

The Effect of Listening to Music on the Pronunciation of Lower Intermediate Iranian EFL Learners

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Abstract

This study was conducted to investigate whether listening to music has any significant effect on EFL learners' pronunciation at the lower – intermediate level students in Iran. The participants of this study involved 90 adult female and male EFL learners. After giving a Grammar test and a pretest of reading, 60 students based on the resulting homogeneity, were selected as participants in the research. Participants were divided in two equal groups and were randomly assigned as the experimental and control groups. A 12-session treatment was applied for the experimental group, while the control group followed their usual class routine with short stories. The analysis of the data showed that music has significant effect on the pronunciation of Iranian EFL learners.

Key Words: Listening, music, Pronunciation, Learning

1. Introduction

1.1. Pronunciation Background

Teaching pronunciation in the EFL classes of Iran has not been as successful as other areas of language teaching. One reason is that the existing methods lack a comprehensive approach for

teaching the English sounds system adequately (Fatemi, 1999). The present study is intended to investigate a possible solution for this problem. One of the greatest needs in the context of foreign language teaching in Iran is to improve the students' communicative abilities. Since pronunciation has a central role in this regard, there is an urgency to pay special attention to it and try to establish productive methods for enhancing the Iranian EFL learners' pronunciation. Teaching attitudes need to be changed as well.

Suprasegmentals, in comparison with segmental, receive a higher grade in affecting comprehension. First, research evidence shows this superiority. Anderson-Hsieh, Johnson, and Koehler (1992) compared the relative effects prosody, segmental, and syllable structures have on intelligibility. Within 11 different language groups, they found that the overall score for pronunciation was most associated with prosody score. A similar finding was reported by Anderson-Hsieh and Koehler (1990), who concluded that "prosodic deviance may affect comprehension more adversely than does segmental deviance" (p. 562; Cited in Field, 2005, p. 402). As a result of a related study, Derwing, Munro, and Wiebe (1998) came to the point that supra_segmental instruction, comparing with segmental one, had a greater effect on performance in communicative contexts. The second aspect was a methodological one. Studies of L1 listening (e.g. Krashen, 1982) have shown that lexical knowledge plays a crucial role in how a listener digests a group of phonemes, especially where the signal is imprecise.

According to Jennet (2008) "native _like pronunciation of English can no longer be the ultimate goal of teaching", instead, the goal is to achieve "comfortable intelligibility" (op.cit.p.27). The learners' pronunciation must be clear enough to be easily understood by a listener within a defined context. It needs to be understood by both native speakers of English and speakers of other languages who speak English as a second or foreign language as a tool for international communication, otherwise communication breaks down.

One of the successful methods of correcting the students' errors before the fossilization process takes place is using music in the class. Activities for the appropriate use of the authentic materials in the classroom have been created. They respond to the students stated preferences, and they try to engage the students in active learning. All the activities are designed to raise awareness about leading aspects of pronunciation to be acquired through exposure and practice in the context and in a pleasant, relaxing, enjoyable way.

1.2. Purpose of the study

The purpose of this study is to explore learners' verbal awareness while listening to the music and its plausible effects on their EFL pronunciation.

Most of the Iranian high-school graduates have acceptable knowledge of English grammar and vocabulary; nevertheless, they cannot communicate through the language they know. This is because of the unintelligibility of their pronunciation. Unfortunately, "existing methods in teaching English lack a comprehensive pedagogical approach for teaching the sound system adequately" (Fatemi, 1999, p.1). Material developers have recently paid attention to this crucial issue and the latest revisions of the school textbooks contain some parts devoted to pronunciation. However, the problem is that since many of the EFL teachers do not know effective methods for teaching pronunciation, in most language classes, either these parts are skipped or if they are worked on, they do not turn out to be productive.

From all the possible sounds the human speech organs can produce, each language makes a limited selection. The sounds of any language seem natural and easy for the native speakers of that language, but they are strange and difficult for the foreigners. Other units of language, such as words, sentences, and paragraphs are made up of different combinations of sounds (Fatemi, 1999). So, the importance of paying attention to the sounds of a foreign accent is inevitable if the learners attempt to produce English sounds in the same way as they pronounce Persian sounds. An important issue to concentrate on is the issue of the English sounds that do not occur in Persian and the sounds that are pronounced differently in the two languages (Yarmohammadi & Pouretedal, 1996). For example, there are eight diphthongs in English, but one in Persian. It might be useful to remind that “a diphthong is a combination of two vowels in which one serves as the center of the syllable (the nucleus) and the other (the glide) moves into or away from it” (Fatemi, 1999, pp. 6-7). Most Persian speakers insert certain vowel sounds for the diphthongs that do not exist in Persian. For example ‘no’ /nəʊ/ is pronounced /nɔ/ and ‘here’ /hɪə/ becomes /hɪyer/. These phoneme substitutions would either change the meaning of the words or result in some meaningless utterances (Dashtaki, 1990).

From another perspective, the ability to hear the sounds correctly, although may not ensure a correct pronunciation, is inevitably a prerequisite for it. There are two reasons for this statement: first, without hearing a sound correctly, one would not be able to imitate it and second, if one cannot hear his own production, how can he correct himself and improve his pronunciation? This ear training should be an important part of any pronunciation curriculum (Fameti, 1999).

The above-mentioned problems of the Iranian EFL learners and lack of a useful method for removing them, urged the researcher to try to apply a new teaching device which is effective, interesting, and easy-to-use. That teaching device is the use of music in class to achieve educational goals. An optimal characteristic of the music is that it can be used everywhere and with any number of students.

2. Methodology

2.1. Participants

The participants of this study were 90 female and male Iranians, they were adult EFL learners. The general proficiency test, a Grammar test and a pretest of reading, administered at the beginning of the study, showed that their knowledge of the English language was at the lower-intermediate level. 60 students, based on the resulting homogeneity, were selected as participants in the research. Next, they were divided into two equal groups and were randomly assigned as the experimental and control groups.

The participants were not aware of the real purposes of the study, so that their awareness of the fact would not have any effect on the final outcome of the research.

2.2. Sampling

Benefiting from PET Grammar test of Cambridge University and a reading test, the researcher came up with sixty lower-intermediate EFL students as the sample population. Observing the ethical principles, as they were informed that they were not paid to participate in the research, and the whole data would be anonymous and confidential.

2.3. Instrumentation

The followings were the researchers' instruments for gathering the data.

1. A grammar test from Cambridge University, to equate the experimental and control groups according to their general knowledge of the English language.
2. A reading test constructed and validated by the seven Iranian EFL professors applying FOG formula, which estimated the readability of the test, to examine the students' recognition of the English sounds, their stress pattern and intonation.
3. Twelve songs of the book "American English File" as a treatment in experimental group to enhance the students' pronunciation ability with respect to both recognition and production of the English sounds and awareness to intonation and rhythm.
4. Twelve tracks of short stories, presented in, as a part of treatment in the control group.

2.4. Procedure

2.4.1. Instrument Validation

To accomplish the purpose of the study and to test the hypothesis, the following steps were taken:

To determine the effect of listening to music on the pronunciation of Iranian EFL learners at the lower-intermediate level, 90 students were involved in the study. After analyzing the collected data, the extreme scores were left out and the remaining 60 students were considered as the main participants in the study. The participants were divided into two equal groups and were randomly assigned as the experimental and control groups.

At the next stage, the two groups took the pretest which was administered orally. Each student read one of the passages selected from their story book and the lyrics of the songs.

In order to validate the test, 7 EFL university professors were asked to comment on the items. Applying a portion of their viewpoints, the researcher came up with a validated instrument for the research. To assess the level of EFL participants' pronunciation proficiency a 27-year-old American native speaker was invited to listen to the recorded voice considering the criteria of pronunciation rating scale. An EFL teacher did the same to let the researcher apply Inter-rater reliability method for her instrument.

2.4.2. Data Collection

Since Kenworthy (1987) believes that the scores given by the students' own teacher might be affected by the familiarity factor, the voices were also recorded and later scored by an American native speaker of English.

The mean scores of the Iranian and native raters were correlated to estimate the inter-rater reliability of the scores. As the obtained data showed a high correlation, a high inter-rater reliability was approved in the oral scores given by different raters.

The aim of the pretest was not only to confirm the homogeneity of the two groups regarding their pronunciation ability, but to collect data based on their pronunciation before the treatment.

At the next stage, a 12-session treatment was applied for the experimental group. In each session, one of the songs was played during the class, and listening to music took about fifteen minutes. The rest of the class hour was devoted to the routines. In the control group, each session the learners listened to a short story and the traditional methods of teaching English language were followed as before.

Finishing the treatment in the experimental group, the two groups took the posttest. The administration details of this stage were exactly the same as the pretest. The time interval between the pretest and the posttest was long enough more than a month and a half to eliminate the testees' recall, so the same tests were used in both stages. The aim of the posttest was to examine the significance of the difference between scores of the two groups at this phase and to determine the possible effect of the treatment in the experimental group.

2.5. Design

The design to carry out this study was quasi-experimental, according to Hatch & Farhady (1981), is a subcategory of experimental research. It is meant that the amount of effect of EFL learners' listening to music on their pronunciation was sought. According to the nature of study, the following pretest-posttest design was selected by the researcher as the most suitable one:

G1 (random) T1XT2

G2 (random) T1_T2

T1= pretest

T2=posttest

X=treatment

In this design, the pretest (T1) was administered in the two groups to collect data based on their pronunciation power and to select homogeneous subjects.

At the next stage, the treatment was applied for the experimental group, while the control group followed their usual class routine with short stories. Then, the two groups took the post-test. The aim of this stage was to compare the performance of the two groups in this phase and to check null hypothesis.

This study was an attempt to investigate the effect of listening to music on the pronunciation of Iranian EFL learners at the lower-intermediate level, 90 students were involved in the study. After analyzing the collected data, the extreme scores were left out and the remaining 60 students were considered as the main participants in the study. The participants were divided into two equal groups and were randomly assigned to the experimental and control groups. Then, the two groups took the pretest which was administered orally. Each student read one of the passages selected from their story book and the lyrics of the songs of American English book. A reading test constructed and validated by seven Iranian EFL professors applying FOG formula, which estimated the readability of the test, to examine the students' recognition of English sounds, stress pattern and intonation.

The analysis of the data and discussion on the findings of the research are presented below.

3. Results

3.1. Data Analysis and Investigation of Research Questions

3.1.1. Investigation of research Question

This part is going to discuss about whether listening to music has any significant effect on learners. A T-test was run to probe whether listening to music has any significant effect on the participants' pronunciation. The statistical analysis of independent t-test was employed to compare the experimental and control groups' means on the pretest and posttest of pronunciation. Before discussing the results it should be mentioned that the pretest and posttest of pronunciation were measured on an interval scale and the subjects' performances on the tests were independent. The assumption of normality was also met.

Table 3.1

Testing Normality Assumption

Group		N	Skewness			Kurtosis		
			Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Experimental	Pretest	30	.801	.427	1.87	-.001	.833	-.001
	Posttest	30	.148	.427	.346	-.663	.833	-.795
Control	Pretest	30	.140	.427	.327	-.891	.833	-1.06
	Posttest	30	-.097	.427	-.227	-.568	.833	-.681

According to Table 3.1 the ratios of skewedness and kurtosis over their respective standard errors were within the ranges of +/- 1.96.

Table 3.2

Descriptive Statistics; PET

	N	Mean	Std. Deviation	Variance
PET	90	33.00	14.041	197.146

Table 3.2 Demonstrates that The PET test was administered to the 90 subjects. Based on the mean of 33 plus and minus one standard deviation (SD = 14.04), 60 subjects were selected to participate in the main study.

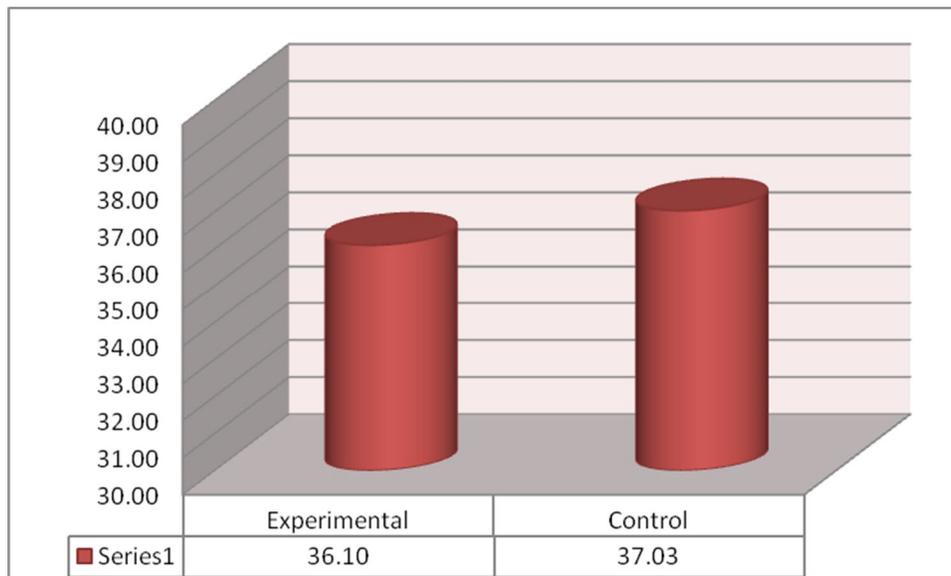
Table 3.3

Descriptive Statistics; PET by Groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	30	36.10	8.376	1.529
Control	30	37.03	6.995	1.277

Table 3.3 is about the results of the independent t-test ($t(58) = .46$, $P > .05$, $r = .06$ it represented a weak effect size) indicate that there was not any significant difference between experimental and control groups' mean scores on the PET. Thus it can be concluded that the two groups enjoyed the same level of general proficiency prior to the main study.

Graph 3.1: PET by groups



Graph 3.1 demonstrates an independent t-test is run to compare the experimental and control groups' mean scores on pretest of pronunciation in order test if the two groups enjoyed the same level of Pronunciation ability prior to the main study. As displayed in Table 2 the experimental ($M = 20.43$, $SD = 3.68$) and control ($M = 21.70$, $SD = 4.30$) groups showed almost the same means on the pretest of Pronunciation.

Table 3. 4

Descriptive Statistics Pretest of Pronunciation

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	30	20.43	3.683	.672
Control	30	21.70	4.308	.787

Table 3.4 shows the results of the independent t-test ($t(58) = 1.22$, $P > .05$, $r = .15$ it represented a weak effect size) indicates that there was not any significant difference between experimental and control groups' mean scores on the pretest of pronunciation. Thus it can be concluded that the two groups enjoyed the same level of Pronunciation ability prior to the main study.

Table 3. 5

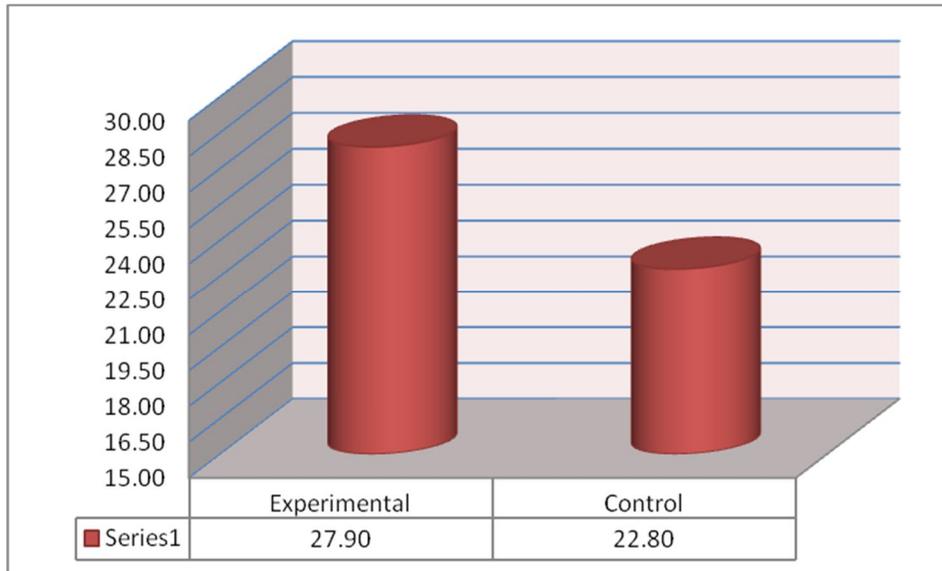
Descriptive Statistics Posttest of Pronunciation by groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	30	27.90	4.003	.731
Control	30	22.80	3.827	.699

As displayed in Table 3.5 the experimental group ($M = 27.90$, $SD = 4$) outperformed the control group ($M = 22.80$, $SD = 3.82$) on the posttest of Pronunciation.

The results of the independent t-test ($t(58) = 5.04$, $P < .05$, $r = .55$ it represented a large effect size) indicates that there was a significant difference between experimental and control groups' mean scores on the posttest of pronunciation. Thus it can be concluded that the null-hypothesis as listening to music does not have any significant effect on Iranian intermediate EFL learner pronunciation ability **was rejected**.

Graph 3.2: Posttest of Pronunciation by groups



Graph 3.2 shows a significant difference between experimental and control groups' mean scores on the posttest of pronunciation.

Table 3.6

Inter-Rater Reliability

		PretestR	PosttestR2
PretestR1	Pearson Correlation	.855**	
	Sig. (2-tailed)	.000	
	N	60	
PosttestR1	Pearson Correlation		.864**
	Sig. (2-tailed)		.000
	N		60
**. Correlation is significant at the 0.01 level (2-tailed).			

According to table 3.6 the subjects' pronunciations on the pretest and posttest were rated by two raters. The Pearson correlation was run to probe the inter-rater reliability of the two ratings. Based on the results displayed in Table 3.6 it can be concluded that;

A: There was a significant agreement between the two raters who rated the subjects' pronunciation on the pretest ($r = .85$, $P < .05$, it represented a large effect size).

B: There was a significant agreement between the two raters who rated the subjects' pronunciation on the posttest ($r = .86$, $P < .05$, it represented a large effect size).

Construct Validity

A factor analysis was run to probe the construct validity of the pretest and posttest of pronunciation. The SPSS extracted one factor which accounted for 75.93 (Table 2) percent of the total variance.

Table 3. 7

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.519	75.934	75.934	1.519	75.934	75.934
2	0.481	24.066	100.000			

Based on the results displayed in Table 3.7 it can be concluded that both pretest and posttest of pronunciation measured the same underlying construct, hence their validity.

4. Discussion

4.1. Limitation and further research

In the process of performing this research, the researcher came up with new ideas that can be adapted by investigators who are interested in the related topics. Some suggestions are presented below:

1. It would be a good idea to investigate the role of music on improving the effect of music on the students' writing skill can also be researched.
2. Similar studies can be done regarding learners' speaking skill.
3. The above Iranian EFL learners' reading skill.
4. Mentioned areas of research might be followed regarding different age groups of both genders.

The main limitation faced by the researcher was lack of a valid test of pronunciation to be used as the pretest and posttest. This made the researcher ask each participant to have a reading task.

4.2. Implications

This study investigated whether there is any effect of listening to music on EFL learners' pronunciation. The findings of the present study indicate the possibility of a new, useful, and interesting method for teaching pronunciation to the Iranian EFL students. Therefore, to enrich the related literature, the educational researchers are advised to replicate this study in larger groups and in various contexts. It means that the present findings bring about some theoretical contributions to the literature.

Music enables the teacher to monitor the class all the time and also to remove the students' error before they are fossilized. The students are naturally interested in music, so the use of it in class motivates them and maintains their attention to the material. Most of the learning that takes place during listening to the music is unconscious, so it will have more long lasting effects. In fact, music has a positive influence on memory and allows for a better retention. An important aim for any language teacher is to provide a class atmosphere in which all the students are interested in learning, pay attention to the presented subjects, and cooperate with each other to learn better.

The central problem, for which the present research was to find an effective way to promote the students' pronunciation ability.

It was firmly proved that listening to music could be used as a fruitful method for teaching pronunciation to the Iranian EFL learners and enhancing their intelligibility during conversation. In our country, the recent aim of teaching foreign languages is to promote communication between Iranians and the other nations.

Teachers can use music as a reward for the students who have worked cooperatively during boring drills in class and need a final relaxation. This will also enable the students to observe the usage of what they have learnt in a communicative and realistic setting. No matter how energetic and active a teacher might be, (S) he is bound to encounter some lapses of concentration and interest in the learners. A short, lively piece of music would be a good way to revive the class and enhance the student's willingness to learn more.

5. Conclusion

To find the possible effect of listening to music on the pronunciation of EFL learners, t-test analysis was run. The outcome of the present study appears compatible with the finding of Richards (1989, p.109) "music, rhythm, and movement...create a link between the right brain's processing of music and rhythm and the left brain's processing of verbal information".

Regarding the degree to which the EFL learners' pronunciation got affected by listening to music, as perceived in table 3.5, there was a significant difference between experimental and control groups' mean scores on the posttest of pronunciation. Thus, it can be concluded that music had significant effect on EFL learners' pronunciation ability.

Beaton (1995) states, Music can empower students with a real world communicative advantage; therefore one has examples of authentic speech that is slowed, rhythmic, and repetitious. A powerful tool to impress upon the individual learning experience. As Baker (1981) states, to develop a lesson plan around a song that can be an avenue to teach grammar, phonetics, culture, geography, etc. If we can employ a song with enough resilience to stick in the mind long enough for students to experience success with certain language structures, learn a feature of the target culture, or achieve listening enjoyment and thus desire more language opportunities, the use of songs in the EFL classroom can make learning more enjoyable and interesting. At the same time, students acquire the target language and feel comfortable in a relaxing atmosphere. This helps them lower their affective filter, and become more receptive to learning. In addition, songs help learners improve their understanding and production of important pronunciation features. Finally, teachers should choose the songs such as the students' level, age and preferences, as well as the level of difficulty of the song and its rhythm. Then we will have accomplished the goals stated in national foreign language content standards.

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