The Effect of English Verbal Songs on Connected Speech Aspects of Adult English Learners' Speech Production

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Abstract

The present study was an attempt to investigate the impact of English verbal songs on connected speech aspects of adult English learners' speech production. 40 participants were selected based on the results of their performance in a piloted and validated version of NELSON test given to 60 intermediate English learners in a language institute in Tehran. Then they were equally distributed in two control and experimental groups and received a validated pretest of reading aloud and speaking in English. Afterward, the treatment was performed in 18 sessions by singing preselected songs culled based on some criteria such as popularity, familiarity, amount, and speed of speech delivery, etc. In the end, the posttests of reading aloud and speaking in English were administered. The results revealed that the treatment had statistically positive effects on the connected speech aspects of English learners' speech production at statistical .05 level of significance. Meanwhile, the results represented that there was not any significant difference between the experimental group's mean scores on the posttests of reading aloud and speaking. It was thus concluded that providing the EFL learners with English verbal songs could positively affect connected speech aspects of both modes of speech production, reading aloud and speaking. The Findings of this study have pedagogical implications for language teachers to be more aware and knowledgeable of the benefits of verbal songs to promote speech production of language learners in terms of naturalness and fluency.

Keywords: English Verbal Songs, Connected Speech, Speech Production, Reading Aloud, Speaking

1. Introduction

Taking the advantages of music can generate an ideal atmosphere for language learning since songs can link the brain's hemispheres and make the retention more durable due to the supplementary functions as the right hemisphere acquires the melody while the left deals with the words. More generally, music in language teaching provides a rich-sounding atmosphere. This adumbrates that the musical approach is, at least, a possible educational option, which can strengthen the EFL learners' awareness of rhythm, sounds etc. Teachers can benefit this axiom that "all normal (non-brain-damaged) people possess some musical intelligence" (Gardner, 1985, cited in Fonseca-Mora, Toscano-Fuentes & Wermke, 2011, p.105), which assists learners in acquiring oral language capacities. Falioni (1993) also states, "Many people often remember rhyme, rhythm, and/or melody better than ordinary speech" (ibid. p.98). Through utilizing songs in the classroom "students concentrate on messages and ideas as they would in their native language" since "they are doing something with language: they are participating actively in the game called communication" (Murphey, 2010, p.242). In addition to getting familiar with cultural and linguistic elements, EFL learners, through listening to the songs and singing them can improve their listening and speaking skills in terms of foreign language sensitivity and awareness of phonology, which are the essential capacities necessary for a near-native-like communication.

Considering the paucity of research on the use of songs as a pedagogical tool in foreign language classrooms, the present study aimed at investigating the effect of English verbal songs on the connected speech aspects common in both singing and speech production in two speech modes of reading-aloud and speaking. Hence, an empirical study was conducted to measure specific benefits of songs on connected speech aspects and reduced forms.

2. Review of Literature

With a view to the comparison of acquiring music and speech, we must consider the correspondences between speech and music. Jean-Jacques Rousseau (1781) proposed that languages stemmed from music. According to him, music was a method of expressing feelings for the people inhabiting in warmer climates and without stress, and in the opposite side, sound and meaning split, and language turned out more symbolic for the people living in colder regions where life needed to be more organized. Graham (1969) describes foreign accent as being emerged from "speaking one language with the music of another, usually of one's mother tongue" (p. 446). Music and oral language production are of the same

phenomena and thus possess some common features that can be used in second language teaching methods: the rhythm and melody of the music could be considered tantamount to stress and intonation (Arleo, 2000). Music and language can be divided into a hierarchical structure: in music, the whole structure goes from the larger constituent of a musical composition to the individual note, and in language, from the large units of discourse to the phonemes. Another resemblance, suggested by Arleo, is that "they follow a time line. The temporality of music, spoken language and other kinds of performances such as plays, poetry readings and dance, provides social cohesion by tying the participants together in a bounded collective experience" (Arleo, 2000, p.7).

Deutsch (1991) demonstrated that there is a connection between perceiving musical sounds and linguistic background. The notes, which were used in Deutsch's experiments, were elaborate tones bearing all octaves or a basic frequency. Twelve basses existed in all associating with the twelve notes of the chromatic scale. Notes were presented in pairs whose fundamentals were separated via tri-tones (six semitones or one-half octave). Participants were requested to recognize which of two tones had the higher basic frequency (pitch). It is noticeable that those from England perceived frequency values differently from participants from California. "If a Californian thinks that a C is above an F sharp, the Britisher will swear that F sharp is higher than the C (Seife, 2000, p. 2052).

Another reason, which demonstrates that there is a connection between music and language, is Amusia — "an inability to perceive music... (Balter, 2001, p. 1636). In the study, they did on the adults who were suffering from Amusia, Peretz et al. (1998) they showed that the mere reason correlating with this musical deficiency is a trouble in perception of pitch variations within speech. As a result, in case of an inability to realize music forecasts a problem in perception of speech, so there will be a correlation between perceiving music and speech.

2.1 Music and Language Class with a Focus on Research

Numerous authors (Foster, 1993; Guglielmino, 1986; Karimer, 1984; Lowe, 1998; Olhaver, 1998) states the merits which music holds and could be used in the classroom such as music for relaxation, concentration, motivation, cultural awareness, vocabulary acquisition, ear training and pronunciation. On the contrary of the endeavors done by language teachers for creating some varieties in their classes, high number of classes consist of drills, short dialogues and repetition. Guglielmino (1986, p.19) asserts, "ESL instruction, regardless of its focus, involves a great deal of drill and repetition". Since music provides pleasant repetitions in an enjoyable manner, it holds a great significance in a language class (Guglielmino, 1986).

Music and specially songs help learners, either possessing musical aptitude or not, to acquire words and sounds in an enjoyable manner. Language learners, regardless of their age, can always benefit the merits of the songs in or out of the classroom by singing and repeating them to improve their vocabulary and pronunciation. Some methods, such as Suggestopedia (Bancroft, 1982) and the method of Tomatis (Tomatis, 1991), take advantages of music to elevate relaxation and allow the learners to learn more efficiently. Other methods, such as the Contemporary Music Approach (Anton, 1990) and the KELP project (Johnson al., 1995), explore pop songs to encourage, motivate the students, and provide a more bustling and active ambience in the classroom.

Anton (1990) describes how the CMA (Contemporary Music Approach) uses songs in a Spanish classroom as an effective tool for memory.

> CMA takes advantage of music - one of the most effective memory aids available to us. Through the songs, students learn rhythm, intonation, and pronunciation in a natural way as they listen to the music repeatedly and then attempt to reproduce the sound they hear (Anton, 1990, p. 1169).

2.2 Music, Pronunciation, and Research

Most adults learning a foreign language usually speak along with an accent, which is derived from phonetic and phonological disparities between their first language and the second language. Music and songs could be fruitful in honing phonetic skills in various ways. Leith (1979) stated, "There is probably not a better, nor quicker way to teach phonetics than with songs" (p. 540). Gatti-Taylor (1980) believed that phonetic instruction could be both easy and enjoyable, stating, "It is relatively easy to find song lyrics that stress a particular phoneme" (p. 466). García-Sáez (1984) agreed stating, "the use of song is an excellent way to practice Spanish phonetics and it is not at all difficult to find examples of songs that contain sounds the majority of students have trouble producing" (p. 4). The melody, composed with the lyrics, creates an excellent opportunity to review pronunciation and appreciate the song simultaneously. Poliquin (1988) accentuates the value and positive penetration of songs in language instruction that should be used perceptively to enhance pronunciation skills. He reiterates that comprehending the semantic issues is monitored by the left hemisphere and musical sounds and rhythms by the right. He advised the pedagogical benefits of using songs to develop cognitive skills to show the connection of rhythm of spoken language and song rhythm. Karimer (1994) did a study on ESL learners to find out if acquiring a native-like fluency could be faster and better through using nursery rhymes, chants, and songs.

Thain (2010) emphasizes the use of songs in lessons since songs help developing the four skills and believes that songs bring about activation of both sides of the brain.

Many scholars have found euphoric correspondences between songs and memory: Murphey (1990) defines the 'song-stuck-in-my-head' phenomenon as a melodic Din like a voluntary musical and verbal rehearsal. Falioni (1993, p. 98)

asserts, "Many people often remember rhyme, rhythm and/or melody better than ordinary speech", particularly when the content is important for them.

Crookes and Schmidt (1991) realized four motivational elements in foreign language learning including interest in the lesson, relevance, expectation, and satisfaction. Moreno et al. (2009) studied the effects of music on learners' language development and found that exercising musical tasks for even a short duration could positively influences the ability to perceive and differentiate individual phonemes of the language. Music training enhances aural skills (Kraus & Chandrasekaran, 2010) as well as verbal memory (Chan & Cheung, 1998). Kids having a weak phonemic intelligence in first language (Ehri et al., 2001) revealed lower levels of progress respecting learning of foreign languages (Hu, 2003).

Another remarkable element to be considered is cultural sensitivity because songs usually represent cultural elements. Abbott (2002, p. 10) suggests, "cultures have musical traditions because of the enjoyment people receive from creating rhythms and expressing their feelings, ideas, thoughts, and cultural values through lyrics". Songs are one of the sources of cultural and linguistic items with respect to second or foreign language learning. Many factors such as attitudes towards the country where the language is spoken, its culture and customs are influential in acquisition of that language. When the learners of that language are out of that country, songs put an enjoyable and effective way to introduce the culture and encourage students (Murphey, 2010).

2.3 Songs and Connected Speech

Griffee (1995, p.28)asserts that "connected speech is the natural way we speak, linking together and emphasizing certain words, rather than each word standing alone". On the opposite of the importance role of connected speech in spoken English, it is not as authentic as reality in English lessons. "Many learners are accustomed to hearing a very careful, clear pronunciation of words, such as native speakers might use when talking very emphatically or saying words in isolation" (Rixon, 1986, p. 38). This is while native speakers connect the words and sounds in their speech.

The other misunderstanding is that learners usually consider contractions as incorrect and used in slang. However, as said before, native speakers utter the words purposefully in divisions to emphasize and this means that connected speech is a natural and normal occurrence in their spoken language. Songs assist learners to exercise through providing actual and catchy examples of pronouncing whole phrases to the extent that they prefer it than uttering separated as individual words. Brown and Kondo-Brown (2006a) mention that connected speech makes up "a very real part" (p. 5) of the spoken language and occurs in "all levels of speech" (p. 5) from casual to even very formal levels.

Dauer and Browne (1992) contend that enabling the speaker to not only improve his/her intelligibility by making the total rhythm of speech better but also causing psychological relief and confidence are of benefits of producing connected speech which makes speech more natural. Non-existence of connected speech could engender the speech of a non-native speaker sounds choppy and unnatural and discourage the listener (Brown, 2001; Celce-Murcia et al., 1996).

Ito (2006b) describes the way speakers of other languages agree on the difference of connected speech from what they usually have heard in their language classes before. Because the spoken language of the teacher and audio materials are slowly articulated. Accordingly, exposing and inspiring the learners with abundance of connected speech through songs could be an effective, simple, and enjoyable manner.

In the teaching pronunciation premiere, many pronunciation textbooks are increasingly covering and introducing the issues of connected speech (e.g., Hagen, 2000; Weinstein, 2001). Connected speech is a phenomenon to be occurred in spoken language and includes phonological processes such as reduction, elision, assimilation, and contraction. Many research studies demonstrated that instructing connected speech can assist learners in comprehension of speeches with rapid delivery (e.g., Brown & Hilferty, 2006; Celce-Murcia, Brinton, & Goodwin, 1996; Matsuzawa, 2006). More importantly, exercising features of connected speech can help non-native speakers to have a more natural and comprehensible speech with less marked foreign accent (Brown & Kondo-Brown, 2006; Dauer& Browne, 1992). Although compared to the literature of connected speech that is on a growth about the ways and forms to be taught, there is not enough information on how to manipulate the connected speech in terms of production.

In comparison to the studies done on connected speech and perception, not many studies have worked on the connected speech in terms of production to find ways to make spoken language more natural and fluent phonologically, and to see if it could be taught and enhanced via a musical instruction such as singing songs. More studies that are comprehensive are needed to investigate the effect of songs on connected speech aspects of speech production of language learners. The present study might be considered significant as it attempted to bridge this gap in the literature.

3. Research Questions

The present study intends to investigate the effects of English verbal songs on connected speech aspects of English learners' speech production. As such, the following research questions are raised:

> *Q1: Do English verbal songs have positive effects on the connected speech aspects of adult English learners' speech production at .05 statistical significant level?*

> *Q2: On which speech production mode; reading-aloud or speaking, do English verbal songs have more positive effects in terms of connected speech aspects at .05 statistically significant level?*

4. Method

In an attempt to investigate the effect of English verbal songs on connected speech aspects of adult English learners' speech production, a detailed description of participants, instrumentation, procedure, design, and statistical analysis of the study would follow.

4.1 Participants

The participants of the study were forty adult intermediate level male students with the age range of 18 to 25 at a language institute in Tehran. These participants were chosen from 60 intermediate students attending English conversation classes according to their performance on a sample NELSON test, which was first piloted with 30 students with similar characteristics to the main participants of the study in order to check its reliability, and then the test was administered.

The students who did not meet the criterion also were allowed to participate in the study, but their scores were not included in the related analyses of the study. The selected participants were divided into two groups: One experimental group and one control group with 20 students in each, consisting of 20 students in each class. All the participants had studied English courses in the public school system requiring uniformity all over the country. Therefore, the researcher's expectation in terms of the learners' language proficiency level was met to a high extent, as they did not differ so much in this regard.

4.2 Instrumentation

The data for the present study was collected by means of three tests: a NELSON, a pre and posttest of reading-aloud, and a pre and posttest of speaking.

The speaking test used as pre and posttests was selected from the sample-structured interview questions of the intermediate speaking test of TESOL developed, validated, and presented by Lancaster University available at www.lancaster.ac.uk/fass/projects/.../InterviewQ.pdf. The participants' voices in both pre and posttests of speaking were recorded and rated by two raters, the researcher himself and a PhD student of TEFL who had studied and lived in England for years and had been teaching English in university. The raters scored the participants' performances based on the band descriptor provided for rating connected speech features. The texts used for pre and posttests were the intermediate reading comprehension texts selected from http://www.boostyourenglishscore.com. At first, a pretest of reading-aloud skill was given to the participants in both control and experimental groups. This task was to assess the oral presentation of a written text (reading-aloud skill) in a way that the participants in each group were given an identical passage appropriate to their level and had a couple of minutes to take a glance at it. Then they read it aloud and their voices were recorded. For the posttest, the same text in the pretest was given to the participants to be read aloud and recorded again. The participants' voices in both pre and posttests of reading-aloud were recorded and rated by the two raters using a band descriptor of the four connected speech aspects under the study prepared by the researcher.

4.3 Procedure

4.3.1 Pretest Phase

The first phase in the pretest section was the pilot study during which 30 intermediate students with similar features to the target sample took the sample NELSON test used for homogenizing. In the second phase of the pretest section, the participants were selected. Next, the pilot NELSON was administered to 60 intermediate students to homogenize them regarding their general English proficiency. Out of 60 students, 40 students whose scores had fallen one standard deviation above and below the mean shaped the main participants of the study. The selected participants were randomly assigned to the two groups, an experimental and a control group with 30 students in each. It is worth mentioning that, due to the nature of the convenient non-random sampling of the samples, the eliminated students were attending the classes, but their scores on the pre, and posttests were not included in the study. In the third phase of pretesting, the participants of the study in both groups took the pretests of reading-aloud and speaking.

4.3.2 Intervention Phase

The intervention took 18 sessions. The whole term included seven weeks and the learners attended the classes three days a week, each session lasting for 90 minutes in both groups. Considering the fact that the syllabus of the language school had to be covered during the term, eighteen sessions were allocated to the experiment in the experimental group. Therefore, the classes of control and experimental groups received the same hours of instruction and practice. In addition, the researcher himself taught both groups. Furthermore, listening and speaking practices based on the activities of the textbook (American English File) were used for both groups.

In the experimental group, at the end of each two sessions, one song was worked out. Accordingly, 9 songs were practiced altogether. Teaching new grammar or lexis contained in the text was not the goal as merely working on some aspects of phonology was addressed. Although the meaning of the text was explained orally in the target language in order for a better connection with the song, but they were not translated or explained in the learners' L1.

The control group was taught through the instructional conversations that arose between teachers and learners during the normal classroom pedagogical activities. In this group, there was no specific focus on songs to make the learners sensitive to the pronunciation of the words. Unlike the experimental group in which the teacher used the songs and their respective listening strategies, the control group was not exposed to songs. Instead, the learners dealt with routine practices of listening comprehension and speaking, sound perception, and meaning orientation. The learners were

supposed to listen to the texts and answer the questions or repeat what they had heard. In addition, the learners worked on the vocabulary they heard in the listening texts. The pronunciation, intonation, and diction were also taken into consideration.

4.3.3 Posttest Phase

At the end of the treatment and the term, the posttests of reading-aloud and speaking were administered to the two groups to see if there were any significant differences in their respective abilities. Two raters scored the participants' performances on both tasks and the data gathered was analyzed using SPSS version 21, the results of which will follow.

5. Data Analyses and Results

5.1 Testing Assumptions

The present data were analyzed through the parametric tests of independent, paired-samples t-test, and multivariate ANOVA, which are based on four main assumptions of interval data, independence of subjects, normality, and homogeneity of variances. The first two assumptions do not have a statistical test. The data are measured on an interval scale and the subjects performed on the tests independently. The normality assumption was met. As displayed in Table 1 the ratios of skewedness and kurtosis over their respective standard errors were within the ranges of +/- 1.96.

Table 1. Testing Normality Assumption

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
	NELSON	20	-.107	.512	-0.20	-.979	.992	-.986
	PreRA	20	-.058	.512	-0.11	.133	.992	0.13
	PostRA	20	-.579	.512	-1.13	-1.047	.992	-1.06
Experimental	PreSP	20	-.104	.512	-0.20	-.059	.992	-0.06
	PostSP	20	-.927	.512	-1.81	1.207	.992	1.22
	Valid N (listwise)	20						
Control	NELSON	20	.508	.512	.992	-1.143	.992	-1.14
	PreRA	20	.270	.512	0.53	-1.091	.992	-1.10
	PostRA	20	.612	.512	1.20	-.828	.992	-0.83
	PreSP	20	.810	.512	1.58	.494	.992	0.50
	PostSP	20	-.699	.512	-1.37	1.213	.992	1.22
	Valid N (listwise)	20						

Note. PreRA = Pretest of Reading Aloud, PreSP = Pretest of Speaking

The assumption of homogeneity of variances will be discussed when reporting the results of the independent t-test and MANOVA.

5.2 Pretest of Reading-aloud

An independent t-test was run to compare the Experimental and control groups' mean scores on the pretest of reading aloud in order to show that both groups were at the same level of reading-aloud ability prior to the administration of the treatment. As displayed in Table 2, the experimental (M = 71.25, SD = 7.43) and control (M =71.28, SD = 5.92) groups showed almost the same means on the pretest of reading aloud.

Table 2. Descriptive Statistics Pretest of Reading-aloud by Groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Control	20	71.28	5.928	1.326
Experimental	20	71.25	7.438	1.663

The results of the independent t-test (t (38) = .012, P > .05, R = .002) representing a weak effect size) (Table 3) indicated that there was not any significant difference between the two groups' mean scores on the pretest of reading-aloud. Thus, it can be concluded that they enjoyed the same level of reading-aloud ability prior to the administration of the treatment.

Table 3. Independent t-test Pretest of Reading Aloud by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.482	.492	.012	38	.991	.025	2.127	-4.281	4.331
Equal variances not assumed			.012	36.198	.991	.025	2.127	-4.288	4.338

It should be noted that the assumption of homogeneity of variances was met (Levene's F = .482, p > .05). That is why the first row of Table 3, i.e. "Equal variances assumed" was reported.

5.3 Pretest of Speaking

An independent t-test is run to compare the Experimental and control groups' mean scores on the pretest of speaking in order to show that both groups were at the same level of speaking ability prior to the administration of the treatment. As displayed in Table 4the experimental (M = 54.90, SD = 3.23) and control (M = 54.63, SD = 4.14) groups showed almost the same means on the pretest of speaking.

Table 4. Descriptive Statistics Pretest of Speaking by Groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Control	20	54.63	4.142	.926
Experimental	20	54.90	3.239	.724

The results of the independent t-test (t (38) = .234, P > .05, R = .038 representing a weak effect size) (Table 5) indicated that there was not any significant difference between the two groups' mean scores on the pretest of speaking. Thus, they must have been at the same level of speaking ability prior to the administration of the treatment.

Table 5. Independent t-test Pretest of Speaking by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.934	.340	.234	38	.816	.275	1.176	-2.105	2.655
Equal variances not assumed			.234	35.912	.816	.275	1.176	-2.110	2.660

It should be noted that the assumption of homogeneity of variances was met (Levene's F = .964, P > .05). That is why the first row of Table 5, i.e. "Equal variances assumed" was reported.

5.4 Answers to the Research Questions

Research Question 1: Do English verbal songs have statistically significant positive effects on the connected speech aspects of adult English learners' speech production?

A multivariate ANOVA (MANOVA) was run to investigate the effect of English verbal songs on the connected speech aspects of adult English learners' speech production (reading-aloud and speaking). Before reporting the main results, it should be noted that the assumption of homogeneity of variances – as tested through the Levene's F-values – and the assumption of homogeneity of covariance – as tested through the Box's test – are met. As displayed in Table 6, the

probabilities associated with the Levene's F-values are all higher than .05. Thus, the assumption of homogeneity of variances is met.

Table 6. Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
PostRA	1.456	1	38	.125
PostSP	1.219	1	38	.276

Besides, showing homogenous variances, the groups should have homogenous covariance matrices. The Box's M-value of 5.97 was not significant (P > .05). Thus, the assumption of homogeneity of covariance matrices was also met.

Table 7. Box's Test of Equality of Covariance Matrices

Box's M	5.972
F	1.877
df1	3
df2	259920.000
Sig.	.131

Based on the results displayed in Table 8, it can be said that English verbal songs had significant effects on the connected speech aspects of adult English learners' speech production (F (2, 37) = 186.07, P < .05, Partial η2 = .91 representing a large effect size). Accordingly, the first null-hypothesis was rejected.

English verbal songs had statistically significant positive effects on the connected speech aspects of adult English learners' speech production.

Table 8. Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.998	10394.580	2	37	.000	.998
	Wilks' Lambda	.002	10394.580	2	37	.000	.998
	Hotelling's Trace	561.869	10394.580	2	37	.000	.998
	Roy's Largest Root	561.869	10394.580	2	37	.000	.998
Group	Pillai's Trace	.910	186.074	2	37	.000	.910
	Wilks' Lambda	.090	186.074	2	37	.000	.910
	Hotelling's Trace	10.058	186.074	2	37	.000	.910
	Roy's Largest Root	10.058	186.074	2	37	.000	.910

As displayed in Table 9, the experimental group's means on Reading-aloud (M = 84.77) and speaking (M = 87.75) were significantly higher than thos of the control group (76.85 and 61.75). These results suggest that the English verbal songs improved connected speech aspects of adult English learners.

Table 9. Descriptive Statistics

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
PostRA	Experimental	84.775	1.352	82.039	87.511
	Control	76.850	1.352	74.114	79.586
PostSP	Experimental	84.750	.844	83.041	86.459
	Control	61.750	.844	60.041	63.459

Research Question 2: On which speech production mode; reading-aloud or speaking, do English verbal songs have more significantly positive effects in terms of connected speech aspects at .05 statistical level ?

A paired-samples t-test was run to compare the Experimental group's mean scores on the posttests of reading-aloud and speaking in order to probe the second research question. As displayed in Table 10, the experimental group showed almost the same means on posttest of reading-aloud (M = 84.78, SD = 7.15) and posttest of speaking (M = 84.75, SD = 4.38).

Table 10. Descriptive Statistics Posttests of Reading Aloud and Speaking

	N	Mean	Std. Deviation	Std. Error Mean
Reading Aloud	20	84.78	7.157	1.600
Speaking	20	84.75	4.387	.981

The results of the paired-samples t-test (t (19) = .031, P > .05, R = .009 representing a weak effect size) (Table 11) indicate that there was not any significant difference between the experimental group's mean scores on the posttests of reading-aloud and speaking. Thus, the second null-hypothesis is approved.

Table 11. Paired-Samples t-test Posttests of Reading Aloudand Speaking

Paired Differences					t	df	Sig. (2-tailed)
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
.025	8.328	1.862	-3.873	3.923	.013	19	.989

5.5 Construct Validity

A factor analysis was run to probe the construct validity of the tests employed in this study. The SPSS extracted two factors, which accounted for 66.93 percent of the total variance.

Table 12. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.155	43.103	43.103	2.155	43.103	43.103	1.960	39.191	39.191
2	1.192	23.833	66.936	1.192	23.833	66.936	1.387	27.745	66.936
3	.798	15.969	82.904						
4	.790	15.804	98.708						
5	.065	1.292	100.000						

Extraction Method: Principal Component Analysis.

Table 13 below displays the factor loadings of the tests under the extracted factors:

Table 13. Rotated Component Matrix

	Component	
	1	2
PostRA	.934	
PreRA	.891	
NELSON	-.426	-.393
PreSP		.772
PostSP		.754

5.6 Inter-Rater Reliability Indices

There was a significant agreement between the raters on rating; pretest of reading-aloud (r (38) = .97, P < .05), posttest of reading-aloud (r (38) = .61, P < .05), pretest of speaking (r (38) = .97, P < .05) and posttest of speaking (r (38) = .85, P < .05).

Table14: Inter-Rater Reliability Indices

		PreRAR2	PostRAR2	PreSPR2	PostSPR2
PreRAR1	Pearson R	.977[**]			
	P	.000			
	N	40			
PostRAR1	Pearson R		.610[**]		
	P		.000		
	N		40		
PreSPR1	Pearson R			.971[**]	
	P			.000	
	N			47	
PostSPR1	Pearson R				.853[**]
	P				.000
	N				49

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

6. Discussion

The findings of the present study suggest that English verbal songs have statistically significant positive effects on the connected speech aspects of adult English learners' speech production. Meanwhile, there was not any significant difference between the experimental group's mean scores on the posttests of reading-aloud and speaking. Thus, it can be argued that there is no significant difference between improvements in reading-aloud and that in speaking considering the amount of received positive effects from English verbal songs.

The findings of the study are in line with the findings of other studies claiming that employing music in second language teaching has proved effective in general. Murphey (2010) argues that listening to songs and singing them improves listening and speaking skills. Employing music and songs enrich sensitivity and awareness to issues of phonology in a foreign language, the essential capacities necessary for a near-native-like communication (Falioni, 1993). Previous findings on the effect of having more access to songs in English and music in the ESL classroom vastly support the findings (Cormier's, 1985; Eckman, et al, 2014; Gatti-Taylor, 1980; Karimer, 1994; Knight, 2012; Lyczak, 1979; Medina, 1990; Salcedo, 2010). In a study done by Fitzgerald (1994), after a study of 23 Spanish students in an English bilingual program where they had to sing in either Spanish or English from the outset, he found that the participants' pronunciation, their reading skills, and participation all benefited. Furthermore, Moreno et al. (2009) found that "musical training influences linguistic abilities" (p.720) and Murphey (2010) found that using music and songs were more apt to facilitate the process of listening comprehension than the ordinary teaching of this skill. According to Arnold (1999), "we learn better that which attracts our attention, and emotion automatically makes us pay attention". This is what exercising songs do in a language-learning program.

Thain (2010) also found that listening to songs could facilitate the development of the four skills, activation of hemispheres, memory, motivation, and cultural sensitivity. This supports the second finding of the present study stressing the point that both speaking and reading-aloud of the learners could be positively affected. In an almost similar study, Slevc and Miyake (2006) found that those adult students with more advanced musical aptitudes spoke English with better pronunciation than those with less developed aptitudes. This is relatively what we tried to do in this study. Using and developing the musical intelligence of the learners described in the theory of multiple intelligences by Gardner (1983), in a couple of purviews related to our study such as sound and rhythm sensitivity and connection of the words in order to attain a more fluent and natural speaking and reading-aloud. Moreover, the classroom discussions with the learners and the findings of the present research show that singing songs in English highly affected their pronunciation and connected speech.

7. Conclusion

The outcome of the posttest data analysis clarified that the participants receiving English verbal songs as a partial recreational activity in surface but a pedagogical activity in depth, significantly outperformed the subjects in the control group. Therefore, it is generalized that receiving English verbal songs and its related strategies significantly affect the connected speech and pronunciation of Iranian intermediate EFL learners. Based on the present findings, verbal songs

provide the learners with a pleasant atmosphere of gradual language development; they reduce the learners' stresses and create a cooperative ambience and unison among the learners. Songs could be a promising replace for the traditional methods of teaching pronunciation such as listening and repeating individual words in isolation. Songs are suitable authentic teaching aid and interesting enough for almost every human being to benefit even in the course of learning and improving language skills.

Concisely, it can be concluded that singing songs could generally have significant impacts on the connected speech aspects of the second language learners' speech production. Further researches are needed to investigate the other methods with the purpose of measuring the effects of employing target language songs in different genres on development of different phonological aspects of the target-spoken language. If the results of this study are supported by further researches, then it can safely be argued that using songs and their related tasks energized by specific strategies are of great importance in the process of developing the EFL learners' second language speaking skill. The teachers would hopefully take what has been presented here and apply it to their own situations in order to improve naturalness and fluency of their students' speaking in the target language.

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