THE IMPACT OF PHONETIC TRAINING COURSE ON PRONUNCIATION PERFORMANCE OF KURDISH EFL UNIVERSITY STUDENTS

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Abstract

The aim of this experimental study is to examine the impact of a phonetic training course on Kurdish EFL student's pronunciation performance. To accomplish the effectiveness of phonetic training, 100 Kurdish EFL students from the first grade of English department /Salahaddin University (SU) participated in this study. The participants were assigned arbitrarily into two groups, experimental and control. A Key English Test (KET) was administered to them to determine their pronunciation proficiency level. After the pre-test, the experimental group (n=50) received successive phonetic training sessions for sixteen weeks, While the control group (n=50) took their regular class. These phonetic sessions were given three hours a week. Both groups were given a post-test at the end of the course. For analyzing the obtained data, the Statistical Package for Social Science (SPSS) was used. The quantitative data were analyzed

via calculating the weighted mean, its standard deviation, and percentile of weight.

The results indicated that using phonetic training improved Kurdish EFL students' English pronunciation, and the experimental group participants were found to have a better performance than the control group.

أثر دورة التدريب اللفظي على تلفظ طلاب الكورد للغة الإنجليزية في المرحلة الجامعية

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الملخص :

الغرض من هذا البحث التجريبي هو تحسين تلفظ الطلاب من خلال دورة تدريبية تلفظية دقيقة. لاجل التحقيق في فعالية التدريب التلفظي تم تعيين 100 طلب وطالبة في قسم اللغة الإنجليزية بكلية التربية الاساسية في جامعة صلاح الدين (SU) ثم توزيعهم الى مجموعتين: التجريبية والضابطة. لضمان تجانس المشاركين من حيث إجادة التلفظ ، تم إجراء اختبار اللغة الإنجليزية التمهيدية (KET) لهم ؛ وقد تبين من النتائج انهم في المستوى المتوسط . تم اخذ اختبار القبلي والاختبار البعدي. تلقى المشاركون في المجموعة التجريبية دورة تدريبية لفظية متتابعة لمدة ستة عشر أسبوعًا ، ولكن المجموعة الضابطة لم تتلق أية تدريب. وقد تم تحليل البيانات عن طريق الإحصاء الوصفي والانحراف المعياري واختبار ANOVA. وأشارت النتيجائج أن استخدام التدريب اللفظي لتحسين التلفظ طلاب الكورد للغة الإنجليزية في المرحلة الجامعية . وقد كشفت نتائج الاختبارات ان المجموعة التجريبية قد حققت تقدما أكثر من المجموعة الضابطة عن طريق التدريب اللفظي.

1.1 Introduction

According to Gilakjani, (2012) intelligible pronunciation is one of the basic requirements for language proficiency because a good pronunciation helps EFL learners to acquire English faster, whereas, the lack of a proper pronunciation poses great difficulties in language learning. It can negatively affect learners' understandability. More precisely, poor pronunciation can decrease learners' self-confidence and self–abilities. In spite of this, many EFL learners still have pronunciation deficiency.

Littlewood (2002) believes that the main factors of EFL students mispronunciation originate from the effect of the

students' first language into the foreign one, or form the complexities and irregularities of the target language itself. Besides, Pronunciation is regarded as one of the unfavorable topics for teachers to teach in the EFL classes. De Juana Malaina (2014:7) outlines that " many EFL teachers do not feel confident enough to teach pronunciation since they themselves feel that they have not received enough training to do so at university and perceive pronunciation learning at a time consuming activity both for the students and themselves". For this reason, the non- native pronunciation teachers are supposed to be well- qualified to accomplish their pronunciation teaching effectively. (Fraser, 2000).

The lack of mutual agreement among applied linguists in defining one productive approach for teaching pronunciation is a strong determining factor influencing pronunciation learning. In other words, the problem most of the EFL students face in learning English pronunciation might be attributed to the lack of an adequate teaching strategy and a practical pronunciation course book that suits their needs and interests (Derwing & Munro, 2005). According to Hismanoğlu & Hismanoğlu (2010) curricula, methodology and the lack of appropriate materials are among the aspects that cause problems to the teaching and learning pronunciation in EFL classes. Gilbert (2010:3) believes that "there must be major changes in teacher training, materials available, appropriate supporting research and changes in curricula".

According Harmer (2001 as cited in Gilakjani, 2016) pronunciation training is not used only to assist, learners to produce different sounds or to recognize the sound features of the target language, but it is applied to assist them to develop their speaking skill, raising their pronunciation awareness and enhance their comprehensibility and intelligibility. Saito (2007) states that an intensive phonetic training course would help EFL students to be more careful about their pronunciations, as they do not have enough practice or exposure to real-life communication with native speakers of English. Consequently, a considerable number of studies focus on the implementation of

phonetic training courses in the pronunciation classes to develop EFL students' pronunciation proficiency.

This study is part of the researcher's ongoing doctoral study. It is implemented to fulfill common problems confront Kurdish EFL students in the pronunciation classes by applying phonetic training strategy. The researcher, hence, tries to investigate the effects of the sixteen-week phonetic training sessions on the Kurdish EFL university students' pronunciation performance. This treatment course aims to help Kurdish students gain some basic theoretical knowledge of English phonetics and develop their skills in pronunciation through a variety of practical classroom activities.

1.2.1 Factors Affecting the Pronunciation of Kurdish EFL University Students.

In the pronunciation learning process, learners may be influenced by a number of factors which go beyond the recognition of phonetic symbols and rules. Among these factors, learners' native language, orthographic interference, consonant and vowel quality, target language complexity, the amount of exposure, utilizing improper teaching methods and the lack of motivation, etc. Many studies have tried to investigate the nature of the errors and pointed out that the most appropriate way to find out these errors would be by looking at the real performance of the EFL learners. Farhady& Delshad (2007:) state that the group of errors which occur in EFL learners' pronunciation performance are due to the interference from the mother tongue is called interlingual errors. However, there is another group of errors, which is attributed to the complexity and irregularity of the target language itself. Pennington and Richards (1986:219) assert that "in order to make pronunciation teaching and learning more effective, it is necessary to reduce these affecting factors as much as possible."

In a number of studies carried out by (Jubrail, 1993; Karimi, 1996; Rezvani & Asadpour, 2005; Farhady& Delshad, 2007; Fattah, 2010; Rahimpour, 2010; Othman, 2011, 2013; Asadpour& Mohammadi, 2014; Hamad, 2014, 2015;) both

interlingual and intralingual errors are observed in the performance of the most Kurdish EFL learners. The next subsections highlight some of the important factors that affect Kurdish learners during learning English pronunciation.

1.2.2 Interlingual Transfer

As it is mentioned above interlingual errors account for the errors that exist due to the interference between learners' first language and the target language's pronunciation (Cruichshank, Jenkins & Metcalf, 2012). Many studies have demonstrated that the learner's first language influences the pronunciation of the target language. Kurdish EFL students, like other foreign language learners, have the problem of native language interference. English orthography is another prominent factor that causes problems for Kurdish EFL students (Farhady& Delshad, 2007). Although, the English language has twenty-six letters representing forty four sounds of the spoken language, but most of the English phonemes are represented in different ways (Roach, 2000). While Kurdish is "a phonetic language", as McCarus (1992:98) calls it and it has a regular orthography. Each phoneme, in Kurdish, is represented by one single letter, i.e., all the Kurdish phonemes are represented by full letter, except for /ɪ/, which is not represented at all (McCarus, 1992 as cited in (Rahimpour, 2012:77). The central diphthong [œ]→/wɜ:/ this sound is treated as a Kurdish diphthong, when occur in the middle position, i.e, between two consonants, as in: *xwenn* (blood) → [khœn] and *kwêr* (blind) → [kœr], but in the initial and final position, it is replaced by other sounds, semi-vowel w + *ê*, as in *wẹne* (picture) → [wêna], *xwê* (salt) → [khwê] (Fattah, 2010: 46).

The Kurdish conventional spelling system is based on Arabic script diacritic, marks and dots are used to represent consonants and vowels not found in Arabic (McCarus, 1992 as cited in Rahimpour, 2012). Therefore, it can be said that most of the Kurdish EFL students' problems are simply due to an irregular conventional spelling system of English which offers such poor guidance as to its pronunciation.

Othman (2011) explains that sounds such as /ð, θ, ŋ, əʊ, ʌ, eə, ə/ are not easily articulated by Kurdish EFL students because of their absence in their mother tongue. Words such as: *mother*, *think* are pronounced as [mazar] and [sink] instead of */ mʌ ðə /* and /θɪŋk/. Sounds like / r, dʒ, ʃ, ʧ/ sometimes become a problematic source for Kurdish EFL students. Those sounds exist in the Kurdish language, but their place of articulation and the manner of articulation are quite different comparing with their peer in English language. For example, during the production of the English palatal, voiced, retroflex /r/, tongue takes a curved shape with the tip curls back behind the alveolar ridge, the front is low and the back is rather high and the lips are rather rounded (O'Connor, 1980). Rahimpour (2012: 75-76) recognizes two Kurdish "retroflex sounds: [r, ř] those phonemes are produced with different tongue and lip position. He claims "the sounds [r, ř] have alveolar and alveo-palatal articulation respectively, and both are voiced. [r] is flap (tap): it is produced by making a single tap of the tongue. [ř] is trill (roll): when it is produced by a series of taps by the tongue." the dissimilarities between English and Kurdish /r/ phoneme, sometimes, cause problems for Kurdish EFL students.

The sound [ʃ] is an alveolar sound in Kurdish, but in English the sound / ʃ/ is palatal and it is produced with a rounded lip position. So, Kurdish EFL students mispronounce the above sounds because of the habitual use of the first language.

English Vowels are considered as a significant source of mispronunciation for Kurdish EFL students since the vowels, in Kurdish, have different quality, quantity, and distribution. For this reason, Kurdish students are unable to produce English vowels correctly. For example, recognizing some long vowels like, /ɔ:, ɜ:, and u: / are problematic for the Kurdish EFL students. They are unable to differentiate between the English long vowels /ɔ:, ɜ:, and u: / and the short Kurdish vowels / o, ê, and ʊ/. And despite the frequent occurrence of English vowels / ə/, /ʌ/, and the front open vowel /æ/, most of the Kurdish EFL students tend to replace those vowels by the central, neutral vowel /a/, which is found in Kurdish alphabets, and sometimes

they pronounce/ o/ instead of / ʌ/. Furthermore, most of the Kurdish students pronounce the English diphthong / əʊ/ as / ɔ: / since the above vowels are not present in Kurdish language. (Karimi, 1996; Rezvani & Asadpour,2005; Othman,2011-2013)

There are some other orthographic problems faced by Kurdish EFL students, which can be attributed to the silent letters. Kurdish learners of English as a foreign language have difficulties in recognizing the silent letters in different words, as this phenomenon rarely occurs in Kurdish language. Likewise, words like debt > /dɛt/ and *island* > /aɪland/ are pronounced as /dɛbt/ and /aisland/. The letter <u>b</u> in the final position of 'thumb' /θʌm/ is pronounced as / θumb/ by Kurdish learners of English. (Othman, 2011)

For many Kurdish EFL students, the misplaced stressed syllable is a remarkable problem. Any English word consists of more than one syllable, only one syllable is pronounced with stress. There is no clear rule demonstrates stress usage. Whereas in Kurdish language, The stress is used either to change the meaning or a change in its grammatical status of the word. For instance, in the word ***jwani(v)*** > [ʤwanɪ] when the stress is on its first syllable, the word means *you are beautiful*, but when the stress shift to the second syllable *jwa**ni (adj)***, > [ʤwanɪɪ] the meaning is changed into *beauty* and the grammatical state of the word is also changed from verb to adjective (Jubrail, 1993). For this reason, Kurdish EFL students tend to use English stress in the same way the Kurdih stress is used.

Another factor that distinguishes the Kurdish language from English language is the syllable structure. Rahimpour (2010) asserted that Kurdish is known as a "syllable-timed" language while English as a stress-timed language. According, Kurdish EFL students, who are not aware of this significant feature, usually pronounce the stresses and unstressed syllables on equal amounts of time as they do in their Kurdish speech. Likewise, it is necessary for the Kurdish EFL students to concentrate on the importance of stress-timing of English to acquire an intelligible pronunciation, because Kurdish EFL students will not achieve

pronunciation intelligibility if they convey the syllable- timing rule of their native language into English.

In sum, research on pronunciation emphasizes that there are many problematic areas arise in the teaching of English pronunciation to EFL students. These factors may be changeable or unchangeable, and may be internal or external. So, these problems can be ascribed to the nature of both languages.

1.2.3 Intralingual Transfer

Contrary to the interlingual errors, there is another type of errors which are not due to the differences between the two languages. These errors are called 'intra-lingual' errors. Thus, intra-lingual errors occur in the performance of the most non-native English learners because of, as mentioned previously, the complexity and irregularity of the target language itself. (Cruichshank, Jenkins& Metcal, 2012)

A other prominent problem faced by the EFL students in general and the Kurdish EFL students in particular, is attributed to the inconsistency of English vowels. The letter o, for example, represents different vowels in different positions as in, *open* > / əʊpn/, *composer* > /kəmpəʊzə/, *olive* > /ɒlɪv/, and in *love* > /lʌv/. This mismatch between the sounds and letter causes many problems to Kurdish EFL students. As a result, most of the Kurdish EFL students tend to pronounce the different sounds which are represented by the same letter in the same way. The letter u in different words; for instance, in words like, *cup, put, bulk*, is pronounced as as /ʊ/. Likewise, Kurdish EFL students tend to pronounce words inculding oo (e.g., moon, flood) with the long vowel /u: /. They pronounce the ea in words like: *meant, leather, weather,* and the past tense form of the verb *read* , always as long vowel /i:/ (Othman, 2011). On the other hand, most of Kurdish learners of English are unable to recognize short vowels from the long vowels, e.g. the words *sheep, ship*, are pronounced as /ʃɪp/, the words *hat'* and *hart* are pronounced with the short vowel /a/. Although there is a long vowel/ ɔ: / in Kurdish, Kurdish EFL students tend to use short /ɔ/ instead of long/ ɔ: /as in the English words *pot* and *port*.

Although the Kurdish hidden vowel /ɨ/ is almost similar to the English vowel /ə/, however, most Kurdish EFL students are unable to recognize the vowel /ə/ when pronouncing English words include this vowel. They usually substitute this vowel in words like, *ago, above, about, arrived,* with the back, open vowel /a/. The majority of Kurdish EFL students substitute the vowel /ə/ by the vowel /o/when the vowel /ə/ occurs in pre-tonic positions", as in: *locomotive, computer,* and *composer.* In addition, In addition, the English vowel / ɔ/ is reduced to /ə/ in unstressed syllables in English, while in Kurdish there is no reduction. So they tend to pronounce such English vowels without reduction.

The pronunciation of diphthongs and Triphthongs is another point the majority of Kurdish EFL university students have problems with. Rahimpour (2011: 80) states "Since Kurdish diphthongs are vowels followed by glides, it is true to say that diphthongs are not present in Kurdish". By contrast, English has eight diphthongs. For this reason, Kurdish EFL mispronounce English diphthongs. They normally pronounce only the first vowel instead of a diphthong (Rezvani& Asadpour, 2005).

Furthermore, Triphthongs (three vowel sequences) have no place in the Kurdish sound system but they exist in English. Hence, it is rather difficult for Kurdish EFL students to recognize and produce those sounds accurately, rapidly and without interruption. This is why most of Kurdish EFL students cannot pronounce words like: *pure, poor', mutual, lower, owl* correctly or without interruption

One of the factors that has a notable effect on Kurdish EFL students' pronunciation is English consonant cluster complexity. The syllable system of both Kurdish and English are that of the peak type which means that the number of the syllables are usually determined by the number of vowels in a single word. Rahimpour (2012: 76) notes that the "the syllable structure of Kurdish can be represented as **(C) CV (C) (C)"**. This means that Kurdish initial and final consonant clusters permit only two consonants. Hamad (2014*)* published an article attempting to identify problems faced by Kurdish learners of English. She

reported that Kurdish speakers have difficulties with consonant clusters, especially with words include more than two consonants in the initial position, because Kurdish syllable structure permits only clusters of two consonants finally and two consonants initially. To avoid long consonant clustlers' pronunciation, Kurdish EFL students usually insert a weak vowel which is known as hidden vowel [bizroka] between the sequences of consonant, for instance, they pronounce the final consonant *washed* /woʃt/ as / woʃíd/, *twelfth* /twɛlfθ/ as /twɛlfíθ/ and they pronounce the word *gardens* as /gardníz/ instead of /gɑ:dnz/, and the word *asked* /ɑ:skt/, is pronounced by the Kurdish learner as /ɑ:skíd/, etc. On the other hand, this insertion of the hidden vowel can be attributed back to students' attempt to facilitate the difficult pronunciation of consonant clusters, as this type of consonant clusters is common in English, but it is not familiar to the Kurdish EFL students at all.

3. Methodology
3.1 Participants

A total of 100 Kurdish learners took part in this study. All the participants were first year students in the English Department, college of basic education at Salahaddin University-Erbil during the academic year 2016-2017.The range of their age was between 18-19. They were randomly allotted to one of two groups: experimental or control, each group consists of 50 students. Only the experimental group went through a sixteen-week phonetic training period.

3.2 The Description of Phonetic Training course

As aforesaid, the subjects in the experimental group participated in sixteen week training sessions. This training course specifically covers the sound articulation and distributional properties of English segmental and supra-segmental features. The training sessions are held twice a week and each lesson lasted 50 minutes. The training sessions focus particularly on the sounds Kurdish EFL students have problems with. This course is meant to familiarize Kurdish EFL university

students with the basics of English phonetics and to help Kurdish EFL students to develop their skills in pronunciation through a variety of practical classroom activities. The course embodies the English phonetics syllabus, which is generally taught in the 1st year of the English departments at the university level. It provides information on the English sound system and deals specifically with some specific problems faced by Kurdish EFL university students. This course focuses on segmental phonetics (articulatory apparatus, the characteristics and classification of vowels and consonants, the International Phonetic Alphabet and its use in phonetic transcription) and supra-segmental features and aspects of connected speech, particularly the use of stress (word and sentence stress), recognizing weak forms, assimilation, elision, and linking.

This course consists of nine chapters that are adapted from 'Teaching Pronunciation: A Course Book and Reference Guide', second edition, by Celce-Murcia, Brinton, Goodwin, with Griner (2010), to cover the basic elements of English phonetic course and to acquaint Kurdish EFL students with the course requirements. Chapter one serves as an introduction aiming at explaining the fundamental concepts of phonetics, for example, phone, phoneme, allophone, minimal pair, and phonotactics. Chapter two is intended to provide insight into the articulation of human speech sounds with detailed description of various part of the vocal tract. In chapter three, Kurdish EFL students are acquainted with the International Phonetic Alphabet and familiarized them with the development of transcription skills. Chapters four and five are concerned with the description and classification of English segmental phoneme. In chapter fours English consonants are presented, and in chapter five English vowels, vowel sequences, diphthongs and Triphthongs are dealt with. Figures and diagrams are included whenever they help to illustrate a point.
 Chapter six discusses the notion of syllable and syllable structure as well as phonotactics. In chapter seven, stress placement is discussed with reference to simple and complex stress patterns in complex and compound words. Strong versus

weak pronunciation of the function words is presented under the influence of sentence stress in chapter eight. Chapter nine expanded to include other aspect of speech features, such as assimilation, elision, and linking. The final chapter basically worked as a background for further readings on other elements of supra-segmental phonetics, such as tone, intonation and rhythm.

3.3 Study questions
This study will be guided by the following questions:
1. To what extent does Phonetic training enhance Kurdish EFL student's pronunciation performance?
2. To what extent does phonetic training affect experimental groups' achievement in recognizing and producing segmental and supra-segmental features?

2.4 Aims
The present study aims at:
1. Assessing the impact of phonetic training sessions on Kurdish EFL students' pronunciation performance,
2. Assessing Experimental groups' achievement in recognizing and producing segmental supra-segmental features after subjecting to an intensive training program.

3.5 Hypotheses
   In view of the preceding aims, it is hypothesized that:
1. The Phonetic training is expected to bring about positive changes in Kurdish EFL student' pronunciation performance, and
2. Experimental groups' performance at the recognition level is anticipated to be better   than   at the production level.

3.6 Design of the Study
     The present study employs an experimental design in which, the researcher randomly assigns participants into two different groups: an experimental and a control group. The experimental design is utilized so that the treatments may be

assigned in an organized manner to permit a valid statistical analysis to be carried out on the resulting data.

3.7 Limits

The current research investigation is limited to:

1. First year Kurdish students of the Department of English, College of Basic Education, Salahaddin University-Erbil during the academic year (2016-2017).

2. The course materials utilized in this study are adapted from Celce-Murcia's model of communicative pronunciation teaching (Celce-Murcia, Brinton, & Goodwin, 2011) and Hewings (pronunciation Practice Activites, 2004) with some adjustment according to Kurdish students challenges and needs.

4.1 Results and Discussion

This study is designed to assess the impact of phonetic training sessions on the pronunciation performance of Kurdish EFL university students based on the study's data. Thus, this section presents descriptive and inferential statistics related to these objectives.

The findings are presented in accordance with the research questions. The first research question one is: To what extent does Phonetic training enhance Kurdish EFL student's pronunciation performance**?**

The researcher, in this study, tries to explore the effect of phonetic training on Kurdish EFL university students' pronunciation performance. The pronunciation performance of Kurdish EFL students' in the experimental and control groups is assessed via two pronunciation tests, pre and post. The pronunciation tests are administrated to evaluate the participants' ability to recognize and produce English segmental and suprasegmental features accurately. The test includes four questions, the first three questions examine Kurdish students' pronunciation ability to perceive and produce English segments correctly, whereas the fourth question is conducted to assess Kurdish EFL students' achievement in recognizing and

producing some aspects of connected speech, namely, stress, weak forms, assimilation, elision and linking.

In order to examine the difference between the pre and post – test results of both groups, the quantitative data are calculated. The scores of the pre- and post-test are analyzed by using statistical program SPSS version 22. The frequency and percentage of responses are displayed with descriptive statistics like Mean, Standard deviation, T-test and P-value, (descriptive statistics on the rater scores were given in detail in Table 1). The results of pre and post -test of the two groups arecompared with each other in order to test the hypotheses of the research.

Table (1) compared Paired Samples Statistics of EXG. And CG

	Type	N	Mean	SD	T-test	P-value	Percentile of weight (%)
Total. Pre	Experimental	50	7.56	3.098	2.368	0.000	18.9
	Control	50	9.28	4.096			23.3
Total. Post	Experimental	50	18.18	5.627	5.986	0.02	56.9
	Control	50	11.96	4.725			29.5

The findings of the study prove that there are statistically significant differences between the EXG and the CG. The mean score of the experimental group in the pre-test, (7.56 with a standard deviation of 3.098,) is lower than that of the control group which is 9.28, (with a standard deviation of 4.103). Based on the data, Kurdish EFL students' pronunciation background knowledge of the CG was greater than the EXG' pronunciation knowledge before participation in the Phonetic training sessions. Thus, it is concluded that the random classification of the EXG and the CG is reasonable and effective.

Whereas, the analysis of the post-test results show a noticeable change in the experimental group achievements, after getting an intensive phonetic treatment. The participants in the

EXG score higher results, in the post–test, in contrast to the participants in the control group. The weighted mean of the experimental group has risen to 18,18 (with a standard deviation of 5.627). Moreover, the results indicate that there is some progress in the CG post- test results due to 16-week period of regular English classes (M=11.96, SD of 4.721, P< 0.05), but it is not as significant as the progress achieved by EXG participants. The fact that the CG students, improved their pronunciation skills may be attributed to the efforts exerted by the pronunciation instructor, to rise the pronunciation level of the students.

Judging by the above table, there are differences between the mean scores of the EXG s' achievements in the pre and post test. The mean score of the EXG' achievements in the pre test is (7.56) with a standard deviation of (3.098) while the mean score of the post- test achievement is (18.18) with a standard deviation of (5.627).

In order to test whether the difference is significant or not, a t-test for independent samples is run. The results obtained from the pronunciation tests show that there is a significant difference between the pronunciation achievement, after the 16 weeks of training sessions, due to the method of assessment at α =0.05 (T= 5.986, P= 0.020), then the findings show that the mean of the EXG, in the post -test is higher than their mean scores in the pre –test group; i.e., the post test results are better than the pre-test results

The following figures illustrate experimental group' performance in the tests. They show that the pronunciation performance level of the Experimental group participants' increased significantly at the end of the phonetic training course.
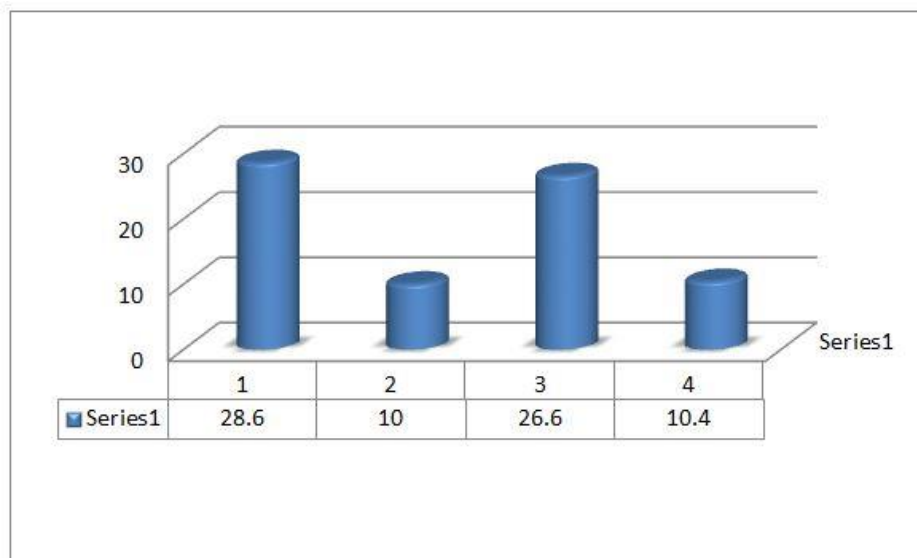
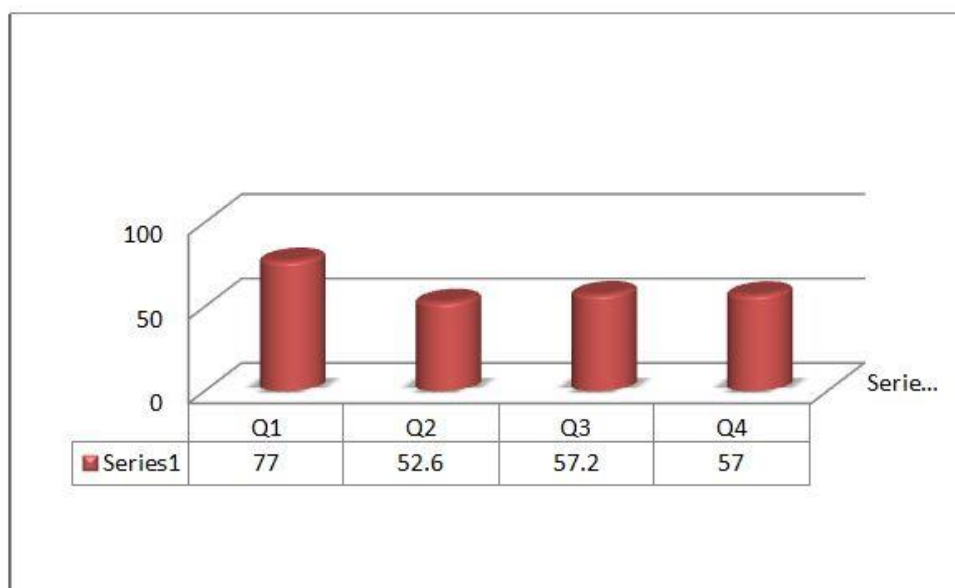**Figure (1) Experimental groups' correct responses in the pre- test**

Figure (2) Experimental groups' correct responses in the post- test

Figure (1) reveals that experimental's responses in the pre-test is weak, especially in the second and fourth questions. The percentage of the correct responses' in the first question, is 28.6%, in the second question is 10%, in the third question is 26.6%, and the fourth question is 10.6%. Whereas, as it is clear in the figure (2), there is a significant progress in the experimental groups' correct answer's rate in the post- test. The percentage of the correct responses in the first question has

risen to 77% in the post test, in the second question has risen to 52.6, in the third question has risen to 57.2% and in the fourth question has risen to 57%. Besides The total percentage of the experimental groups' correct responses has risen from 18.9. Percent to 59.6 percent.

Table (2) Paired Samples Statistics of the Fourth Question

Paired Samples Statistics		Mean	DS	T-test	DF	Sig
Pair 1	Stress.pre	0.4	0.495	8.957	49	0.000
	Stress.post	1.18	0.523			
Pair 2	Weak form. Pre	0.4	0.495	11.513	49	0.000
	Weak form. Post	1.54	0.503			
Pair 3	Assimilation. Pre	0.14	0.351	5.996	49	0.000
	Assimilation. Post	0.16	0.606			
Pair 4	Elision. Pre	0.04	0.198	5.292	49	0.000
	Elision. Post	0.44	0.501			
Pair 5	Linking. Pre	0.06	0.24	4.667	49	0.000
	Linking. Post	0.46	0.579			
Pair 6	Total. Pre	1.04	1.087	15.892	49	0.000
	Total. Post	4.26	1.688			

The table above helps to answer the second research question which is; To what extent does phonetic training significantly affect Kurdish EFL students' achievement in recognizing and producing the supra segmental features?

As it is mentioned earlier, the fourth question was conducted, to measure participants' ability to identify aspects of the connected speech (supra-segmental features) accurately. To confirm this goal, the scores of the pre- and post- tests are compared. The results reveal that EXG ability to discern and use the aspects of connected are improved after the training for sixteen weeks. Also, the results denote that there is a significant

statistical difference between the pre and post tests mean scores in. The mean rank of the accurate predictions of stress pronunciation in the pre-test is M=0.4 (with a standard deviation of 0.49), whilst it has risen positively to (M=1.18, SD=0.523) in the post- test. The results of the EXG' response show that EXG' ability to identify the weak form pronunciation has been improved in post –test via the phonetic training program and their overall means differ significantly; i.e., the mean rank has risen from (M=0.4, SD=0.495) to (M=1.5, SD=0.503) in the post-test. EXG participants' uses of the assimilation, in pre-test is (M=0.14, SD=351) then it has risen to (M=0.16, SD= 0.606) in the post test. Their mean rank of utilizing elision in their speech, has positively increased from (M=0.04, SD= 198) to (M=0.44, SD= 0.501). Finally, the mean score of EXG' achievements in distinguishing linking is (M=1.04, SD= 1.087) in the pre- test and then changed to (M=4.26, SD=1.688) in the post test. The estimate of these covariance parameters is significant   due to the method of assessment at α < 0.005 (DF = 49, T= 40.847, and p=0.000). The post-test results indicate that EXG' test scores increased significantly, after the training course. The post-test results also show that the phonetic training which has a positive effect on the experimental group' progress in Kurdish EFL university students' pronunciation accuracy.

   Furthermore, Two-way analysis of variance (ANOVA) has been employed to examine the differences among the means of EXG post-test scores, to find out which feature among the five prosodic feature has gotten a highly developed mean, and which feature is the most difficult one for the Kurdish EFL students.
 The pos-test results show that the two features, namely, elision (M=0.44, M=) then linking (M=0.46) are evaluated as the most difficult aspects of speech according to the most of Kurdish EL university students. Likewise, when looking at the results presented above, it is proved that words, phrases and sentences in the pronunciation test, pronounced with stress (M= 1.18) and weak form (M=1.54) are less problematic for Kurdish EFL students.

The factors that may contribute to the slight improvement in the elision and linking are:

1. The short period of time between the pre & post-tests. Also the lack of frequency of practice with elision and linking in the training course can decrease the effects of the treatment course. Although the Kurdish EFL university students know where these two aspects occur, but they need a lot of attention and long-term practice sessions to utter the words that are enunciated with elision and linking.

2. Kurdish EFL university student's ignorance of the rule. The Kurdish EFL university students' weakness in using elision and linking can be attributed to their ignorance of the rules that enable them to use those aspects of speech accurately.

To test the second hypothesis of the study and to find out the level of significance between the two groups' (experimental and control) achievements in recognizing and producing aspects of connected speech, two-way ANOVA was applied. See tables (2,3 and 4).

Table (3) ANOVA Statistical analysis of the fourth question in the pre-test

	N	Mean	SD	T-test
Stress. Pre	50	0.40	0.495	
Weak form. Pre	50	0.40	0.495	
Assimilation. Pre	50	0.14	0.351	11.320^{**} **Sig. (0.000)**
Elision.pre	50	0.04	0.198	
Linking. Pre	50	0.06	0.240	
Total	250	0.21	0.407	

Table (4) ANOVA Statistical analysis of the fourth question in the post-test

	N	Mean	SD	T-test
Stress. Post	50	1.18	.523	
Weak form. Post	50	1.54	0.503	
Assimilation. Post	50	0.60	0.606	**40.847**[**] **Sig.(0.000)**
Elision. Post	50	0.44	0.501	
Linking. Pre	50	0.46	0.579	
Total	250	0.84	0.697	

The results obtained from the two way ANOVA reveals that the phonetic training program in pronunciation classes improves students' abilities to recognize and produce English segmental and supra-segmental features more accurately, since The mean score ,t-test and p-value of the post-test of students' achievements in the experimental group are (M= 0.85; with SD=0.697; T-test= 40.847; p= 0.000≤ 0.005). See more detail in the tables (3-4)

Finally, The results of the statistical calculation prove that there is statistically significant difference in experimental groups ' total performance in the term of their recognition and production levels in the pre and post test. The means of the experimental groups for the recognition level in the pre-test (M= 5.52, SD= 2.121) and in the post-test (M= 9.56, SD=2.915) due to the method of assessment at $\alpha < 0.005$(T = 2.565,P= 0.013) are higher than that for production level in the pre-test (M=2.04, SD=1.737) and post-test (M=8.62, SD=3.269) due to the method of assessment at $\alpha < 0.005$ (T= 13.583, P= 0.000). This means that Kurdish EFL university students, in the EXG, can recognize the correct pronunciation of the English segmental and supra-segmental features easier than producing them. Table (6) summarizes the participants' performance of the recognition and production levels in the post -test .

Table (5) EXG and CG Groups Descriptive Statistics

	Type	N	Mean	SD	T-test	P-value	Accuracy account
Recognition. Pre	Experimental	50	5.52	2.121	3.010	0.003	27.6%
	Control	50	6.92	2.514			34.6%
Production. Pre	Experimental	50	2.04	1.737	0.805	0.423	10.2
	Control	50	2.36	2.211			12.0%
Recognition. Post	Experimental	50	9.56	2.915	2.808	0.005	65.1
	Control	50	6.06	2.402			39.6
Production. Post	Experimental	50	8.62	3.269	7.830	0.000	54.8%
	Control	50	3.9	2.735			19.5

Table (6)
Subjects' achievement at the recognition level and production level in the post- test in the experimental group

Test level comparison	Mean	N	SD	T-test	P-value	Accuracy account
Recognition. Post-test .ExG	9.56	50	2.91	2.565	0.013	65.1
Production. Post-test. ExG	8.62	50	3.27			54.8
Total. Post-test. ExG	18.18	50	5.63	13.582	0.000	56.9

4.2 Conclusion and Recommendations

The findings of the study reveal that there is a significant difference between the control and experimental groups in their pronunciation performance and the developments in experimental pronunciation performance is due to the use of phonetic training sessions. In other words, participants in the

experimental group who received phonetic training course are better in producing English segmental and suprasegmental features than the control group who received a regular pronunciation class. The findings also reveal that the comprehensive phonetic training can be highly beneficial for enhancing students' performance both in terms of recognition and production, since the implementation of the phonetic training program in pronunciation classes improves students' abilities to recognize and produce English segmental and supra-segmental features easily. In light of the findings of the study, it is recommended that more emphasis should be paid to using the phonetic training program in teaching pronunciation classes, since it can be used as an effective method for enhancing intelligible pronunciation.

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