The Effect of Teaching Prosody through Visual Feedback Activities on Oral Reading Skills in L2

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ABSTRACT

The present study aimed to determine the effect of teaching prosody through visual feedback activities on oral reading skills of Turkish language learners. The quantitative dimension of the study utilized a single group pre-test post-test experimental design, whereas, the qualitative dimension consisted of the data obtained from the interviews. The participant group included a convenient sample of 30 non-native students who had completed a certificate program at a Turkish Language Teaching Center affiliated to a state university and enrolled in undergraduate course work during the study period. Twenty-two of these students were Georgian and the rest were from the Republic of Yemen. The participants were provided with a 12-week-long training supported by Praat 6.0.01 voice analysis program. At the end of the study, it was found that teaching prosody through visual feedback activities has improved the participants' oral reading skills in terms of intonation, focus, pause and reading rate, and that the participants have expressed positive opinions about learning prosody through visual feedback activities. This has led to the conclusion that teaching prosody through visual feedback activities is effective in improving oral reading skills of those who learn Turkish as a foreign language.

INTRODUCTION

The aim of language teaching is to develop four basic language skills of reading, listening, speaking and writing as in the mother tongue teaching. Reading among these skills is of great importance in language teaching due to its contribution to the development of other language skills. Fluency is provided by the correct vocalization of the words and the correct reading speed and intonation. Fluency in reading, which is one of the perceptive language skills, is considered as an important indicator of successful reading. A fluent reading is said to contribute to a better understanding of the text by the reader and the listeners.

Fluent reading is defined as smooth, correct, prosodic reading of a text at an appropriate speed (Zutel & Rasinski, 1991) and requires the harmonic combination of correctness, speed and prosodic skills (Baştuğ & Akyol, 2012). National Reading Panel Report (NRP) (2000) emphasizes the role and importance of fluent reading as vital component of developing effective reading skills. The report also highlights that there are five essential parts as: understanding, phonics, voice training and awareness and fluency. Furthermore, the panel recommended that fluency should be incorporated in national reading syllabus. Prosody is closely related with not only fluent reading

but also it is an important part of understanding of text. In this sense, prosody becomes an essential perhaps the most important part of fluent reading. Some scholars (Kuhn, Schwanenflugel & Meisinger, 2010 as cited in Chan, 2014). Rasinski (2004) emphasized the fact that without prosodic skills which include tone, intonation, stress and rhythm readers are less likely to understand the text they read. Whilst most of the fluency evaluations used in educational settings focus only speed and correctness in measuring fluency, they often undervalue the role and importance of prosody (Overstreet, 2014). There are numerous researches in the literature points out the crucial role of prosody in teaching native and foreign languages. Additionally, it is also emphasized that prosody is an integral and indispensable part of both spoken language and loud reading (e.g., Dowhower, 1991; Eda, 2004; Rasinski et al., 2006; Schwanenflugel et al., 2004). Rasinski & Hoffman (2003) highlight that in addition to be a vital element of reading and understanding; prosody allows competent readers to develop not only fluent reading skills and better understanding but also completing reading texts with correct expressions. Prosodic reading occurs when readers reflect the sentiments exist in the words and sentences of the text. In order to find right tune in reading one needs to apply appropriate pauses throughout text. In doing so readers would help audience to understand text better. Hence, prosodic reading and trainings should be taken into account when designing language curriculums and activities.

Prosodic reading plays an important role in teaching both native and foreign language. The skills developed for prosodic reading will have positive contribution for improving learners speaking abilities. Moreover, grasping the prosodic structure of the target language will also enable learners to express themselves effectively in conversation. Research in the literature emphasizes that teaching prosody is a neglected field of study in foreign language teaching and that prosody is a vital part of spoken language and oral reading (Dowhower, 1991; Eda, 2004; Rasinski vd., 2006; Schwanenflugel vd., 2004). At the same time, researches on teaching Turkish as a foreign language revealed that those who learn Turkish as a foreign language have problems in pronunciation and reflecting prosodic feature. (Açık, 2008; Karababa, 2009; Kara, 2010; Tüm, 2014; Sancı Uzun vd., 2014; Demirci, 2015).

There are several researches in the field of prosodic learning that emphasize the importance of audio spectrum analyzer software programmes used in visual feedback systems for acquiring linguistic skills (e.g., Derwing & Munro 1997; Chun 1989; Pennington 1999; Tanıguchı ve Abberton 1999; Kommissarchik & Kommissarchik 2000; Neri et al. 2002; Derwing & Rossiter 2003; Hincks 2003; Martin, 2004; Bonneau et al. 2004; Hardison 2004; Levis 2007; Demenko et al. 2009; Tanner & Landon 2009; Coşkun, 2009; Çetin 2013; Çelebi & Kibar Furtun 2014; Çelebi 2016). Prosodic learning based on visual feedback system enables learners to access unlimited resources, exercises and to adjust their learning speed. Martin (2004), claims that learner can improve their prosodic learning by comparing some key parameters such as frequency (F0) of their own voice, intensity and duration of syllable. In addition to the importance of kinaesthetic learning, Levis (2007) points out that computer enable learners to observe their progress and to what extent they align their own pronunciation to different models by taking frequent exams, revisions, individualized learning and listening techniques. With this model learners develop a unique learning style that fits their own learning needs and requirements (Nagata, 1993). Learners, moreover, through this easily accessible new technology recognise the scope, kind and place of their mistakes through an effective comparison based on native speakers' pronunciations and then correct them accordingly (Chun, 1989). In the literature, there is hardly any research focused on the effect of teaching prosody through visual feedback activities on oral reading skills of Turkish language learners. From this perspective, this research will be one of the pioneering works in this

field. By introducing new explanatory model and tools for Turkish language learners, this research will particularly contribute to the literature of prosodic learning.

The aim of this research is twofold. First is to identify the reading skills of Turkish language learners based on prosodic elements such as; intonation, focus, pause and reading speed. Second is to define the impact of visual feedback activities on these prosodic elements. Within this framework, this research seeks to investigate on two main research questions;

1. Is there any meaningful difference between participants pre-test and post-test results for their prosodic elements such as intonation, focus, pause and reading speeds?

2. What are the views and perspectives of participants for prosodic learning through visual feedback activities?.

METHODOLOGY

Research Design

This research will use a mixed-method design in which will be based on a quantitative research first then will use qualitative data for explaining and clarifying its findings and to restructure. Non-random sampling techniques will be used for recruiting its participants (Creswell and Plano Clark, 2014). The quantitative dimension of the study utilized a single group pre-test post-test experimental design, whereas, the qualitative dimension consisted of the data obtained from the interviews. It has been generally considered that control group may not be an appropriate tool for both in comparing prosodic teaching and conventional teaching methods as there are several immeasurable factors involved and producing objective results (Hardison, 2004). Hence, this research will not use a control group. Quantitative data of this research are obtained from the voice records of participants' pre-test and post-test reading of Nasreddin Hoca's comic titled: "Şakayı Sevmem". Qualitative data is also based on the transcription of semi structured interview.
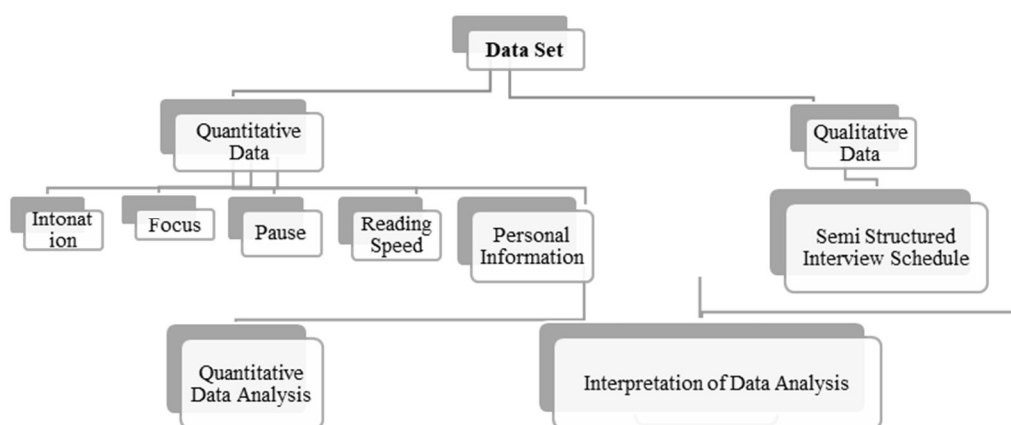
Figure 1. Shows data set and process of analysis during the research

Participants

Non-probability-based convenience sampling method was used to create research group. All participants were selected amongst volunteered foreign students who completed their Turkish Language course at the centre for teaching Turkish (TÖMER) and continue their study at a state university. The research group consisted of 22 Georgian and 8 Yemeni students. Three of the Yemeni students and 18 of the Georgian students were female.

Experimental process

Participants were informed about main features and applications of prosodic teaching prior to 12 week long treatment. In order to maintain manageable size and to obtain more reliable data the research group is divided into two equal groups. For the experiments the pronunciations of 500 different kinds of words consisting of two or more syllables were downloaded from the online dictionary of most frequently used words in written Turkish (Ölker, 2011) and recorded to be used during the experiment. By using Praat 6.0.01 software program an explanatory file was created for each word. In order to provide visual feedback some positive, negative, simple, compound and conditional sentences were produced and then readings of these sentences by two experienced Turkish teachers were recorded. In the final step those recordings were integrated with Praat 6.0.01 program to be used during the experiment.

Praat 6.0.01 is a free software program which allows researcher to record voice or open any prerecorded voice file on computer memory. This program plays an important role in not only identifying the elements of prosodic teaching but also it allows to transcribe voices, words and sentences and to identify the value of basic voice frequency. All participants were informed about technical features of this software program and allowed to have several demo practices to experience about main applications of the program such as recording and interpreting the images of intonation, pause and focus.

Data Collection

All participants of the research group were asked to read the comic twice silently and then in a secluded environment repeat the exercise loudly. The readings of participants were recorded in Audacity program at 44100 Hz sampling speed by using 16 bit MXL USB.006 capacity microphone. The same text was read out by three specialists on Turkish, theatre and an elocutionist to make meaningful comparisons between participants' pre-test and post-test values on their speed, focus, intonation and pause. Qualitative data obtained from the analysis of transcribed answers of semi structure interview schedule conducted to 15 volunteers at the end of 12-week treatment.

Data Analysis

• Quantitative Data Analysis

Participants' recordings were analysed by the customised version of Praat 6,0,01 according to the features of intonation, focus, pause and reading speed (e.g., Boersma & Weenink, 2011;

Kılıç, 2011; Mertens, 2011). Prosogram model was used to produce an analysis of loud reading samples based on the level of pitch and tune value (Mertens, 2011).

Three different levels of tune changes (increase, decrease and flat) were identified as a result of the analysis of experts' voice files. Similarities and consistency in experts' toning were evaluated and coded as; 1 for flat, 2 for decrease and 3 for increase. Following on coding tone changes coefficient of reliability for the experts' tone changes was measured as 0.946 which falls within the range of perfect coefficiency rate (0.8 and 1) by using Croanbach's Alpha formulation. This coeeficiency rate was used to evaluate all participants' pre-test as well as post test results for detailed analysis. In the analysis table two different codes were used; code 1 for similarity between participants' tone and the experts and code 0 for non-match in between tone values. A normality test was also applied to the pre-test and post-test tone value results followed by a t-test to identify whether there is any meaningful statistical differences exist within matched groups.

Focus points which appeared in 14 sentences pronounced by the three experts were identified to be able to compare these points with participants' pre-test and post-test loud reading samples. In the same way, identical coding practice (code 1for similarity; code 0 for non-similarity) was applied. Based on the evaluation of focus points between different samples, a normality test and t-tests were conducted.

For pausing experiment 29 different places including stops at the end of each sentence were identified in the text which requires participants to pause during the reading exercise and additional 49 places which require nonstop reading. Participants' loud reading voices files were analysed and then recorded accordingly. A normality test was conducted to identify distribution of data and then these data were classified according to their similarities and in the final stage t-tests were conducted to these classified groups to observe any meaningful statistical difference between them. Similar methodological process was followed to identify and evaluate participants' reading speed based on the comic text which consists of 77 words by using customised version of Praat software program. To make a precise calculation of reading time recording was started with the pronunciation of the first word in the text and stopped at the last. Each and every participants' reading file were analysed according to their reading speed formula (total number of words divided by the number of minutes spent reading x 60). Normality tests followed by t-tests were conducted to identify evaluation points which allowed us to make a comparison between participants' and experts' reading speeds. Average reading speed for three experts was recorded as 101 per minute?

• **Qualitative Data Analysis**

The qualitative data of the study were obtained by a semi-structured interview form prepared by the researcher with three expert opinions. After the experimental procedure, the responses of 15 volunteer participants to the questions in the form were recorded with a voice recorder and transcribed. Views and experience of participants of this research group in relation to the prosodic teaching exercise were recorded and transcribed into word processing program to be coded and examined by the application of content analysis. The names of participants were changed and expressed with only initials to provide full confidentiality and anonymity.

RESULTS

The present research focused predominantly on the critical analysis of two different but interrelated research questions. First is to examine the existence, if any, of meaningful statistical

differences between participants' pre-test and post test results and experts' reading features including intonation, focus, pause and reading speed. Second was to evaluate the role and impact of visual feedback on prosodic teaching.

Results on Intonation values

Table 1. Particpants' pre-test and post-test points for intonation

Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test
K1	104	124	K11	88	108	K21	111	127
K2	77	111	K12	98	106	K22	99	113
K3	70	103	K13	89	114	K23	101	119
K4	76	112	K14	107	129	K24	75	120
K5	92	115	K15	86	118	K25	101	112
K6	101	114	K16	114	130	K26	108	120
K7	102	117	K17	100	113	K27	97	118
K8	100	111	K18	96	118	K28	90	111
K9	90	107	K19	112	121	K29	73	120
K10	76	100	K20	116	127	K30	72	113

Above Table 1 illustrates the pre-test and post-test intonation results of the participants' reading of a comic text consisting of 175 syllables. This table shows that while participants' pre-test values are between 70 and 110, their post results increased to somewhere in between 100 and 130. P value for pre-test readings was measured as 0.106 and for post-test reading it was 0.807. Both test results indicated a greater value than critic threshold of 0.05 which becomes primary evidence for a meaningful distribution. One can particularly notice this normality in the favour of post test result as it shows $[t(29) = 11,104, p<0.000]$. It is also clear that participants' loud reading scores without visual feedback practices for intonation increased from 94, 03 to the average of 115, 70 with visual feedback exercise in the post test experiments. The difference between these two tests was measured as 21, 667.
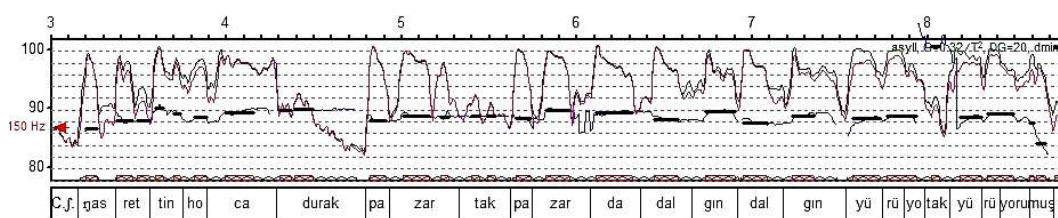
Figure 2. Pre-test Prosogram Image of Third Participant of the first sentence
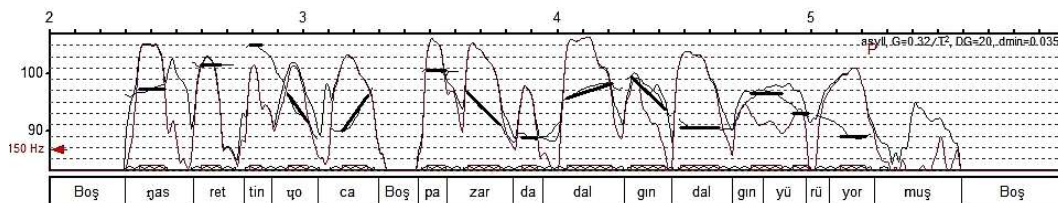
Figure 3. Prosogram image of the first expert of the first sentence
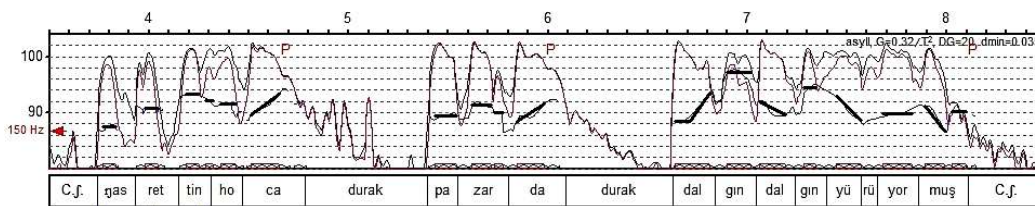
Figure 4. Post-test Prosogram Image of Third Participant of the first sentence

When the pre-test prosogram image of the third participant is examined in Figure 2, it is seen that there is a smooth reading on the intonation seen as black lines. It has been noted that the basic frequency difference among the syllables in the reading is very low. In the post-test prosogram image in Figure 4, the basic frequency difference among the syllables has increased; As a result, ascending and descending in the intonation curve have been clearly revealed. In addition, the intonation curve of the participant in the pre-test prosogram image was not found to be similar to the image of the expert in Figure 3; In the post-test, the basic frequency curves were found to be similar except for some of the syllables.

Results on Focus values

Table 2. Participants pre-test and post-test results for focus points

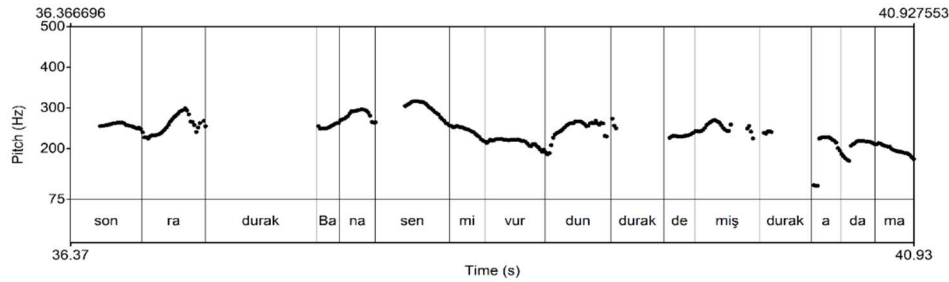| Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test
K1	5	8	K11	5	7	K21	10	12
K2	7	8	K12	10	11	K22	9	9
K3	4	9	K13	6	10	K23	11	12
K4	5	8	K14	6	13	K24	7	12
K5	6	9	K15	5	12	K25	10	11
K6	9	9	K16	9	13	K26	10	11
K7	11	12	K17	10	9	K27	8	12
K8	9	9	K18	9	10	K28	6	12
K9	7	9	K19	13	10	K29	7	11
K10	8	6	K20	9	10	K30	4	11

Above Table 2 contains all participants' pre-test and post test results for focus of reading a comic text consisting of 14 sentences. When the table closely analyzed, it becomes clear that all participants' focus points increased in the post-test except participant number 10. P value for the pre-test results was measured as 0, 230 and for post-test results it was 0, 118. These results show normal distribution as they are bigger than 0, 05. In t-test, there is also a meaningful difference in favour of post test results for focus points [$t(29)= 4,93, p<0,000$]. While the average point for focus in loud reading exercises without visual feedback exercise is 7.83, this average point increased to 10, 16 with visual feedback exercise integrated in prosodic teaching practices in the post test.
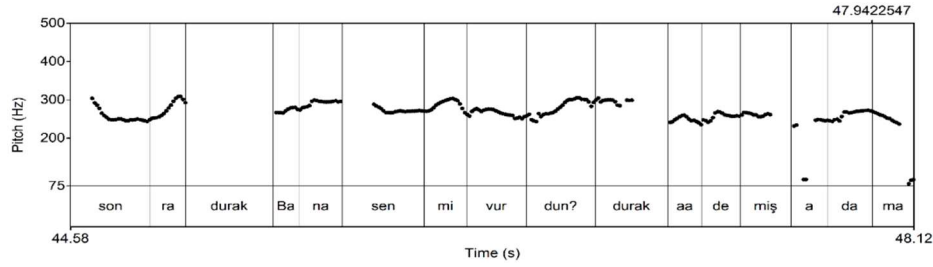
Figure 5. Pre-test Pitch Image of Fifteenth Participant of the ninth sentence
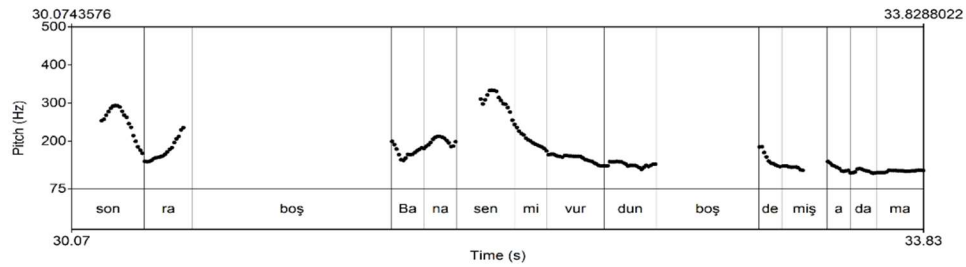
Figure 6. Pitch image of the second expert of the ninth sentence

Figure 7. Pos-test Pitch Image of Fifteenth Participant of the ninth sentence

When the Figure 5 above presenting the pretest image of the sentence "then: Did you hit me? said to the man" of the fifteenth participant is examined, it is seen that the focus is on the verb "Hit". In Figure 6, in the image of the intonation of the second expert, the focus is on the Word "you". It has been noted that the fifteenth participant performed an accurate reading from the post-test intonation image in Figure 7. The focus was also at the word "you" as the expert stated.

Results on Pause values

The pauses of the participants in their oral reading were evaluated under the headings "Unneccessary Pause" and "Neccessary Pause".

- **Unnecessary Pause**

Table 3. Participants' pre-test and post-test unnecessary pause points

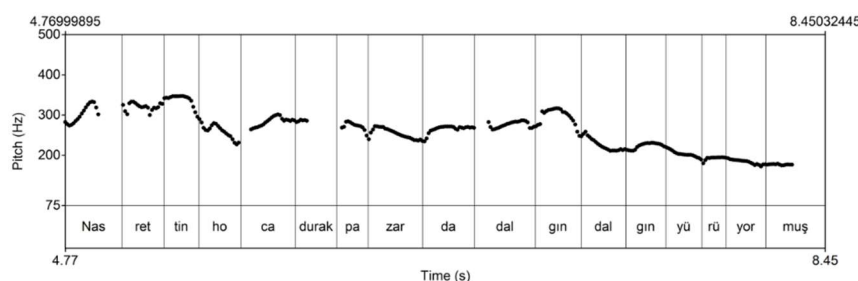| Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test
K1	29	43	K11	40	42	K21	36	45
K2	30	39	K12	35	39	K22	44	44
K3	35	45	K13	44	49	K23	46	49
K4	24	38	K14	34	48	K24	36	43
K5	40	41	K15	42	45	K25	43	45
K6	42	46	K16	41	47	K26	48	49
K7	48	46	K17	45	47	K27	42	41
K8	39	44	K18	45	46	K28	42	44
K9	46	47	K19	47	46	K29	45	44
K10	44	45	K20	42	46	K30	46	47

Above Table 3 illustrates the distribution of all participants' pre-test and post test scores out of 49 in unnecessary pause. It is clear that the scores for unnecessary pauses ranges between 35 and 49 in the pre-test exercises. It is equally clear that this score range increased to 40-49. P value of normality score was measured as 0.008 in pre-test and 0.095 in the post test. By looking at these figures one can claim that the p value for the distribution of post test results points out meaningful normality and one can also claim that the value for the pre-test results does not show meaningful distribution. From a critical point of view, it is possible to claim that the level deviation from normality values is not at a critical level. It is also known that t-test can be resistant to such insignificant deviation from normality level (Sawilowsky & Blair, 1992). In addition to this point, non-parametric test results without assuming normal distribution was detected with t-test results reported. According to the findings obtained from t-test there is meaningful difference in favour of post test results [t(29)= 4,81, p<0.000]. It was noticed that while the average points for unnecessary pause in loud reading practices prior to the applications of prosodic teaching exercises was 40,67 and this point, in the post test applications, increased to 44, 67.
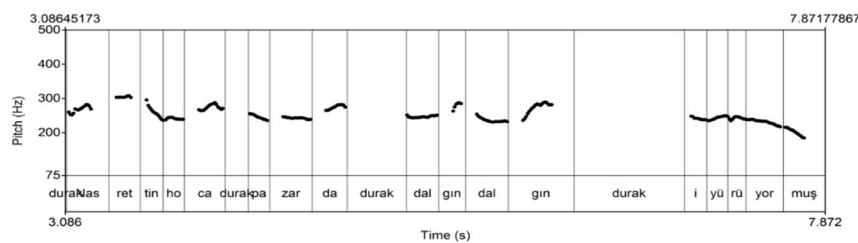
Figure 8. Pre-test Pitch and Textgrid Image of fourteenth Participant of the first sentence
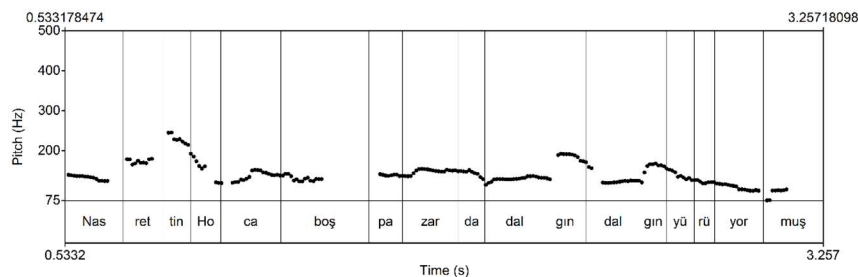
Figure 9. Pitch and Textgrid image of the third expert of the first sentence

Figure 10. Post-test Pitch and Textgrid Image of fourteenth Participant of the first sentence

In Figure 9 above, it has been seen that the third expert made a pause only after the phrase "Nasreddin Hodja" in the sentence "Nasreddin Hodja was mooning around in the market". In Figure 8, in the pretest described intonation image of fourteenth expert, it has been noted there were pauses after the phrases "in the market" and "mooning" where no pauses should be made in addition to "Nasreddin Hodja". On the other hand, it has been understood that this was not the case in Figure 10 showing the post-test performance in terms of the pauses.

- **Necessary Pause**

Table 4. Participants' pre-test and post-test points for necessary pause

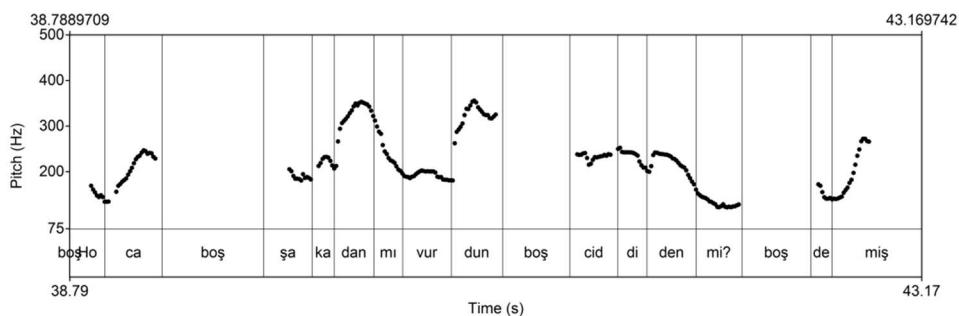| Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test	Participant	Pre-Test	Post-Test
K1	26	27	K11	13	25	K21	18	27
K2	26	27	K12	22	26	K22	15	27
K3	15	25	K13	18	27	K23	22	26
K4	23	29	K14	24	29	K24	16	25
K5	24	26	K15	13	26	K25	22	27
K6	21	27	K16	24	25	K26	18	21
K7	12	27	K17	16	23	K27	18	27
K8	21	27	K18	17	28	K28	15	27
K9	13	28	K19	22	25	K29	7	26
K10	17	28	K20	18	29	K30	15	24

Above Table 4 shows that participants scored between 10 and 25 points in pre-test, 25 or above in post-test exercises. While the P value of Shapiro-Wilk normality test for the pre-test was

0,360, it was 0, 12 in post-test. These results also point out that there is normal distribution for pre-test but there is not for the post test.

Insignificant co efficiency rate ("-2; +2") for kurtosis and skewness in the distribution pre-test shows that there is not major deviancy from normality scores. But the co efficiency rate in the post test results proves that there is not a normal distribution. It is understood that this small deviation from normality has no real impact on the results of t-test due to the fact that the existence of the resistance of t-test against such small deviations (Sawilowski & Blair, 1992) and in addition to this there is also complete overlap between parametric test result without assuming normality and reported test results. The findings of t-test revealed that there is a meaningful difference among the points of pre-test and post-test exercises [t (29) = 9,44, p<0.000]. While the average point for pause in loud reading exercises without the applications of prosodic teaching was 18, 37 and this figure increased to 26, 37 in the post prosodic teaching applications.
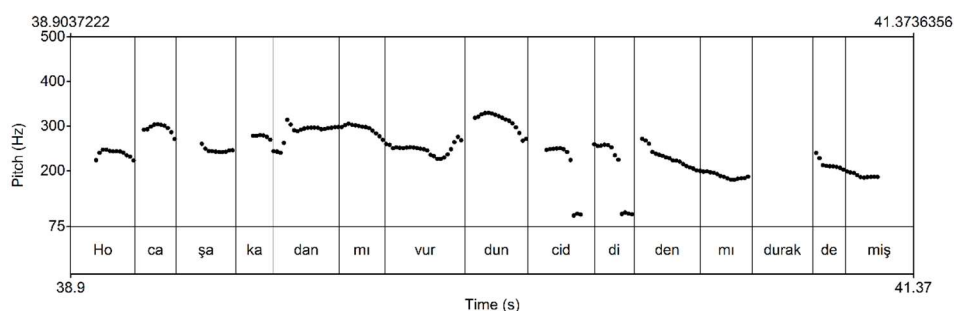
Figure 11. Pre-test Pitch and Textgrid Image of twentieth Participant of the eleventh sentence

Figure 12. Pitch and Textgrid image of the second expert of the eleventh sentence
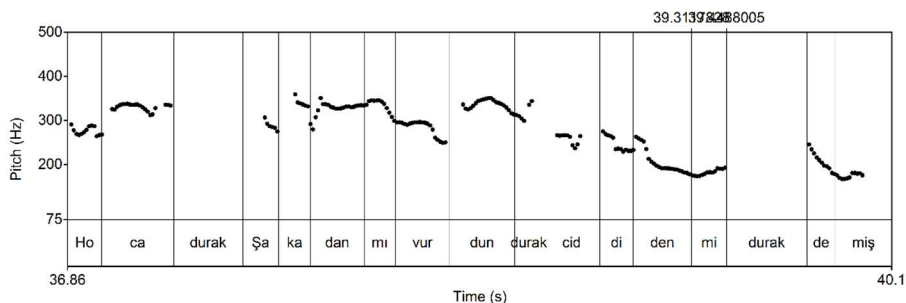
Figure 13. Post-test Pitch and Textgrid Image of twentieth Participant of the eleventh sentence

The intonation images of the twentieth participant's pretest and posttest oral readings and the second expert's oral readings for the sentence, "You hit either as a joke or seriously?" said Hodja" are shown above. It has been seen from the intonation image of the second expert in Figure 12 that there should have been pauses after the words "Hodja", "you hit" and "seriously". In Figure 11 showing the pretest intonation image of the twentieth participant, it has been seen that the pause was only after the end of the question. There were not any other pauses in other places. In the post test intonation image in Figure 13, the twentieth participant paused at the same moment as the expert and no mistakes were made in term of pausing.

Results on Reading Speed

Table 5. Participants' pre-test and post-test reading speed

Participant	Pre-Test Reading Speed	Post-Test Reading Speed	Participant	Pre-Test Reading Speed	Post-Test Reading Speed	Participant	Pre-Test Reading Speed	Post-Test Reading Speed
K1	49,8	77,3	K11	71,0	84,0	K21	71,1	87,2
K2	53,5	75,6	K12	70,2	85,9	K22	117,0	102,7
K3	58,2	79,7	K13	100,2	99,4	K23	75,7	98,9
K4	61,3	86,8	K14	71,2	98,5	K24	52,6	80,2
K5	77,5	76,7	K15	72,9	82,2	K25	86,4	98,9
K6	78,0	86,0	K16	75,5	86,8	K26	109,7	106,5
K7	92,2	92,0	K17	98,9	99,6	K27	79,4	80,1
K8	67,8	79,7	K18	85,7	93,5	K28	88,7	87,3
K9	111,9	88,8	K19	95,1	94,7	K29	83,5	87,3
K10	87,3	96,0	K20	96,9	100,7	K30	80,6	98,9

When table 5 is analyzed critically it would be clear that participants' reading speed increased in the post test exercises to the point close enough to the average speeds (101 words) of those experts. P value of Shapiro-Wilk normality test was identified as 0,805 in the pre-test and 0,130 in the post test. Both sets of results show normal distribution. Moreover, the results of t-test point out that there is a meaningful difference in favour of post test results for reading speed [t(29)= -4,016, p<0.000]. Moreover, the loud reading speed average in pre-test exercises increased from 80 words to 89 in post-test exercises.

Results in relation to the second research question

Some key information and data were obtained from 15 participants through semi structured interview about their feelings, thoughts, recommendations and difficulties encountered throughout the experiment.

When participants were asked about whether they have had any prior knowledge about prosodic teaching while 14 (%93, 4) of them answered negative and only one of the participants (%6, 6) expressed that he had some knowledge about prosodic teaching but never participated in any training program previously.

Participants were also asked about the role and impact of teaching aids such as computers and projectors on their learning. All participants stated that they have had positive experiences about computer assisted teaching. They additionally expressed that teaching practices with teaching aids are actually quite fun and enables them to learn more quickly and efficiently. Furthermore, some stated that they can retain knowledge much more easily than other conventional teaching methods. In addition to these points participants said that having seen the features of their own voice such as tone on computer screen and correcting their pronunciations by examining real time voice files were actually a fabulous experience and extremely exciting new experience for them. Through these visual feedback activities integrated with prosodic teaching exercises participants stated that they observed some significant improvement on their pronunciations and effective reading skills such as pause. They finally expressed that they are willing to continue on prosodic teaching with effective visual feedback activities.

On the issue of difficulties and challenges in using Praat voice analyzing program participants confirmed that they had initially some technical difficulties and challenges but in parallel to the frequency of using this program the level of difficulties and issues diminished significantly. Only one of the participants expressed specific difficulties encountered on toning exercises.

Most of the participants provided positive feedback on the conditions of teaching environment and duration of the program. Having said that they also requested that longer teaching program might be more beneficial for acquiring new linguistic skills. Only two of the participants satisfied with the duration of the program completely and did not consider any changes.

Participants pointed out some significant improvement on their reading and speaking skills. For instance, most of the participants claimed that they had better understanding of emotions emphasized in the text and were able to read with correct tone, pause and fluency. For speaking skills participants expressed that they received some positive feedback from their native friends as a result of the significant improvement on their correct and effective pronunciations of words. Finally, they expressed that Prosodic teaching with visual feedback is useful and necessary so that it should be incorporated into TOMER curriculum.

DISCUSSION AND CONCLUSION

In this study, the problem of pronunciation is considered as one of the important problems in foreign language teaching and the effect of pronunciation teaching on oral reading is examined with visual feedback. Learning a foreign language involves learning many different aspects of the language. One of these different aspects is the prosodic feature of language. Therefore, it can be said that one of the most important skills that are aimed to be acquired / gained in the foreign language learning / teaching process is correct pronunciation in the target language. The fact that the phonetic structure of the target language learned differs significantly with the mother tongue makes it difficult for the learners to comprehend the phonetic structure of the target language. This situation necessitates the development of new methods and techniques in the teaching of prosodic units in foreign language learning.

In recent years, there has been a steady increase in the studies on prosodic teaching. The existing literature on the role and impact of prosodic teaching in developing speaking and loud reading skills for foreign language acquisition (e.g., Derwing et al., 1997; Chun, 1989; Pennington, 1999; Taniguchi & Abberton, 1999; Kommissarchik & Kommissarchik, 2000; Derwing &

Rossiter, 2003; Hincks, 2003; Bonneau et al., 2004; Hardison, 2004; Levis, 2007; Demenko et al., 2009; Tanner and Landon, 2009) and this present study share similar conclusions. While the existing literature focused on English and Chinese, the present study is restricted itself specifically teaching Turkish as a foreign language. Taniguchi and Abberton (1999) reported that there was a significant difference in the development of speaking skills between students who received visual feedback and those who did not use this technique. They found that the use of tone marks contributed greatly to the students, and it was extremely difficult to improve students without interactive visual feedback if tone marks were not provided. The results obtained from the study using a control group design and the results of this study using a single group design overlap in terms of the effect of visual feedback on all teaching. Yücesoy (2011) stated that the focus of teaching a language as a foreign language is among the most difficult and late learned units and is one of the issues that are ignored in the teaching process. In this research, the participants were taught with visual feedback of the reference sentences spoken by the experts on the focus order of the Turkish language, and the participants were able to improve their focusing skills by visualizing the focusing activities for the different elements of the sentence. This shows that visual feedback can be used in teaching Turkish as a foreign language in teaching focal types in Turkish.

Praat voice analyzing program which is used in this research is based on the principle of providing part time feedback. However, the current literature on prosodic teaching claims that real time feedback providing systems are far better and effective than part time feedback providing systems in teaching new foreign languages.

This research found that participants made significant improvement on their pronunciation and loud reading skills by practicing intonation, focus and pause exercises with the assistance of visual feedback activities. In all components of prosodic teaching were examined individually in relation to the main research questions. When t tests were applied to each and every component for pre-test and post-test points, the same meaningful difference in favour of post test results was observed. The statistical results have further confirmed the positive correlation and relationship between prosodic teaching with visual feedback activities and acquiring new linguistic skills.

This research found that participant had no prior knowledge about prosodic teaching and its components before the experiment. It would also reached to the conclusion of using teaching aids such as computers and projectors in the classroom make teaching foreign language more effective and allows students retain more information than conventional ways subject to by all means using these aids appropriately. This research also proved that Praat and any other voice analyzing software program would easily be applicable in foreign language teaching as none of the participants reported any difficulty or problem during the exercises.

The results of the study can have implications for foreign language teachers, learners and material developers. Considering that the learning of the structure of the target language for foreign language learners plays an important role in the spoken language and contributes to understanding and comprehensibility, foreign language teachers' use of this model in the lessons can make important contributions to the teaching of prosody. In addition, students can use these materials not only in their classrooms but also on their own computers outside their classrooms. In this way, they can learn the prosody of the target language effectively.

In the other experimental research, it has been found that listening aided pronunciation training has a positive effect on students' speeches. For that reason, in future research a plenty of experimental research may be conducted to compare by using audio visual teaching to one group and audio teaching to the other group. During the interviews, the participants stated that the

activities were positively reflected on their speaking skills. Therefore, similar teaching practices and assessments performed with visual feedback can also be used to improve speaking skills.

Free audio analysis software Praat 6.0.01 was used in the research. Real-time audio analysis software can also be utilized in other research, since the impact of real-time audio analysis programs on the acquisition of computational skills has been identified in addition to Praat.

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