Computer Assisted Pronunciation Teaching (CAPT) and Pedagogy: Improving EFL Learners' Pronunciation Using *Clear Pronunciation 2* Software

Hooshang Khoshsima

Associate Professor, Chabahar Maritime University

khoshsima@cmu.ac.ir

Amin Saed

Lecturer, Chabahar Maritime University

amin.saed@cmu.ac.ir

Saeid Moradi

M.A. Student, Chabahar Maritime University

moradisaeed93@gmail.com

Abstract

This study examined the impact of *Clear Pronunciation 2* software on teaching English suprasegmental features, focusing on stress, rhythm and intonation. In particular, the software covers five topics in relation to suprasegmental features including consonant cluster, word stress, connected speech, sentence stress and intonation. Seven Iranian EFL learners participated in this study. The study lasted for six weeks and both the teacher and the software were involved in teaching suprasegmental features. To measure the learners' pronunciation and their degree of progress for both pre-test and post-test, the software itself was used. The software has the ability to generate report and score on learners' performance at the end of any activity. So, the analysis of learners' performance was based on the software reports on their performance. The results of the study showed that the learners had a significant level of progress in all aspects of suprasegmental features. They learned suprasegmental features effectively and the exercises of the software were helpful for them. The results provide empirical evidences on the value of using *Clear Pronunciation 2* software for teaching English pronunciation. This software and the methodology used in this study yield promising results for the field of language teaching and can provide inspiring results in future.

1. Introduction

Pronunciation is no longer a neglected part of language learning courses and all who work in this field realize "its essential roles in oral communication, listener's perception and speaker's identity" (Liu, 2008, p. 9). Maybe it seems too strange, but if we have a precise look at the roles of pronunciation we see the large effects of it on many aspects of our life. It has many central roles both in our personal and social life. The roles such as promoting our social status and rhetoric, power of words and covering of our lacks and weaknesses. As individuals, we create our personality via our speaking and show our dependence to a social group in a society. Pronunciation as an important aspect of speaking ability can influence social status of speakers, especially non-natives, in ESL context. Good and excellent pronunciation creates a strong sense of identity for learner in the community of target language, but poor pronunciation leads to the loss of identity. As Arslan (2013) concluded "in non-native EFL settings, poor pronunciation skills may result in failure in spoken communication" (p. 191).

Most of the today's debates in teaching pronunciation are on 'intelligibility principle' in pronunciation. Intelligibility is defined as how much the speaker speech is understandable and comprehensible by the listener. It is in contrast with 'nativeness principle' which is defined as the degree of similarity or differences between NNSs accent with NSs accent. In other words, intelligibility focuses on understandability of our speech, but nativeness focuses on the degree of similarity of NNSs accent with NSs accent. The more intelligible the pronunciation of the speaker is, the more comprehensible and understandable it is for the listeners. That is why many scholars in recent years take granted intelligibility of pronunciation instead of nativeness, native/like pronunciation, in teaching English pronunciation. Thus, in pronunciation teaching classrooms,

intelligibility of learner speech is considered as a key element in making a communication more meaningful and successful. However, focusing more on intelligibility in pronunciation does not discount the importance of nativeness, and what is important is that nativeness should be regarded as the main tool in acquiring intelligibility in speech.

Teachers and researchers during recent years have tried to experiment new methods and techniques for teaching of language. Computer Assisted Language Learning (CALL) is one of these remarkable methods which draw the most attentions to itself. Also in line with the growing demands and needs of learners and learners to more effective and updated methods of pronunciation learning in recent years, a new trend has emerged which is known as Computer Assisted Pronunciation Teaching (CAPT). It comes to the scene to help learners to have a more effective way of learning pronunciation rules. Growing interests of learners toward using computers in learning foreign languages such as English language, leads many teachers to use computer as a part of their curriculum. In response to such demands many program designers are trying to design effective programs to help learners in reinforcing their knowledge of pronunciation and helping teachers to have a better teaching pronunciation materials.

However, in spite of recent development in designing CAPT programs, many countries still do not use such technologies for teaching pronunciation in their curriculum. Unfortunately, using computer programs is not yet popular and pervasive for teaching pronunciation in language classroom in Iran (Pirasteh, 2014) and there is a great distance between the degree of using computer programs in classroom and what is expected to use. This happens in a situation where in recent years, we are facing with a large number of research projects done on efficiency of using computer in teaching pronunciation in

Iranian classrooms (Pourkhoni, et al., 2013; Mehrpour, et al., 2016). The schools and institutes could use these projects and try to incorporate them in their pronunciation classrooms.

However, there are some limitations for teaching pronunciation in traditional classrooms in Iran. Although speaking is the main goal of many learners, and pronunciation is an important part of it, teaching pronunciation has no place in Iranian classrooms (Pirasteh, 2014). These may have many reasons such as complexity and difficulty of task of pronunciation teaching especially suprasegmental features of pronunciation and little knowledge of Iranian teacher toward pronunciation components (Abdolmaleki & Mohebi, 2014). Suprasegmental features are those "aspects of pronunciation that affect more than one sound segment, such as stress, intonation, and rhythm or the musical aspects of pronunciation" (Celce-Murcia et al., 1996).

In addition, Iranian learners have little or no access to organized materials and textbooks for learning pronunciation. As Hayati (2010) stated the English textbooks used in Iranian High Schools suffer from shortcomings in the sequence of presentation of materials, text selection, pronunciation exercises, etc. Although in recent years material designers have used a more updated materials in their books, yet because of these shortcomings, teaching pronunciation has no precise place in Iranian classrooms.

Also, there are two variables in teaching pronunciation which create some limitations in Iranian classrooms. These are time or duration of instruction and frequency of instruction. As traditional methodology of language teaching in Iran paid little attention to speaking ability, less time has been dedicated to the teaching pronunciation (Shooshtari, et al., 2013; Rafiee & Purfallah, 2014) and it seems undesirable to expect development in pronunciation of learners. On the other side, by devoting little time to pronunciation instruction, we witness a

decrease in the numbers of practices and activities in classrooms. As a result, it is clear that why most of the Iranian EFL learners shown little improvement in their pronunciation in recent years. For Iranian EFL learners to have an effective communication, learning pronunciation is an important issue. Intelligibility of their speaking depends largely on their pronunciation. Learning English pronunciation helps them improve their proficiency and to be understood by native speakers. Pronunciation learning also reinforce their listening ability and helps them understand native speakers. Maybe one way of encouraging learners for learning pronunciation is the use of computer in teaching pronunciation.

In recent years, field of language teaching especially pronunciation teaching undergone great changes in developing new computer programs for pronunciation teaching. These programs by providing new techniques and authentic environment and materials are trying to help language learners in learning pronunciation. Therefore, in line with the recent developments, in this study we aim to integrate an instructional computer software, *Clear Pronunciation 2*, into the Iranian EFL classroom for teaching pronunciation. It is a suitable software for Intermediate to Advanced learners of English who want to improve the suprasegmental, speech-level aspects of their pronunciation – both receptive and productive. This program helps them recognize and accurately produce word stress, sentence stress, consonant clusters, connected speech and intonation. The focus of our study will be on teaching suprasegmental features of pronunciation. These features have a direct relationship with intelligibly in NNSs speech and learning these features is more useful in countries where English is taught as a foreign language. This study aims to investigate the following question:

Does integration of *Clear Pronunciation 2* software have any significant impact on Iranian intermediate EFL learners' prosodic features?

2. Literature Review

The way that language teaching approaches treated pronunciation instruction has constantly changed in recent years. It has been discounted in some methods and in others; it has been emphasized as the main part of their methods. As Ketabi and Saeb, (2015, p. 182) said, "it has been either elevated to the highest stature by some methods and approaches, such as the Reform Movement, ALM and Oral Approach, or has been assigned the back seat in the language classroom, as has been the case with GTM, the Direct Method, and the Naturalistic Approaches". Instability of position of pronunciation during these years take the great stoke on pronunciation and yet it has no clear and precise methodology in curriculum. These sudden changes toward the pronunciation teaching put the position of pronunciation in danger.

Reviewing the history of pronunciation shows the inadequacy of attention to pronunciation teaching in language teaching fields and by referring to it as "the lost ring of the chain" (Moghaddam, et al., 2012), and "the neglected orphan of second-language acquisition studies" (Deng, et al., 2009) endorsed on its exclusion in language curriculum. This inattention to pronunciation teaching caused it to lag behind other skills. This may be the result of lacking appropriate materials, and methodologies for teaching and learning pronunciation.

2.1. Computer Assisted Language Learning (CALL)

Rapid developments in information technologies have influenced education, and thus they have led to alteration in the structure and implementation of

education (Donmus, 2010). In recent years appeal for using CALL in the process of language learning and teaching increased and many researchers are trying to integrate these technologies into the system of language learning and capture the best and the most effective ways of improving learner's proficiency. Regarding this fact many researchers stressed the importance of CALL and its advantages. CALL uses computer technology as an aid in the presentation, reinforcement, and assessment of material to be learned (Delcloque, 2000). CALL technologies can provide learners with independent and collaborative learning environments; learners can reduce stress and enhance their self-instruction and self-confidence through games and communicative activities (Lai, 2006). As Gorjian et al. (2013, p. 35) said "The philosophy of CALL puts a strange emphasis on student-centered lessons that allow the learners to learn their own using structured and/or unstructured interactive lesson".

By raising teachers and learners' awareness toward advantages of CALL in language learning and advancement in language learning technologies in recent years, the field of language learning sees a growing positive attitude toward using these technologies in classrooms. As Jahromi & Salimi (2013, p. 163) stressed, "Understanding of user (learners and/or teachers) attitudes facilitates the creation of appropriate CALL applications and more fine-grained CALL theories". In their study of Iranian students and teachers attitude toward CALL, they found that both teachers and students have a positive attitude toward using computer in language teaching. In addition, they found that teachers have more competence in computer-related issues. This may be the result of teachers' information about the subjects matter related to their field of language teaching and also their skill in recognizing the different aspects of these technologies which are more effective to be use in the process of language teaching. As an additional example Rafieea, Allahverdi and Purfallah

(2014) conducted a study on the perceptions of Iranian junior high school teachers toward using computer in the process of language learning. The results of the study showed the positive attitude of students toward using CALL in curriculum and they showed a high interest in CALL programs. Other studies in Iran also found the positive attitude of participants toward using computer in improving the quality of instruction (such as Khany & Ghoreyshi, 2013).

2.2. Computer-Assisted Pronunciation Teaching (CAPT)

For teaching pronunciation, there are varieties of different software, which cover all aspects of pronunciation skill. As an important parts of CALL pedagogy, CAPT had a great development other than other skills, and many new programs were devised which aimed to make the task of pronunciation teaching easier. These programs create a new form of context with a number of practices and opportunities for learners in a narrow and small space which is not bounded to the time and presence of instructor. As Thomson & Derwing, (2014) stated "a strong appeal of CAPT is its ability to provide learners with more practice than they can normally access in a traditional program" (p. 336). Using computer in language teaching improve learner autonomy and increase their self-esteem. Therefore, as Neri et al. (2002) stressed "by providing a stress free environment, CAPT encourages learners to practice at their own pace, and access nearly unlimited input". Also as LaRocca, (1994) pointed out "digitized pronunciation software packages afford high-quality sound and video clips of speakers, which gives the learner the opportunity to look at articulatory movements that are used in producing sounds". Thus, by comparing their performance to a model in the program, learners can become aware of their

strengths and weaknesses. Therefore, many researchers and scholars in recent years tried to prove the efficiency of these programs in pronunciation teaching.

For example, Chen (2014) studied the effect of *MyET* software for teaching pronunciation to college students in Taiwan. As *My ET* is an online software in this study students had access to the software both in and out of the classroom. The result of the study revealed that students progressed in their pronunciation and even though in some cases students preferred traditional classroom instruction, the tendency of most of the students toward using software in classroom instruction increased. Also Gorjian et al. (2013) in an attempt in helping Iranian university students to acquire prosodic features of English language such as stress and intonation by using *Praat* software found that the "learners that practiced stress and intonation through CALL approach were more successful than the students who were taught through traditional method" (p. 34). In addition, AbuSeileek (2007) in a study for teaching stress to advance EFL learners of English by using *Mouton Interactive Introduction to Phonetics and Phonology* software found that the students' ability in perceiving and producing correct stress pattern in words, phrases, and sentences improved.

In another study Tanner & Landon (2009) examined the effect of using *Cued Pronunciation Readings (CPRs)* software on intermediate ESL learners of English in US. The study aimed at learning suprasegmental features such as pausing, word stress, and sentence-final intonation. The learners in this study should worked with the software in a self-directed form and the teacher had no interference in their learning. The result of the study showed the significant effects of this software on learners' perceptions of pausing and word stress and controlled production of stress. Also in some cases, researchers did not find any improvement in using CALL in teaching pronunciation. For example Liu

(2008) in his study of examining the effect of *Pronunciation Power 2*, a commercial language learning program, on ESL learners in US found no significant improvement in comparison with traditional instruction of pronunciation. His research was the replication of a study by Seferoğlu (2005) study which has examined the improvement of learners' pronunciation by using of the same software. He found a different result from a same study.

In a study Khoii & Aghabeig (2009) studied the effects of *Rosetta Stone* software on listening comprehension of Iranian EFL learners. The result of their study showed that the students listening comprehension improve after using this software. They mentioned some other advantages of using computer software in teaching pronunciation such as increasing learners' motivation, providing learners with authentic material and environment and reducing learner dependency to the teacher. In another study Luo (2014) used a computer-assisted pronunciation training (CAPT) technique to combine oral reading with peer review to improve pronunciation of Taiwanese English major students. In this study students first given a short passage with the recording of the text had read by a native speaker. After listening and practicing the recordings, the students record their voices and compare them with the native speaker one. Also there was an online discussion board which students shared their recordings and discussed on their classmates' recordings and performance. The result showed the superiority of using this technique in reducing learners' problems in learning pronunciation. Many other studies conducted on the efficiency of using computer software in teaching different aspects of pronunciation. But what is important is that the majority of these studies at the end of their study stressed the important and the efficiency of CALL in teaching pronunciation.

3. Methodology

3.1. Participants

The participants of the study were seven EFL learners at Chabahar Maritime University, Iran. They had various fields of study and had an age range of 18 to 26 years. All of them were non-native speakers of English and based on pre-research interview their English proficiency was about intermediate level. Most of the participants had access to computer and had their own computer and almost all of them use it every day. In this study, most of the participants used computer between 4 to 9 and more than 9 years. Therefore, they had enough proficiency in using computer. This helped researchers to focus more on how to use *Clear Pronunciation 2* software than how to use computer. The participants also asked about their previous experiences of using computer for language learning. Although some of them (only 2 of them) had worked with some commercial programs, such as *Tell Me More*, *Rosetta Stone*, and others experiences were limited to listening and watching of audios and videos in traditional classrooms in institutes.

3.2. Materials

In this study, *Clear Pronunciation 2* software that is commercial language learning software is used. The software teaches English language pronunciation. It is designed for teaching prosodic features of English pronunciation. The features of this software are as follow:

Content: It covers five key suprasegmental element of pronunciation: word stress, consonant clusters, sentence stress, connected speech and intonation. Each units contain five separate topics. Also each topic includes at least five activities, which in sum making a total of 125 exercises. In this software first

teacher introduces each unit through a video and after that each learner works on exercises prepared for learning the topic.

Progress features and printing: The software progress function generate reports on completing any activity with score, time duration, average scores compared with all learners and also relative performance of learners in different units. On completing any activity learners could have a record and printing of activities and their performances.

Dialect version: The students have the options to use three English dialects as: British English, North American English and Australian English.

3.3. Procedure

At first, a TOFLE proficiency test was administered for 34 learners and 7 learners were selected among them. After that, researchers had an interview with selected participants and they were asked about their computer proficiency and their experiences of using computer programs for language learning. Some personal information also was asked from the participants. Also by using *Clear Pronunciation 2* software, a written pre-test was administered to assess their knowledge of pronunciation (prosodic features). This study lasted for six weeks and seven EFL learners participated in this study. They received 6-hour instruction by teacher for three sessions in a week. After instruction by the teacher, they worked with the software and practiced related exercises. They also had access to the software in their own laptops, and this helped them to work with the software whenever and wherever they wanted. In addition, they had access to their teacher in these six weeks and received feedbacks whenever needed. In every session, the teacher checked learners progress and solve their problem with the software.

As mentioned before, the aim of the study was not to replace the software with the classroom instruction, but it was to integrate this software into the natural process of classroom instruction. It means that teachers besides teaching pronunciation with traditional methods of pronunciation teaching use computer software in the process of classroom. So, at the beginning of each session the teacher taught an introduction of what are known as prosodic features of pronunciation, stress, rhythm and intonation to the participants, and after that they worked the exercises provided in the software. The teacher taught these aspects based on the order and sequences of the software. This simultaneous way of teaching both by the teacher and the software helped learners to confirm what they learnt by the teacher. This simultaneous teaching both by teacher and by the software helped learners to learn suprasegmental features more effectively. This also helped to avoid the omission of teacher roles in the process classroom and obtain better results. During this project teacher not only taught required materials to the learners, also gave learners effective feedbacks on their performance and taught them to work with the software and complete the exercises. This pursuit of teacher helped learners to retain and preserve their motivation during the course. The data collected using a written pre-test at the beginning of the study and their progress scores at the end of the study. Both their pre-test and post-test scores were obtained through the software. As mentioned before the software has the ability to generate report on learner performance. So our final assessment of learners' performances was based on scores obtained from the software.

4. Results of the Study

Participants' performances were analyzed based on their scores obtained at end of the course. After teaching each unit by the teacher, learners worked with the

software and practiced related exercises. In the software, first the teacher through video introduces the units. Then units are broken done into five topics. Each topic, in turn, include five activities which in sum make a total of more than 125 exercises. After completing each exercise, the software generate a report of learner performance which shown in percent (%). Preparing final report of learner performance is another advantage of this software, which not only helps teachers in knowing the whole performance of learners, and in each session, but also makes it easy for researchers to analyze the performance of learners. So our analysis of learners performances were based on their scores obtained at the end of the course. The following tables show, in turn, the performance of learners in consonant clusters, word stress, connected speech, sentence stress and intonation were analyzed.

Consonant Clusters

Table 1 shows the performance of learners in consonant clusters. The vertical axis shows the average scores of participants in percent (%) and the horizontal axis shows participants name by (S). The consonant clusters contain 5 topics which are as follow: *1. Consonant sounds 2. Clusters at the start of a word 3. Clusters starting with /s/ 4. Clusters at the end of a word 5.Consonant clusters and grammar.* The average scores of these five topics, in sum, gave us the average score of consonant clusters unit. The comparison of learners performances in pre-test and post-test shows that the average scores of participants in post-test increased in comparison with their pre-test. As an example S 6 learner got 33 % in pre-test but in post-test he has made remarkable progress and obtained 91 % in post-test. Also, other learners showed an acceptable progress at the end of the course in this unit.
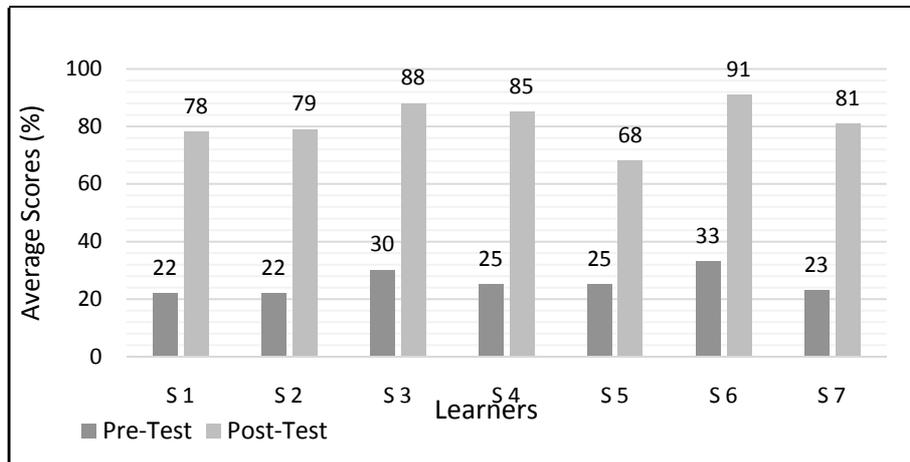
Figure 1. Average Scores of Learners in Consonant Clusters

The degree of their progress shows that in this unit the lowest score is for S 5 learner with 43 % and the highest score is for S4 learner with 60 %. In other words, learners' performances fall between 43 to 60 % in this unit. By degree of progress for each learner we mean that what percent (%) our participants had progress in comparison with their pre-test. As indicated almost all of learners had progress in learning consonant clusters, but the degree of their progress are different. For example the S1 participant got the score of 22 % in pre-test and at the end of the study got the score of 78 % in post-test. The total performance of learner shows that the participants had a significant progress in consonant cluster unit and exercises of the software were helpful and effective for them.

Word Stress

Table 2 shows learners' performances in word stress unit. In this unit we have 5 topics including: 1. *Recognizing stress in words* 2. *Stress patterns* 3. *Un-stress syllables* 4. *Stress in two syllables words* 5. *Suffix that affect word stress*. The

sum of the scores of these topics gave us average score of word stress unit. As indicated in table 2 learners performance in post-test increase in comparison with their pre-test. Most of the participants had progress in this unit and got better grades in post-test. Their levels of progress are different and some of them had better performance in comparison with other participants. For example, S 3 learner got 23 % in pre-test, but in post-test had a better performance and got 92 % in this unit. The rest of learners also had an acceptable progress in comparison with their pre-test.
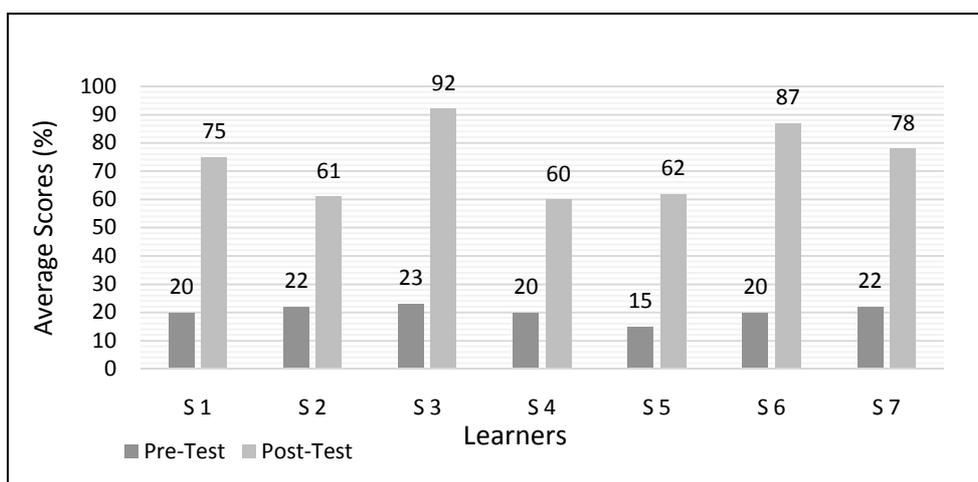
Figure 2. Average Scores of Learners in Word Stress Unit

Their degree of progress revealed that the lowest score and progress is for S 2 learner by 39 % and highest score is for S 3 learner with 69 %. In other words, the participants' performances fall between 39 % and 69 % in this unit. The sum of the performance of learners show a high degree of progress in this unit. This shows that exercises and activities provided in the *Clear Pronunciation 2* software were helpful and effective for learners, and learners had significant and acceptable progress in word stress unit.

Connected Speech

The next unit which is one of the most important components of pronunciation which help learners to be proficient in English language is connected speech. This unit compromise 5 topics as follow: 1. *Short forms* 2. *Joining to a vowel* 3. *Joining consonants* 4. *Words ending in /t/ or /d/* and 5.*Disappearing sounds*. The sum of the score of these 5 topics gave us the average scores of participants in this unit which is shown in table 3. In this unit participants tried to learn how to connect words in a sentence and as above titles show the aim of this unit is to make learner speech similar to the native accent. For example in *joining to a vowel* topic the participants learn how to join a consonant at the end of a word to a vowel at the start of a word or in *short forms* topic they learnt how to shorten the 'going to', 'get to', 'want to' and so on. The table 3 shows learners performance in pre-test and post-test. As seen in this table learners had a better performance in post-test than their pre-test and got better grades. For example S 3 got 25 % in pre-test and 85 % in post-test which shows a high degree of progress for this learner.
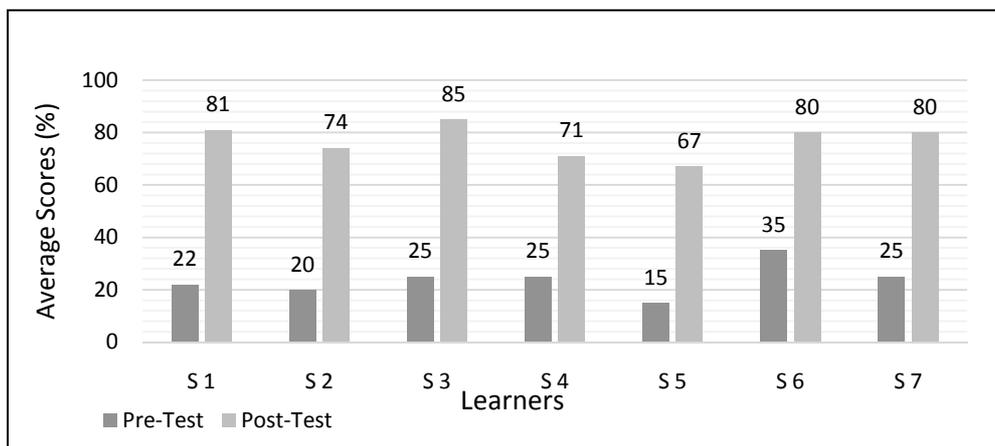
Figure 3. Average Scores of Learners in Connected Speech Unit

The lowest progress among participants is for S 6 learner by obtaining the lowest number of 45 % and the highest progress is for S 3 learner with 60 % in this unit. Of course, by lowest progress it does not mean that this participant had no progress. But, in other words his progress was not satisfactory and acceptable. Another case is S 5 learner who got low score (20 %) in pre-test, but in post-test by focusing more on activities of the program improved his performance and got 67 % at the end of the study. Although it was not a very high score in comparison with other learners' scores, for the researchers it was an acceptable progress in comparison with his pre-test score. This situation happened for most of the learners and by analyzing of the degree of their progress in comparison with their pre-test scores we see that they had a significant level of progress and it seems that the exercises and activities of the software were helpful for them. In sum, the final average progress of participants is satisfactory and acceptable, though they had different levels of progress. The important point is that all of the learners had significant level of progress in this unit and fortunately the exercises and activities of the software in this unit were effective and helpful for learners.

Sentence Stress

Like other units, the performance of learners in sentence stress unit shows in table 4 with details. This feature known as one of the important prosodic feature of pronunciation which our participants practiced 25 activities and exercises for learning it in this software. As said table 4 shows the exact performance of learners in pre-test and post-test in this unit. Average scores of learners in this unit obtained from sum of the learners performance in 5 topics which are as follow: 1. *Recognizing sentence stress* 2. *Un-stress words in sentences* 3. *Stress and the word 'be'* 4. *Stress and the auxiliary verb* and 5.

Sentence stress and emphasis. Learners by completing of these exercises got their average scores in this unit. As shown in this table, all of the learners had acceptable progress in this unit. Although they had not a satisfactory performances in pre-test, in the post-test after receiving enough feedback by the teacher and the software their performance improved and got better grades. For example, S 6 learner got 20% in pre-test, but during the project, he worked hard, improved his performance, and at the end of study got 82 %, which assessed as an acceptable grade for this learner.
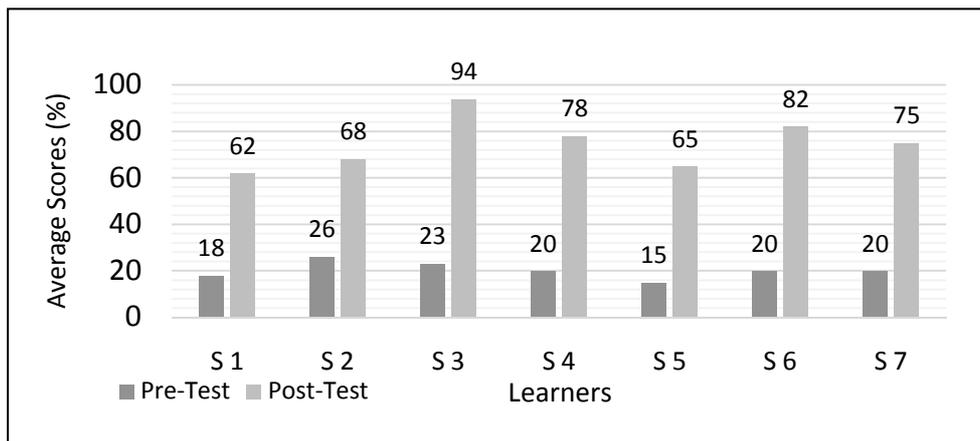
Figure 4. Average Scores of Learners in Sentence Stress Unit

The degree of their progress in comparison with their pre-test scores indicate that the lowest score obtained by S 2 participant with 42 % and the best and the highest score is for S 3 participant with 71 %. In other words, this participant had 71 % progress in comparison with his pre-test which was 23 %. Of course the important point is that all of learners had progress in this unit. Some of them had a better performance than other learners. For example based on learners scores S3, S4 learners had acceptable performance than S1, S2 learners. In sum the performances of learners in this unit were acceptable for the researchers and they had a significant level of progress after the course.

Intonation

As defined before, intonation is the patterns of ups and downs of your voice and pitch on and after the focus words which is usually at the end of the sentences. In this software intonation unit contain 5 topics as follow: 1. *Recognizing intonation* 2. *Standard intonation* 3. *Intonation for emphasis* 4. *Clarifying information* and 5. *Expressing attitude.* The average score of intonation for each learner obtained from the sum of the scores of these 5 topics. The participants in this unit learned when and how and in what situations change the pitch (ups and downs) of their voices to convey their intended meaning to the listener. The table 5 Shows their performances of learners in pre-test and post-test. A small glace on performance of learners shows that all of the learners had a better performance in their post-test. As an example S 3 participant got a low score before starting of using the software, but he improve his performance during the course and got the score of 91 % at the end of study which is a high and good performance. The situation is the same for other participants and all of them totally had progress in their post-test.
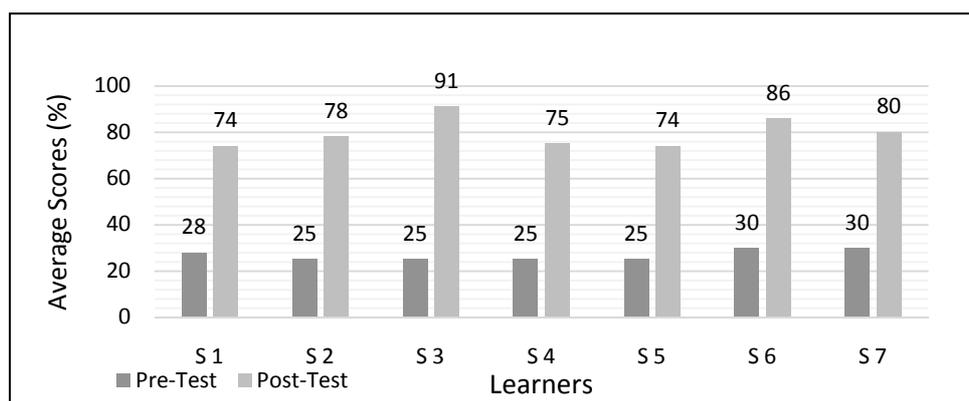
Figure 5. Average Scores of Learners in Intonation Unit

116

The degree of their progress in comparison with their pre-test indicates that the lowest score is for S 1 learner that got 46 % and S 3 learner who got 66 % at the end of study obtains the highest score. It means that he was 66 % better than his own performance in pre-test. In sum the performance of learners in this unit assessed as acceptable and they had a significant progress in learning intonation patterns. It seems that the exercises of this unit were helpful for them and they learned intonation patterns effectively.

Total Performance of Learners in Pre-Test and Post-Test

The last table presented in this chapter is table 6 which shows the total performance of learners in pre-test and post-test. Both their pre-test and post-test are compared. By pre-test and post-test we mean the performance of learners in 5 units of the software. Their performance in these 5 units were calculated and showed as their final scores in pre-test and post-test. As seen all of learners had an acceptable progress in this project. This shows that all of them learned suprasegmental features effectively and the software exercises had significant influence on improvement of learner's English pronunciation. In other words, they improved their consonant clusters, word stress, connected speech, sentence stress and intonation to a higher level.\
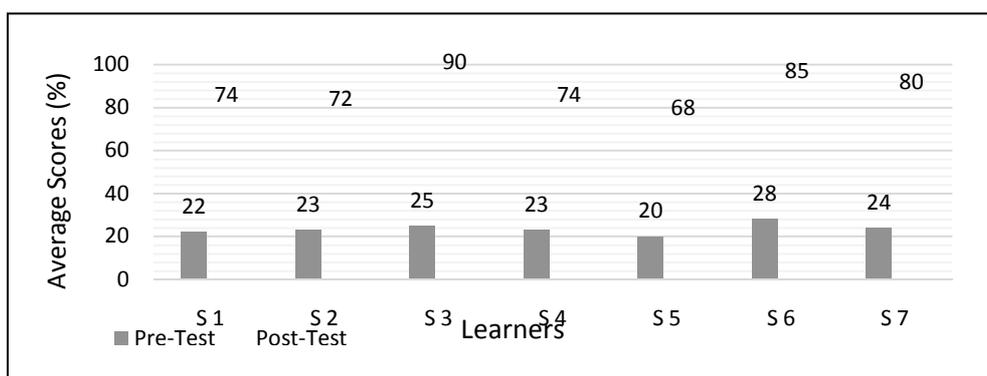
Figure 6. Total Performance of Learners in Pre-test vs. Post-test

117

5. Discussion and Conclusion

The goal of this study was to examine the application of *Clear Pronunciation 2* software in improving pronunciation of Iranian intermediate EFL learners. In particular, this study attempted to teach prosodic features of pronunciation, stress, intonation, and rhythm to Iranian learners. The research question of this study was; does *Clear Pronunciation 2* software have any significant impact on Iranian intermediate EFL learner's pronunciation? In this study, a mixed methodology was examined and both the teacher and *Clear Pronunciation 2* software were engaged in teaching pronunciation. To this aim, first teacher had a general introduction of each topic and after that, the learners work with the software. In the software, first, the teacher, explaining through video for each topic, introduced the units and after that, learners practiced the exercises of the software. The interesting point is that the learners work more with the software than with teacher and the role of teacher was to provide required feedback for the learners during the course.

The results of the study showed that the learners' pronunciation improved significantly after six weeks of working with the software. They had enough time to work with the software and had this chance to work with it whenever and whenever they wanted. In addition, the results and the feedbacks provided by the software allowed them to have access to their performances and work more on their weaknesses to improve their pronunciation skill. As table 6indicates, all of learners had progress in their total performance and their pronunciation improved significantly. More precisely, they had improvement in their consonant clusters, word stress, connected speech, sentence stress and intonation. In sum, their pronunciation significantly improved and the exercises of the software were helpful and effective for them. So the null hypothesis of the first research question is rejected. This highlights the importance of

transition from traditional methods of pronunciation teaching to more new ways of pronunciation teaching such as computer assisted pronunciation teaching and using other computer technologies. As said before because of inefficiency of traditional methods of pronunciation teaching, one way of improving it is using computer technologies to meet the learners' needs. As Lai (2006) state "when the learning environment is ineffective or fails to meet students' needs, incorporating instructional technology such as computer-assisted language learning (CALL), into the classroom experience may improve the process". Also Lacina (2004) believed that recent advances in CALL environment enabled learners to construct meaning in a more effective way.

The findings of present study are in line with previous studies on using computer for teaching pronunciation (Chen, 2014; Gorjian et al. 2013; Tanner & Landon, 2009; Graff, 2006). For example AbuSeileek (2007) in his study examined the effect of the *Mouton Interactive Introduction to Phonetics and Phonology* software on Saudi EFL learners on perception and production of correct stress patterns. The aim of his study was to use a communicative approach to teach right stress patterns. As a result, he found that the learner's perception and production of stress patterns in words, phrases and sentences improved significantly. Moreover, the results of the current study support the findings of Verdugo (2006) which studied the effect of ASR software on intonation of EFL learners. At the end of the study he found that the quality of their intonation increased and their perception toward intonation increased.

Also this study showed that teaching suprasegmental features have great impact on learner's perception and production of their own and native speaker speech. Many scholars emphasized the important role of suprasegmental features in speech and believed that such errors hinder the assessment of learners toward target language speech (Kang et al., 2010; Lee et al., 2015). As

Jenkins (2002) asserts, teaching suprasegmental features is more important than segmental ones and achieving communicative competence in pronunciation is only possible by acquiring of suprasegmental features than learning segmental features (Jenkins, 2002). Some part of suprasegmental features should be emphasized more than other parts. For example stress patterns of English which are the most important part of suprasegmental features has a direct relationship with intelligibility of our speech. Learning this feature can improve learner competence in "how to place correct stress in sentences in English to achieve intelligibility in English" (Arslan, 2013, p. 185). This intelligibility can be seen in both perception and production of our speech. Failure in each one will decrease the intelligibility of our speech.

An important problem in our traditional classroom is that "learners frequently seem not to "hear" the target pronunciation even when it is modeled by their teachers, instead continuing with their original, incorrect pronunciation" (Reed & Michaud, 2011). Our study showed that this software is more efficient in modeling of target language speech for the learners, something which is unique in EFL context. In EFL context because of lack of native English teacher, using such programs can be very helpful for learners. These programs can play the role of native speaker speech and as model for learner to help them to analyze and assess target language speech and acquire right pronunciation patterns. As Huffman (2011) stated "expanding existent technologies to include features that offer additional visual support (through video of interlocutors) and written textual support (through simultaneous access to online dictionaries, pronunciation guides or translators) may make the devices more appealing to instructors and learners for use in synchronous communication". Improving the quality of CALL programs result in improvement of learner proficiency. This also balances the task of teacher and

change the direction of current pronunciation classroom to a more learner-centered one.

One of the main problems which is highlighted in introduction of this study was the problem of any organized materials and textbooks for teaching pronunciation in Iran. This and the same programs like *Clear Pronunciation 2* can solve the problem our teachers in having an organized and well-designed materials for teaching pronunciation. Because of existence of enough space in these programs, there is almost no limitation in numbers of materials and activities implemented in it. Another problems which is mentioned in our introduction were the lack of enough time for practice and also the frequency of instruction. For the first problem, learners in this study had access to the software whenever and wherever they needed and their instruction did not limit to the classroom time. This helped them to work with the software in times when they had enough tendency and motivation and does not work in times when they are tired or impatient.

Another problem is that teachers in the classroom in Iran do not have enough time to teach and work with their students and the class time in most of the cases directed in a teacher-centered form and teachers only teach materials and do not have time to practice enough exercises. This lack of enough time for practice is harmful for learners and in such circumstances learner does not learn materials in a meaningful way. Fortunately, in this software, the learners had enough time and chance of practicing with a number of exercises which helped learners to acquire pronunciation components in an interactive and meaningful way. This enhanced the chance of learning in comparison with classroom instruction in Iran. As a result, in such a circumstance where there are enough meaningful exercises and enough time for practice, it seems desirable to expect enough improvement in learner's pronunciation.

In EFL context where the learners have little access to authentic materials computer programs can be the best choice for improving of their pronunciation skill. The CALL programs offer many chances for the learners to work on their weaknesses and improve their proficiency in target language. Also by using these technologies they can assess their performance in pronunciation components and recognize their errors and weaknesses and improve their intelligibility in target language. However both teachers and learners can benefit from these technologies to improve their teaching and learning language skills. This study may be regarded as a good sample of how prosodic features of pronunciation can be taught in an EFL context such as Iran.

References

Abdolmaleki, M., & Mohebi, H. (2014). A Diagnostic-remedial Survey of Iranian EFL Teachers' Knowledge and Practice of Suprasegmental Pronunciation Features. *Procedia - Social and Behavioral Sciences, 98*, 36–43.

AbuSeileek, A. F. (2007). Computer-assisted pronunciation instruction as an effective means for teaching stress. *JALT CALL Journal, 3*(1-2), 3-14.

Arslan, R. Ş. (2013). Enhancing Non-Native Prospective English Language Teachers' Competency in Sentential Stress Patterns in English, Pamukkale University. *Journal of Education*, 34(II), 183-195.

Celce-Murcia, M., Brinton, D. M., & Goodwin J. M. (1996). Teaching pronunciation: A reference for teachers of English to speakers of other languages. New York: Cambridge University Press.

Chen, A. H. (2014). The effects of employing MYET on college students' pronunciation skills training in Taiwan. *IJBRITISH, 1*(3), 43-53.

Delcloque, P. (2000). History of CALL. Retrieved November 20, 2008, from http://www.history-of-call.org/.

Deng, J., Holtby, A., Howden-Weaver, L., Nessim, L., Nicholas, B., Nickle, K., Pannekoek, C., Stephan, S., Sun, M. (2009). English pronunciation research: The neglected orphan of Utopian Goals | 35 Selected Papers from the 1st Annual Conference on Pronunciation in Second Language Learning and Teaching second language acquisition studies. Prairie Metropolis Centre Working Paper Series, WP05-09, Edmonton, AB.

Donmus, V. (2010). The use of social networks in educational computer-game based foreign language learning. *Procedia - Social and Behavioral Sciences*, 9, 1497-1503.

Gorjian, B., Hayati, A., & Pourkhoni, P. (2013). Using Praat software in teaching prosodic features to EFL learners. *Procedia - Social and Behavioral Sciences*, *84*, 34– 40.

Graff, M. (2006). *A study of Rosetta Stone's effectiveness on improving English pronunciation* (Unpublished master's thesis). California State University Dominguez Hills.

Hayati, M. (2010). Notes on teaching English pronunciation to EFL learners: A case of Iranian high school students. *English Language Teaching*, *3*(4), 121-126.

Huffman, S. (2011). Using mobile technologies for synchronous CMC to develop L2 oral proficiency. In. J. Levis & K. LeVelle (Eds.). *Proceedings of the 2nd Pronunciation in Second Language Learning and Teaching Conference,* Sept. 2010. (pp. 122-129), Ames, IA: Iowa State University.

Jahromi, S. A. F., & Salimi, F. (2013). Exploring the human element of computer-assisted language learning: An Iranian context. *Computer Assisted Language Learning, 26*(2), 158-176.

Jenkins, J. (2002). A sociolinguistically based, empirically researched pronunciation syllabus for English as an international language. *Applied Linguistics, 23*(1), 83-103. doi:10.1093/applin/23.1.83.

Kang, O., Rubin, D. O. N., & Pickering, L. (2010). Suprasegmental measures of accentedness and judgments of language learner proficiency in oral English. *The Modern Language Journal, 94*, 554–566.

Ketabi, S., & Saeb, F. (2015). Pronunciation teaching: Past and present. *International Journal of Applied Linguistics & English Literature, 4*(5), 182-189.

Khany, R., & Ghoreyshi, M. (2013). Iranian EFL teachers' familiarity, attitudes and willingness towards different internet tools and their applications. *European Online Journal of Natural and Social Sciences, 2*(2), 612-621.

Khoii, R., & Aghabeig, M. (2009). Computer software and the improvement of the elementary EFL students' listening comprehension. *Journal of Teaching English as a Foreign Language and Literature, 1*(2), 89-101.

Lacina, J. (2004). Promoting language acquisitions: Technology and English language learners. *Childhood Education, 81*(2), 113-115.

Lai, C. (2006). The advantages and disadvantages of computer technology in second language acquisition. *National Journal for Publishing and Mentoring Doctoral Student Research, 3*(1), 1-6.

LaRocca, S. (1994). Exploiting strengths and avoiding weaknesses in the use of speech recognition for language learning. *CALICO Journal, 12*(1), 102-105.

Liu, Y. (2008). The effectiveness of integrating commercial pronunciation software into an ESL pronunciation class. (Master of Arts), Iowa State University. (11716).

Luo, B. (2014). Evaluating a computer-assisted pronunciation training (CAPT) technique for efficient classroom instruction. *Computer Assisted Language Learning, 1*-26.

Neri, A., Cucchiarini, C., Strik, H., & Boves, L. (2002). The pedagogy-technology interface in computer assisted pronunciation training. *Computer Assisted Language Learning, 15*(5), 441- 467.

Pirasteh, P. (2014). The effectiveness of computer-assisted language learning (CALL) on learning grammar by Iranian EFL learners. *Procedia - Social and Behavioral Sciences*, 98, 1422–1427.

Rafiee, S. J., & Purfallah, S. A. (2014). Perceptions of junior high school teachers toward computer assisted language learning (CALL) within the context of Azarbayjan provinces. *Procedia - Social and Behavioral Sciences, 98*, 1445–1453.

Reed, M. & Michaud, C. (2011). An integrated approach to pronunciation: Listening comprehension and intelligibility in theory and practice. In. J. Levis & K. LeVelle (Eds.). *Proceedings of the 2nd Pronunciation in Second Language Learning and Teaching Conference,* Sept. 2010. (pp. 95-104), Ames, IA: Iowa State University.

Mehrpour, S., AlaviShoushtari, S., & HaghighatNezhadShirazi, P. (2016). Computer-Assisted Pronunciation Training: The Effect of Integrating Accent Reduction Software on Iranian EFL Learner' Pronunciation. *CALL-EJ, 17*(1), 97-112.

Rafieea, S. J., AllahverdiPurfallah, S. (2014). Perceptions of Junior High school Teachers toward Computer Assisted Language Learning (CALL) Within the Context of Azarbayjan Provinces. *Procedia - Social and Behavioral Sciences,* 98, 1445–1453.

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

Shooshtari, et al. (2013). A Call for Teaching Pronunciation in Iranian Schools. *International Journal of Academic Research in Progressive Education and Development*, *2*(1), 454-465.

Tanner, M. W., & Landon, M. M. (2009). The Effects of Computer-Assisted Pronunciation Reading on ESL Learners' Use of Pausing, Stress, Intonation, and Overal Comprehinsibility. *Language Learning & Technology*, *13*(3), 51–65.

Thomson, R. I., & Derwing, T. M. (2014). The Effectiveness of L2 Pronunciation Instruction: A Narrative Review. *Applied Linguistics, 36*(3), 326–344.

Verdugo, D. (2006). A study of intonation awareness and learning in non-native speakers of English. *Language Awareness, 15*(3), 141–159.