: Sentence Completion Multiple Choice

Choose the correct alternative to complete the sentences with giving attention to the stressed words and pich patterns. Then listen and check your answers.

1. He is going to get a job when _____.

A) he leaves university.

B) he went to school.

C) he studied his lessons.

D) he used to go to school.

E) he will leave university.

2. He has worked in that same office week after week year after year since _____.

A) he lives there.

B) he was eighteen

C) he will come to visit you.

D) he has hoped to be happy.

E) he is going to see you.

3. I visit my grandmother when _____.

A) I will see them.

B) I had some time.

C) I had had some time.

D) I have got time.

E) I am going to get there.

4. When the meal was finished _____.

A) Rachel will wash the dishes.

B) Rachel washed up and made coffee.

C) We will clean the house.

D) We have had some coffee.

E) Rachel has been washing the dishes.

5. Leonard was nine when _____.

A) I come here.

B) his father died.

C) his father dies.

D) he get arrested

E) he will go to school

 6. I will phone you again when _____.

A) We came home.

B) I will come home.

C) We used to get home.

D) I saw her.

E) I get home.

EXERCISES FOR GROUP 2

Exercise A

Listen to the following time clauses and find out which words have the primary stress.

1. Once i get him a job, he will be fine.

   a)once-he   b) get-will   c) him-be

    d) ı-he   e) job-fine

2. The phone was ringing but by the time she got indoors, it had stopped.

   a)but-she   b) was-got   c) she-had

    d) ringing-indoors   e) had- stopped

3. Come and visit me whenever you want.

 a)come-visit b) and-me c) visit- you

 d) whenever-you e) me-you

Exercise B

Listen to the following time clauses and find out the place of the jucture (pause).

1. The phone was ringing but by the time she got indoors, it had stopped.

a) but b) by   c) she d) indoors e) had

2. Come and visit me whenever you want.

 a)(null) b) and c) visit d) whenever e) you

3. Once i get him a job, he will be fine.

 A) once b) job c) him d)will e)he

Exercise C: sentence completion multiple choice

Choose the correct alternative to complete the sentences with giving attention to the stressed words and pich patterns. then listen and check your answers.

  1. Larry always blames me whenever _____.

a) he came to see me.

b) anything goes wrong.

c) he was here.

d) anything will go wrong.

e) he will be here.

2. Whenever i hear that tune _____.

  A) it makes me think of you.

  B) it reminded me of you.

  C) it will give me a bad feeling

  D) it had made me angry

  E) it made me happy

3. The roof leaks_____.

a) when he came.

b) while she was cleaning it.

c) every time it rains.

d) before she had gone out.

e) after she could come here.

4. Every time we get together with old friends _____.

a) we are going to come together.

b) we are not going to listen to you.

c) we wanted you to join us.

d) we finally missed ou a lot.

e) we spend great time together.

EXERCISES FOR GROUP 3

Exercise A

Listen to the following time clauses and find out which words have the primary stress.

   1. We take care of the kids until mom gets home.

  A) We- until   b) kids-home   c) of- gets

  D) the- home   e) the- until

2. I will come over to your place as soon as I can.

  A) will- as soon as   b) ı- can   c) place-can

  D) come- I   e) over-to

3. As time passed, things seemed to get worse.

  A) Passed-worse   b) time-to   c)as- worse

  D) passed- to   e) as- seemed

4. Until we know each other a little better, we may not get along fine.

  a) until-we   b) better-fine   c) not-get

  d) we- get   e) each-along

5. You can stay for as long as you want.

  a) you- as   b) can- you   c) stay-want

  d) for-want   e) stay- you

6. I saw peter as I was getting off the bus.

  a)I- as   b) saw- off   c) peter- off

  d) as-bus   e) saw- bus

Exercise B

Listen to the following time clauses and find out the place of the jucture (pause).

1. As soon as she walked in, we left the party.

  a) we   b) in   c) as soon as   d) the   e) left

2. As long as we keep playing well, we'll keep winning games.

   a) playing   b) keep   c) well   d) we'll   e) winning

3. As long as I think of it, I acted the same way when I was his age.

   a)it   b) acted   c) the   d) way   e) when

4. I didn't have a boyfriend till I was seventeen.

   a)Didn't   b) boyfriend   c)till   d) (null)   e) was

5. Can you wait with me until the bus leaves?

   a) can   b) me   c) until   d) (null)   e) bus

6. She couldn't drive away until Eric got into the car.

   a) (null)   b)couldn't   c) into   d) away   e) until

Exercise C: Matching activity

   1. Paula became pregnant

   2. You can go out to play

   3. I can pay you back

   A) As soon as I have the money.

   B) As long as you stay in the backyard.

   C) Soon after they were married.

Exercise D: Sentence completion multiple choice

Choose the correct alternative to complete the sentences with giving attention to the stressed words and pich patterns. Then listen and check your answers.

   1. As soon as they get up, they _____.

   A) Go running.

   B) Ate breakfast.

   C) Would see me.

   D) Had exercised

   E) Were happy.

2. We waited until she _____.

A) sees us.

B) had finished speaking.

C) will come our house.

D) has finished her homework.

E) should see the doctor.

3. _____, I stop reading.

 A) As soon as I feel bored,

 B) Until I came here,

 C) Until you saw me,

 D) As long as you had seen me,

 E) As I felt bored,

4. _____, she knew there was something wrong.

A) until she has known you,

B) until she would have come here,

C) as long as she sees you,

D) as long as she is sure of it,

E) as soon as she entered the room,

Exercise E: Cloze test

Complete the followıng sentences using 'as', 'just as', 'while' and 'as soon as'. Then listen to the sentences and find out which words get the primary stress.

Yesterday, i told ben we have to start planning for our vacation. Ben told me that we could do it A. ___ he got home. I was so excited and prepared a lovely dinner for us.

B. ___ i was cleaning the kitchen, ben did some research on the internet. We have decided to go to England for our summer vacation.

Ben switched off his computer just C. ___ the phone started ringing. It was his boss phoning from South Africa. According to his boss, an urgent project came up. I felt like crying D.___ i listened to the conversation. Our vacation plans were ruined.

MIXED EXERCISES

Exercise A

Listen to the following time clauses and find out which words have the primary stress.

1. Before things get better, they get worse.

 a) before, get b) get, worse c) better, worse

 d) get, they   e) better, they

2. We waited until she had finished speaking.

    a) waited, until   b) had, finished   c) she, speaking

    d) until, she   e) waited, speaking

3. When i leave school, ı am going to travel around the world.

    a) i, travel   b) school, world   c) when, travel

    d) leave, going   e) school, around

4. While she does the cleaning, we will do the cooking.

    a) she, we   b) does, will   c) we, cooking

    d) cleaning, cooking   e) while, do

5. The performance had already started when we arrived.

    a) started, arrived   b) the, we   c) started, when

    d) already, when   e) performance, when

6. I saw her a few days before she died.

    a) I, she   b) few, before   c) saw, died

    d) days, before   e) saw, she

7. As soon as i feel bored, ı stop reading.

    a) bored, reading   b) feel, I   c) feel, reading

    d) as soon as, O   e) bored, stop

8. They will watch television before they go to bed.

  a) television, bed   b) they, before   c) will, go

  d) they, go   e) will, bed

9. As soon as she entered the room, she knew there was something wrong.

  a) she, was   b) entered, knew   c) as soon as, she

  d) the, she   e) room, there

10. I haven't played rugby since I left university.

  a) haven't, I   b) rugby, since   c) played, university

  d) plkayed, since   e) rugby, left

11. I feel very excited every time I see him.

  a) excited, see   b) I, every time   c) feel, him

  d) very, him   e) every time, see

12. The rain had already stopped by the time we came home.

  a) stopped, home   b) the, by the time   c) the, we

  d) rain, we   e) already, came

13. You can stay for as long as you want.

   a) you, as long as   b) can, you   c) stay, want

   d) for, want   e) stay, you

14. I lived with my parents till ı was twenty.

   a) I, till   b) lived, twenty   c) lived, was

   d) with, till   e) my, twenty

15. Until we know each other a little better, we may not get along fine.

   a) until, we   b) better, fine   c) know, get

   d) we, get   e) each other, along

Exercise B

Listen to the following time clauses and find out the place of the jucture (pause).

1. As soon as they get up, they go running.

   a) as soon as   b) up   c) they   d) go   e) get

2. It was exactly five years since our father had died.

   a) years   b) since   c) (null) d) had   e) it

3. When he was in the airforce, he flew tornado jets.

    a) was   b) airforce   c) flew   d) he   e) tornado

4. Graham had barely finished his coffee when henry returned.

    a) graham   b) finished   c) coffee   d) when e) henry

5. As soon as she walked in, we left the party.

   a) we   b) in   c) as soon as   d) the   e) left

6. As long as we keep playing well, we'll keep winning games.

   a) playing   b) keep   c) well   d) we'll e) winning

7. As time passed, things seemed to get worse.

   a) as   b) passed   c) things   d) seemed   e) get

8. By the time i arrived at the café, all of my friends were waiting for me.

   a) cafe   b) all   c) friends   d) waiting   e) for

9. Can you wait with me until the bus leaves?

   a) can   b) wait   c) until   d) (null)   e) bus

10. My parents divorced when ı was six.

   a) my   b) divorced   c) when   d) I   e) (null)

Exercise C: Matching activity 1

1. She started to run when
2. We stopped playing football when
3. They didn´t talk to her until
4. He fell in love with her as soon as
5. You won´t go out until
6. Please post these letters for me when

   A) It began to rain.
   B) He saw her.
   C) You´ve finished your homework.
   D) She saw the big dog.
   E) You go to town center.
   F) She apologized to them.

Exercise C: Matching activity 2

1. I will send you my new adress.
2. When the family came here from russia
3. We first became friends
4. By the time i arrived at the café
5. Paula became pregnant
6. I can pay you back
7. When I arrive home
8. The roof leaks
9. You can go out to play
10. You can come and visit me

    A) When we worked together.
    B) I will phone my parents.
    C) Once i have found somewhere to live
    D) All of my friends were waiting for me.
    E) Whenever you want
    F) Soon after they were married.
    G) As soon as i have the money.
    H) As long as you stay in the backyard.
    I) They were penniless.
    J) Every time it rains.

Exercise D

Choose the correct alternative to complete the sentences with the correct time phrase.

1. I burnt my hand _____ i was cooking dinner.

A) while   c) until

B) as soon as   d) then

2. Mr. Parker sits by the window ____ he eats in that restaurant.

A) since   c) until

B) whenever   d) before

3. My grandfather wants to work in the factory ___ he is 65.

A) as   c) while

B) until   d) since

4. Don´t worry because I´ll call you ____ I get home.

A) as soon as   c) as long as

B) whenever   d) soon.

5. Peter has been keen of fishing ____ he was a kid.

A) before   c) after

B) since   d) when

6. We sheltered in a café ___ the rain has stopped.

A) as   b) while

B) until   d) whenever

7. ___ sue´s brother left school, he started working in a bank.

A) whenever   c) while

B) after   d) as

8. The home team was winning ____ the goalkeeper made a fatal mistake.

A) until   b) after

B) since   c) as long as

Exercise E: cloze test

Complete the following sentences using 'as', 'just as', 'while' and 'as soon as'. Then listen to the sentences and find out which words get the primary stress.

Yesterday, i told ben we have to start planning for our vacation. Ben told me that we could do it a. ___ he got home. I was so excited and prepared a lovely dinner for us.

B. ___ i was cleaning the kitchen, ben did some research on the internet. We have decided to go to england for our summer vacation.

Ben switched off his computer just c. ___ the phone started ringing. It was his boss phoning from south africa. According to his boss, an urgent project came up. I felt like crying d.___ i listened to the conversation. Our vacation plans were ruined.

Exercise F: Sentence completion

1. I'm getting into heathrow early tomorrow morning. I'll ring you first thing _____i make it into the arrivals hall.
2. Give me your phone number _____you leave tonight.
3. I can hardly wait_____ we see that new film.
4. Please take a seat in the waiting room _____your number is called.
5. _____ the weather is good, i like going for walks in the countryside.
6. Please be careful. I don't know what i'll do_____ you get hurt.
7. _____you complete a line of numbers, you have to shout "bingo".
8. Go home and wait there _____i call.
9. Let's watch some tv _____we go to sleep.
10._____ _____i go to bed, ı brush my teeth every night.

Exercise G: Sentence completion (multiple choice exercise)

Choose the correct alternative to complete the sentences with giving attention to the stressed words and pich patterns. Then listen and check your answers.

1. He is going to get a job when ....

 a) he leaves university.

 b) he went to school.

 c) he studied his lessons.

 d) he used to go to school.

 e) he will leave university.

2. Since we moved here.......................................

 a) we lived together.

 b) it has been one problem after another.

 c) we will come to visit you.

d) we hoped to be happy.

 e) we are going to see you.

3. The rain had already stopped by the time ....

A) i have been there.

B) we will go there.

C) we come home

D) we came home.

E) i want to see you.

4. Every time we get together with old friends,...................

A) we are going to come together.

B) we are not going to listen to you.

C) we wanted you to join us.

D) we finally missed ou a lot.

E) we spend great time together.

5. Until my father came home....................................

A) we will not wait for him.

B) we have had dinner.

C) we didn't have dinner.

D) we will not have dinner.

E) we cannot have dinner.

6. I saw peter as...

A) i was getting off the bus.

B) i will come home.

C) we waited at home.

D) we will come to see you.

E) we have been waiting for you.

7. I visit my grandmother when...................................

A) i will see them.

B) i had some time.

C) i had had some time.

D) i have got time.

E) i am going to get there.

8. When the meal was finished....................................

A) rachel will wash the dishes.

B) rachel washed up and made coffee.

C) we will clean the house.

D) we have had some coffee.

E) rachel has been washing the dishes.

9. I will phone you again when..........................

A) we came home.

B) i will come home.

C) we used to get home.

D) i saw her.

E) i get home.

10. I can visit her more often as long as........................

A) I had seen her.

B) I have got a car.

C) I will come to see her.

D) I had a car.

E) O had had a car.

Exercise H

Listen to the following time adverbials and find out if the pitch patterns used (falling, rising etc.) are correct or not.

1. As soon as she entered the room, she knew there was something wrong.

      correct   incorrect

2. You have to pass a test before you can get a license.

      correct   incorrect

3. After you had called the police, what did you do?

      correct   incorrect

4. She couldn't drive away until eric got into the car.

      correct   incorrect

5. Until my father came home, we didn't have dinner.

      correct   incorrect

Exercise I: Sentence combination

Combıne the sentences with using the appropriate time adverbials. Practice the correct intonation and stress patterns. Then listen and check.

1. (when) I will buy a new car. I will get my end of the year bonus.
2. (while) Elizabeth was writing a note to her friend. The train arrived.
3. (until) We won't be able to get soda. The machine will be repaired.
4. (by the time) Tina finished practicing her scales. Her sister finished making dinner.
5. (before) Diana bought a new computer. She asked her friends for advice and looked at many different kinds of computers.
6. (sınce) She started taking piano lessons. Jennifer has been very busy.
7. (whenever) It rains. I forget my umbrella.

APPENDIX 5. ORIGINALITY REPORT

<div align="center">

CIRRICULUM VITAE

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PERSONAL INFORMATION

Surname, Name	Karaazmak, Fulda
Place of Birth	Germany
Date of Birth	19.02.1990

EDUCATIONAL BACKGROUND

High School	Edirne Anatolian Teacher Training High School	2004-2008
Undergraduate	Middle East Technical University, Faculty of Education, Department of Foreign Language Education	2008-2012
MA Degree	Hacettepe University	2012-2015

WORK EXPERIENCE

ÇANKAYA UNIVERSITY- English Preparatory School (2013-……..)

İletişim

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Jury Date	19.06.2015