

The Impact of Podcasts with Imitation Technique on Iranian Intermediate EFL learners' Four Components of Speaking Performance and Willingness to Communicate

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ABSTRACT: In English as a Foreign Language (EFL) contexts, learners do not have many opportunities to communicate in English. Therefore, speaking is usually the most difficult skill in these situations. Even in contexts where there are enough opportunities to communicate in English, some learners may not be willing enough to communicate in the foreign language. Accordingly, this study aimed at investigating the impact of podcasts with an imitation technique on Iranian intermediate EFL learners' speaking performance, by dividing speaking into four components, and willingness to communicate. Among 100 intermediate students, 60 participants (both genders) were selected. Then they were randomly divided into two groups: one control group and one experimental group, namely a podcast group with an imitation technique. Each group consisted of 30 language learners. Before the treatment, the speaking test (the International English Language Testing System speaking test) and the Willingness to Communicate test were held among these 60 people. After completing the treatment, the researchers made changes in the pre-test (changing the order of questions and options) and administered it as a post-test to the participants. The results showed that the treatment of this study had a significant effect on the performance of language learners in speaking and WTC tests in general. More specifically, the results indicated an improvement in each of the components of speaking, namely pronunciation, grammar, lexical resources, and fluency. Therefore, EFL teachers are recommended to incorporate podcasts with the imitation technique in their EFL classes.

Keywords: mobile-assisted language learning, computer-assisted language learning, English as a foreign language

Introduction

Technology has become an essential part of language teaching and learning due to its fast development in every aspect of life. Using technology in classrooms can help teachers improve the quality of their teaching, and it can be effective in increasing students' participation in class (Nur Rakhmawati & Kusuma, 2016). In addition, with the vast advancements in the field of technology, it has become easier for researchers to access

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the information they need. Also, language learners can easily get the educational materials they need through social media (Faramarzi et al., 2018). Efforts to enhance education focus on removing time and place limitations. Technological advancements have improved teaching (Burston, 2013) and support speaking exercises (Popova & Edirisingha, 2010).

Technology has transformed classrooms into independent learning spaces (Lee, 2011). Tools like Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) foster student autonomy (Benson, 2004). Podcasts enhance language skills and speaking abilities (Rosell-Aguilar, 2013; Sulistiawati & Suseno, 2022) and are believed to be fascinating and effective technological tools to be used in language classes (Indahsari, 2020). Additionally, the imitation technique is very effective in speaking performance, especially in pronunciation (Prabhu et al., 2015). One of the oldest approaches to teaching a second language (L2) is an imitation of words and sentences (Ghazi-Saidi et al., 2013). Most linguists believe that children do not learn a language in a controlled manner as summarized by Nor and Rashid (2018).

Speaking skills are vital in English teaching and essential for language mastery (Fauzan, 2014). Non-native speakers face challenges in developing these skills, which require body language, tone, and pronunciation (Hamad et al., 2019). Research on using podcasts to improve speaking skills is limited in general, especially in the Iranian context. Gradually, the concept of Willingness to Communicate (WTC) has become more essential in second language learning studies. Many studies have been done on the influencing variables of the willingness of foreign language learners to communicate. However, no research study has been done on the effect of podcasts with the imitation technique on the WTC (Sabbaghian, 2017). Therefore, this research aimed to investigate the effect of using podcasts as a language learning tool, with the imitation technique on speaking performance and WTC.

Review of Literature

Speaking

Mastering spoken English is vital for communication, and it involves interactive learning (Alawajee & Almutairi, 2022; Kumar, 2020). Fluency requires processing language, not just knowledge of structure (Harmer, 2007). Speaking and listening skills are interrelated and necessitate both linguistic and sociolinguistic competencies (Anggraini et al., 2023). Teaching speaking to foreign language learners is difficult due to limited exposure and psychological barriers like anxiety and low self-confidence (Hamad et al., 2019; Shafiqul Islam & Hasan, 2020). Tools like podcasts (Quinn, 2016) and a focus on repetition can help improve fluency (Ghahderijani et al., 2021). Despite their knowledge, many learners struggle with speaking because it often receives less focus than grammar (Clifford, 1987; Nunan, 1995).

Podcasts

Technology enhances language teaching (Maness, 2004) and learning (Hamad, 2017). Podcasts improve skills and engagement, especially for shy learners (O'Brien & Hegelheimer, 2007), while reducing anxiety (Quinn, 2016). Podcasts include audio, video, and screencasts (Haqberdiyeva, 2022). Rosell-Aguilar (2007) distinguishes between authentic podcasts with native speakers and language course podcasts for teaching. **Figure 1** below shows the classification of educational podcasts.



Figure 1. Taxonomy of uses of podcasting for language learning (adapted from RossellAguilar, 2007)

In this **Figure 1**, you can see the podcasts that the teacher created based on the needs of his/her classroom. Then there are podcasts prepared by a number of educational institutions for the use of students and teachers and published on the Internet. After that, there are podcasts created by the students themselves. And finally, there are podcasts that are available on TV, websites, etc., and they are called authentic podcasts (Rosell-Aguilar, 2007).

Imitation Technique

According to Marsh and Alanen (2012), imitation is the act of mimicking, copying, or replicating behavior that has been modeled or observed by other people. The imitation technique with regard to podcasts refers to the repetition of what has been said in the podcast sentence by sentence after listening to it. The imitation technique in teaching effectively engages students and enhances learning (Almurashi, 2016). Humans naturally imitate from a young age, learning from parental behavior (Bandura & Huston, 1961; Meltzoff et al., 2009; Whiten et al., 2009;). Research shows that imitation also boosts language students' confidence and helps them reach speaking goals through discovering their talents and abilities (Hamad et al., 2019). Additionally, it supports cognitive development and behavioral preservation across generations (Herrmann et al., 2013; Meltzoff et al., 2009). Children gain deeper understanding by imitating detailed actions (Williamson & Markman, 2006).

WTC

Interaction is key for language learning (Delić & Bećirović, 2016). WTC (willingness to communicate) is influenced by gender and age, with women generally having higher WTC that declines with age, while men's WTC increases (Amiryousfi, 2018; Yetkin & Ozer, 2022). Strong social support also enhances WTC and motivation (Vatankhah & Tanbakooei, 2014). MacIntyre et al. (1998) noted that situational factors can impact WTC in a second language (**Figure 2**). In simple words, it can be said that WTC can depend on some situational variables.

WTC in a second language refers to the readiness to engage in conversation with a specific person at a specific time (MacIntyre et al., 1998). The multi-layered exploratory model created by Zarrinabadi and Tanbakooei (2016) explains various factors that influence WTC, such as communicative competence, attitudes, motivation, and self-confidence. This model differentiates between enduring characteristics and situational factors, where the first three layers reflect unstable situational effects, while the lower layers denote stable, long-term traits of individuals or their environment.



Figure 2. MacIntyre et al.'s (1998) heuristic model of L2 WTC

Related Studies

Considering the effect of podcasts on learning English as a second language, Hasan and Hoon (2013) reviewed twenty articles in this regard. Their findings indicated that podcasts were greatly effective on improving ESL learners' speaking and listening, as well as their grammar, vocabulary, and pronunciation. The benefits of podcasts in language learning are not limited to English, and research has shown that podcasts can improve learning languages other than English. Tan et al. (2013), for instance, developed podcasts in Mandarin and analyzed the participants' perceptions about those podcasts using questionnaires and interviews. They found that podcasts were beneficial tools for improving language learning.

However, using podcasts in language classes is not free of challenges. Quinn (2016) identified key challenges for foreign language learners in speaking English, including inhibition, uneven participation, and reliance on their native language. To overcome these challenges, students used repetition strategies, which enhanced their speaking skills and pronunciation. Podcasts can be effective learning tools not only in the field of language but also in any field of education. Goldman (2018) has elaborated on the benefits of podcasts in education in general. He believes that schools should acknowledge the benefits of podcasts and incorporate them into their curriculum.

Podcasts have also been shown to be a useful learning tool in online classes. Nova (2022) conducted a study on 47 ESP students from tourism management, most of whom agreed that online podcast was a positive activity for speaking skills. These language learners said that the use of podcasts has made them able to strengthen their speaking skills and practice speaking. Also, the use of podcasts in the online class has increased their motivation.

More recent studies have also shown the effectiveness of podcasts in language classes. Chaves-Yuste and de-la Pena (2023) used audio podcasts in secondary school EFL classes in Madrid, Spain. The results showed that the creation and use of podcasts in EFL classes were beneficial in improving EFL learners' linguistic competence, particularly speaking and listening.

In one of the most recent studies in this field, Axrorova (2025) explored the effect of podcasts on EFL learners' listening skill. In a mixed-methods study using pretest, posttest, survey and interview, the author showed that podcasts could significantly improve EFL learners' listening, especially with regard to accent recognition, speech rate adaptation, and contextual comprehension. As the above review of literature suggests, previous studies focused on the effects of podcasts on different language skills. However, no previous study has dealt with the effect of podcast on WTC and on speaking subskills. In addition, no previous study has investigated the effect of podcasts with *imitation* technique on any skill or component of language. Therefore, the purpose of the present study was to examine the effect of podcasts with imitation technique on components of speaking skill and willingness to communicate of Iranian intermediate EFL learners.

Research Questions

As shown in the previous section, a number of studies have dealt with the effect of podcasts, in general, on language learning. However, none of them has dealt with podcasts with imitation technique. Moreover, no previous study has focused on sub-skills of speaking and on WTC. Therefore, this study investigated the effect of podcasts with imitation technique on Iranian intermediate EFL learners' four components of speaking performance and willingness to communicate. Accordingly, the following major and minor research questions were proposed in this study.

RQ1: Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' speaking performance?

RQ1-1 Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' speaking pronunciation?

RQ1-2 Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' speaking grammar?

RQ1-3 Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' use of lexical resources when speaking?

RQ1-4 Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' speaking fluency?

RQ2: Does using podcasts with imitation technique have any statistically significant effect on Iranian intermediate EFL learners' WTC?

Method

Participants

The participants in this research were 60 male and female language learners who were selected from among 100 B1-level language learners in Takht-e-Jamshid institute located in Shahriar city, Tehran province. Their age range was between 13 and 18 years. In order to select the participants, the Oxford Placement Test (OPT) was administered among intermediate-level language learners in the institute (100 people), and among them, 60 people who had scores closer to the mean score were selected, and these 60 people were randomly divided into two groups with 30 people in each group. This research had a control group that was taught in the traditional way, and one experimental group in which the podcast with an imitation technique was used.

Instruments

The researchers' instruments in this study were as follows:

Oxford Placement Tests (OPT)

In this study, OPT (Version 1, 2001) was used to check the homogeneity of the participants, which is a valid test to measure the level of language proficiency of the participants. Considering that the questions were multiple-choice, taking and scoring this test was relatively quick and easy, and taking this test takes about 60 minutes (Hill & Taylor, 2004). It should also be mentioned that this test has high validity and reliability ($\alpha=.91$) based on Cronbach's alpha (Nematizadeh, 2011; Wistner et al., 2009).

Pretest and Posttest

Speaking Pretest and Posttest: An IELTS speaking test (Hart & Jakeman, 2012) was administered to the participants before and after treatment to assess their speaking performance. The test featured three parts, with the initial and final sections lasting 4 to 5 minutes and the middle section about 2 to 3 minutes. The pre-test occurred before using the podcast technique, with a post-test after the treatment. Both the pretest and posttest were rated by two raters who had received formal training on how to rate IELTS speaking test. They scored the test through blind scoring. Then, the inter-rater reliability was calculated through Cronbach's alpha.

WTC Pretest and Posttest: In this study, the researchers intended to evaluate the WTC of language learners, before and after the treatment, from the questionnaire of MacIntyre et al. (2001). Of course, the researchers used the modified version of this questionnaire. This questionnaire had two parts: inside and outside the classroom, which included 52 situations, designed as a 5-point Likert scale. This questionnaire was used as a pre-test, and after the completion of the treatment, it was used as a post-test.

Podcasts: Podcasts were used in experimental group. In this group, the impact of the podcast with the imitation technique, was investigated. These podcasts are easily accessed through two links <https://www.LetsMasterEnglish.com> and <https://sleeptightstories.org/>, or these podcasts are available in the Podbean application (<https://www.podbean.com/>). The researchers selected 10 audio podcasts, which are listed in **Table 1**.

Data Collection Procedure

Before the start of this study, among 100 intermediate students of Takht-e-Jamshid language institute in Shahriar, located in Tehran province, the researchers conducted an OPT test in a period of 60 minutes to homogenize the participants. Afterward, 60 participants (both genders) whose scores were close to the mean (one standard deviation above and below the mean) were selected. Then they were randomly divided into two groups: one control group and one experimental group, i.e., a podcast group with imitation technique. Each group consisted of 30 language learners. Before the treatment, the speaking test (IELTS speaking test) and the WTC test (questionnaire of MacIntyre et.al.,2001) were held among these 60 people.

The total of sessions in the institute was equal to one academic semester, two sessions per week, and the time of each session was about 90 minutes. The books used at this level in this institute were American English File books. The topic of the podcasts was different in each session, and the audio files of each podcast and podcast transcript in each session were sent to students through the class group in the WhatsApp application before the class.

Table 1. Podcasts used in the present study

No.	Podcast Series	Title	Length(time)
1	Daily easy English expression	Music to my Ears	03:57
2	Sleep tight stories	The Crickets' School	10:56
3	Sleep tight stories	Snowman	11:49
4	Tumble science	The Worst Sounds in the World	17:56
5	Sleep tight stories	Lucy and the Unicorn	19:02
6	what if world	What if everything started turning into LEGO	19:02
7	What if World	What if a space monster ate a spaceship	19:43
8	Tumble science	The Science of Your Favorite Foods	21:00
9	Culips everyday English	Childhood Games	21 :39
10	The Sporkful	Lunchtime with the Simpsons	35:29

In the podcast class with the imitation technique, the podcast was played once and the language learners were asked to listen to it. Then, the podcast was played again, but this time the podcast was stopped sentence by sentence and the learners were asked to try to make their sentences similar to the podcast in terms of tone, intonation, and accent when repeating the sentences. At this stage, if the language learners were not able to repeat parts of the podcast, they could also look at the text of the podcast file provided to them. Then they would summarize what they had understood. After this stage, new words and terms, as well as the grammar points of the file were taught to them. Students were required to pause and repeat the podcast again at home for the next session's assignment and review the new points they learned in class. At the beginning of the next session, language learners were asked to summarize the podcast of the previous session in their own words. After that, the new podcast was used in class. After working with the podcast, the class continued according to the language textbook of the students in the institute. For both groups, there was only one day between the two class sessions every week. Therefore, doing this technique once was enough. But there were six days until the next week for the next class meeting. Therefore, because there were two podcasts every week, language learners had to practice these techniques at least twice at home for each podcast according to what was taught in class.

In the control group, instruction utilized the designated textbook without the incorporation of podcasts. Of course, the same amount of time which was dedicated to podcast practice in the experimental group was allocated to speaking practice in the control group. However, the speaking practice in the control group was performed without podcasts in a conventional manner. In the rest of the class time, the participants focused on developing language skills through the book's tips, grammar, and vocabulary for the duration of the semester (exactly the work routine of the institution). This process continued until the end of the semester. And at the end of the semester, the researchers made changes in the pre-test (changing the order of questions and options) and took it as a post-test from the participants.

Results

Normality of the Data

As noted by Field (2018), the ratios of skewness and kurtosis greater than 1.96 is significant at $p < 0.05$. Since the computed ratios were lower than ± 1.96 in this study, it was concluded that the normality assumption was retained.

Reliability Estimates

The Cronbach's alpha reliability indices for pretest and posttest of WTC were .980, and .994, respectively. Based on the criterion suggested by several studies (Dörnyei & Taguchi, 2009; Fryer et al., 2018; Harrison et al., 2021; Tseng, et al., 2006), it can be concluded that the pretest and posttest of WTC enjoyed appropriate reliability indices. It should be noted that these scholars proposed the Cronbach's alpha index of .70 as the minimum acceptable index for an instrument to identified as appropriate. The inter-rater reliability for pretests of speaking pronunciation, grammar, lexical resources, and fluency rated by two raters indicated that there were significant agreements between the two raters on pretests of pronunciation, grammar, lexical resources, and fluency; hence, their inter-rater reliability.

Exploring First Major Null-Hypotheses

The first major null-hypotheses aims at comparing the podcasts with imitation, and control groups' means on posttests of speaking pronunciation, grammar, lexical resources and fluency. While the research questions targeted the speaking performance as a single test, it comprised four sub-skills (components) of speaking pronunciation, grammar, lexical resources, and fluency. That was why each major null-hypothesis was restated as three minor ones. To achieve these objectives, Multivariate Analysis of Covariance (MANCOVA) was run to compare the two groups' means on posttests of speaking pronunciation, grammar, lexical resources and fluency after controlling for the effect of pretests. Before discussing the results, the assumptions related to MANCOVA will be reported.

Besides the assumption of normality which was reported, MANCOVA has four more specific assumptions; i.e., homogeneity of variances of groups, linearity of relationships between pretests and posttests, homogeneity of regression slopes, and finally, homogeneity of covariance matrices. It is worth mentioning that MANCOVA has three more assumptions; i.e., reliability of instruments, covariates being administered before the posttests, and lack of high correlations among covariates related to a single dependent variable. The reliability indices were reported, the covariates were administered before the posttests; and finally, posttests of speaking pronunciation, grammar, lexical resources, and fluency each had a single covariate; thus, no need to worry about the correlation among covariates. The other assumptions related to One-Way ANCOVA are discussed below.

Table 2 displays the results of the Levene's test of homogeneity of variances. The results indicated that the assumption of homogeneity of variances was retained on posttests of pronunciation ($F(2, 57) = .012, p > .05$); however, it was violated on posttests of grammar ($F(2, 57) = 7.36, p < .05$), lexical resources ($F(2, 57) = 9.96, p < .05$), and fluency ($F(2, 57) = 14.11, p < .05$). Since the groups enjoyed equal sample sizes, there was no need to consider the violation of this assumption (Bachman, 2005; Tabachnick & Fidell, 2014; Pallant, 2016; Field, 2018).

Table 2. Levene's test of homogeneity of variances posttests of speaking

	F	df1	df2	Sig.
Post-Pronunciation	.012	2	57	.988
Post-Grammar	7.362	2	57	.001
Post-Lexical Resources	9.964	2	57	.000
Post-Fluency	14.117	2	57	.000

Table 3 shows the results of the linearity tests. Before discussing the results, it should be noted that MANCOVA assumes that the correlation between pretest and posttest of each of the speaking sub-skills should be linear. The significant results of the linearity tests indicated that there were linear relationships between pretests and posttests of; a) pronunciation ($F(1, 54) = 270.08, p < .05, \eta^2 = .836$ representing a large effect size) (see **Table 3**), b) grammar ($F(1, 55) = 327.15, p < .05, \eta^2 = .856$ representing a large effect size), lexical resources ($F(1, 54) = 340.78, p < .05, \eta^2 = .864$ representing a large effect size), and fluency ($F(1, 53) = 331.76, p < .05, \eta^2 = .867$ representing a large effect size).

Table 3. Tests of linearity between pretests and posttests of speaking

				Sum of Squares	df	Mean Square	F	Sig.
Post-Pronunciation * Pronunciation	Pre- Between Groups	(Combined)		17.298	5	3.460	55.190	.000
		Linearity		16.931	1	16.931	270.088	.000
		Deviation from Linearity		.368	4	.092	1.466	.225
	Within Groups			3.385	54	.063		
	Total			20.683	59			
	Eta Squared			.836				
Post-Grammar * Grammar	Pre- Between Groups	(Combined)		18.590	4	4.648	81.869	.000
		Linearity		18.572	1	18.572	327.15	.000
		Deviation from Linearity		.018	3	.006	.108	.955
	Within Groups			3.122	55	.057		
	Total			21.713	59			
	Eta Squared			.856				
Post-Lexical * Pre-Lexical	Between Groups	(Combined)		18.350	5	3.670	68.729	.000
		Linearity		18.202	1	18.202	340.879	.000
		Deviation from Linearity		.148	4	.037	.692	.601
	Within Groups			2.883	54	.053		
	Total			21.233	59			
	Eta Squared			.864				
Post-Fluency * Pre-Fluency	Between Groups	(Combined)		21.977	6	3.663	57.831	.000
		Linearity		21.012	1	21.012	331.761	.000
		Deviation from Linearity		.964	5	.193	3.045	.017
	Within Groups			3.357	53	.063		
	Total			25.333	59			
	Eta Squared			.867				

Eta Squared was computed as Sum of Squares Between Groups / Sum of Squares Total; and should be interpreted using these criteria, .01 = Weak, .06 = Moderate, and .14 = Large (Gray and Kinnear, 2012, p. 244; Larsen-Hall, 2016, p. 67, and Field, 2018, p. 737).

The third assumption, homogeneity of regression slopes, requires that the linear relationships between the variables should hold true across all groups. Unlike the test of linearity, where significant results indicated linear relationships between the variables, the non-significant results for tests of homogeneity of regression slopes indicate that the linear relationships between the variables should hold true across all groups. Based on the results shown in **Table 4** it was concluded that the assumption of homogeneity of regression slopes was retained on; a) pronunciation ($F(8, 80) = 1.49, p > .05, \eta^2 = .130$ representing a moderate effect size) (see **Table 4**), b) grammar ($F(8, 80) = 1.24, p > .05, \eta^2 = .111$ representing a large effect size), lexical resources ($F(8, 80) = .709, p > .05, \eta^2 = .066$ representing a moderate effect size), and fluency ($F(8, 80) = 1.32, p > .05, \eta^2 = .117$ representing a moderate effect size).

Table 4. Test of homogeneity of regression slopes for speaking tests

Effect		Value	F	Hypothesis	Error	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.114	1.259	4.000	39.000	.302	.114
	Wilks' Lambda	.886	1.259	4.000	39.000	.302	.114
	Hotelling's Trace	.129	1.259	4.000	39.000	.302	.114
	Roy's Largest Root	.129	1.259	4.000	39.000	.302	.114
Group	Pillai's Trace	.107	.568	8.000	80.000	.801	.054
	Wilks' Lambda	.894	.564	8.000	78.000	.804	.055
	Hotelling's Trace	.118	.561	8.000	76.000	.807	.056
	Roy's Largest Root	.108	1.082	4.000	40.000	.379	.098
Pre-Pronunciation	Pillai's Trace	.801	39.3074.000		39.000	.000	.801
	Wilks' Lambda	.199	39.3074.000		39.000	.000	.801
	Hotelling's Trace	4.03239.3074.000			39.000	.000	.801
	Roy's Largest Root	4.03239.3074.000			39.000	.000	.801
Pre-Grammar	Pillai's Trace	.777	34.0324.000		39.000	.000	.777
	Wilks' Lambda	.223	34.0324.000		39.000	.000	.777
	Hotelling's Trace	3.49034.0324.000			39.000	.000	.777
	Roy's Largest Root	3.49034.0324.000			39.000	.000	.777
Pre-Lexical	Pillai's Trace	.550	11.9164.000		39.000	.000	.550
	Wilks' Lambda	.450	11.9164.000		39.000	.000	.550
	Hotelling's Trace	1.22211.9164.000			39.000	.000	.550
	Roy's Largest Root	1.22211.9164.000			39.000	.000	.550
Pre-Fluency	Pillai's Trace	.609	15.2034.000		39.000	.000	.609
	Wilks' Lambda	.391	15.2034.000		39.000	.000	.609
	Hotelling's Trace	1.55915.2034.000			39.000	.000	.609
	Roy's Largest Root	1.55915.2034.000			39.000	.000	.609
Group	Pillai's Trace	.260	1.494	8.000	80.000	.173	.130
	Wilks' Lambda	.746	1.537	8.000	78.000	.158	.136
	Hotelling's Trace	.332	1.576	8.000	76.000	.146	.142
	Roy's Largest Root	.305	3.048	4.000	40.000	.028	.234

Group	Pillai's Trace	.222	1.246	8.000	80.000	.284	.111
* Pre-Grammar	Wilks' Lambda	.789	1.226	8.000	78.000	.295	.112
	Hotelling's Trace	.254	1.206	8.000	76.000	.307	.113
	Roy's Largest Root	.178	1.780	4.000	40.000	.152	.151
Group	Pillai's Trace	.132	.709	8.000	80.000	.683	.066
* Pre-Lexical	Wilks' Lambda	.870	.700	8.000	78.000	.690	.067
	Hotelling's Trace	.146	.691	8.000	76.000	.698	.068
	Roy's Largest Root	.118	1.181	4.000	40.000	.334	.106
Group	Pillai's Trace	.234	1.327	8.000	80.000	.242	.117
* Pre-Fluency	Wilks' Lambda	.777	1.313	8.000	78.000	.250	.119
	Hotelling's Trace	.273	1.298	8.000	76.000	.257	.120
	Roy's Largest Root	.204	2.040	4.000	40.000	.107	.169
Group	Pillai's Trace	.242	.900	12.000	123.000	.549	.081
* Pre-Pronunciation	Wilks' Lambda	.772	.887	12.000	103.476	.563	.083
* Pre-Grammar	Hotelling's Trace	.278	.872	12.000	113.000	.578	.085
* Pre-Lexical * Pre-Fluency	Roy's Largest Root	.187	1.919	4.000	41.000	.125	.158

And finally, **Table 5** shows the results of the homogeneity of covariance matrices. It should be noted that MANCOVA requires that the correlations between any dependent variables; i.e., posttest of speaking, should be roughly equal across the groups. The non-significant results of the Box's Test ($M = 19.52, p > .001$) indicated that the assumption of homogeneity of covariance matrices was retained. It should be noted that in a number of studies, several researchers (Tabachnick & Fidell, 2014; Pallant, 2016; and Field, 2018) believe that the results of the Box's tested should be reported at .001 levels.

After reporting the assumptions related to MANCOVA, **Table 6** shows the main results of MANCOVA. The results ($F(8, 102) = 30.93, p < .05, \eta^2 = .708$ representing a large effect size) indicated that there were significant differences between the imitation, and control groups' overall means on posttests of speaking. These results cannot be used to probe any of the null-hypotheses. They merely indicate that the treatments had significant effects on the EFL learners' performance on the overall speaking test.

Unlike **Table 6** which showed the significant effects of the treatments on overall speaking test, **Table 7** shows the main results of Between-Subjects Effects for the effect of treatments on each component of speaking. These results investigated the effect of treatments on four components of the speaking tests. Based on these results it can be concluded that there were significant differences between the two groups' means on posttests of speaking after controlling for the effect of pretests. That is to say, there were significant differences between the two groups' means on; a) pronunciation ($F(2, 53) = 69.01, p < .05, \eta^2 = .723$ representing a large effect size), 2) grammar ($F(2, 53) = 69.43, p < .05, \eta^2 = .724$ representing a large effect size), c) lexical resources ($F(2, 53) = 21.17, p < .05, \eta^2 = .444$ representing a large effect size), and d) fluency ($F(2, 53) = 24.82, p < .05, \eta^2 = .484$ representing a large effect size). These results will be followed by the descriptive statistics in **Table 8**, and post-hoc comparison tests in **Table 9** which probe the minor null-hypotheses raised in this study.

Table 5. Box's test of equality of covariance matrices for posttest of speaking

Box's M	19.526
F	.876
df1	20
df2	11662.473
Sig.	.618

Table 6. Multivariate tests for posttests of speaking by group with pretests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Squared	Eta
Intercept	Pillai's Trace	.180	2.744	4	50	.039	.180	
	Wilks' Lambda	.820	2.744	4	50	.039	.180	
	Hotelling's Trace	.219	2.744	4	50	.039	.180	
	Roy's Largest Root	.219	2.744	4	50	.039	.180	
Pre-Pronunciation	Pillai's Trace	.798	49.350	4	50	.000	.798	
	Wilks' Lambda	.202	49.350	4	50	.000	.798	
	Hotelling's Trace	3.948	49.350	4	50	.000	.798	
	Roy's Largest Root	3.948	49.350	4	50	.000	.798	
Pre-Grammar	Pillai's Trace	.827	59.576	4	50	.000	.827	
	Wilks' Lambda	.173	59.576	4	50	.000	.827	
	Hotelling's Trace	4.766	59.576	4	50	.000	.827	
	Roy's Largest Root	4.766	59.576	4	50	.000	.827	
Pre-Lexical	Pillai's Trace	.637	21.978	4	50	.000	.637	
	Wilks' Lambda	.363	21.978	4	50	.000	.637	
	Hotelling's Trace	1.758	21.978	4	50	.000	.637	
	Roy's Largest Root	1.758	21.978	4	50	.000	.637	
Pre-Fluency	Pillai's Trace	.573	16.808	4	50	.000	.573	
	Wilks' Lambda	.427	16.808	4	50	.000	.573	
	Hotelling's Trace	1.345	16.808	4	50	.000	.573	
	Roy's Largest Root	1.345	16.808	4	50	.000	.573	
Group	Pillai's Trace	1.416	30.938	8	102	.000	.708	
	Wilks' Lambda	.069	35.047	8	100	.000	.737	
	Hotelling's Trace	6.445	39.476	8	98	.000	.763	
	Roy's Largest Root	5.056	64.463	4	51	.000	.835	

Table 7. Tests of between-subjects effects for posttests of speaking by group with pretests

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pre-Pronunciation	Post-Pronunciation	3.557	1	3.557	193.549	.000	.785
	Post-Grammar	.007	1	.007	.412	.524	.008
	Post-Lexical	.000	1	.000	.014	.907	.000
	Post-Fluency	.059	1	.059	1.491	.227	.027
Pre-Grammar	Post-Pronunciation	.001	1	.001	.036	.851	.001
	Post-Grammar	3.601	1	3.601	223.033	.000	.808
	Post-Lexical	.022	1	.022	.697	.407	.013
	Post-Fluency	.001	1	.001	.036	.851	.001
Pre-Lexical	Post-Pronunciation	.000	1	.000	.000	.994	.000
	Post-Grammar	.000	1	.000	.007	.935	.000
	Post-Lexical	2.783	1	2.783	88.095	.000	.624
	Post-Fluency	.020	1	.020	.498	.483	.009
Pre-Fluency	Post-Pronunciation	.000	1	.000	.022	.882	.000
	Post-Grammar	.008	1	.008	.494	.485	.009
	Post-Lexical	.029	1	.029	.915	.343	.017
	Post-Fluency	2.433	1	2.433	61.748	.000	.538
Group	Post-Pronunciation	2.536	2	1.268	69.018	.000	.723
	Post-Grammar	2.242	2	1.121	69.437	.000	.724
	Post-Lexical	1.338	2	.669	21.177	.000	.444
	Post-Fluency	1.956	2	.978	24.826	.000	.484
Error	Post-Pronunciation	.974	53	.018			
	Post-Grammar	.856	53	.016			
	Post-Lexical	1.675	53	.032			
	Post-Fluency	2.088	53	.039			
Total	Post-Pronunciation	1393.500	60				
	Post-Grammar	1092.750	60				
	Post-Lexical	1096.500	60				
	Post-Fluency	1332.000	60				

Table 8 shows the two groups, means on posttests of speaking after controlling for the effect of pretests. The results showed that the imitation group had higher means than the control group on four components of posttests of speaking. The results will be discussed in detail below.

And finally, **Table 9** shows the results of the Bonferroni post-hoc comparison tests. These results can be employed to probe the null hypotheses raised in this study. Before discussing the results, it should be noted that when running MANCOVA, the ordinary post-hoc tests, such as Scheffe and Tukey, will be disabled.

Table 8. Descriptive statistics for posttests of speaking by groups with pretest

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Post-Pronunciation	Experimental	4.925 ^a	.030	4.864	4.986
	Control	4.477 ^a	.031	4.414	4.540
Post-Grammar	Experimental	4.499 ^a	.028	4.442	4.556
	Control	4.075 ^a	.029	4.016	4.134
Post-Lexical	Experimental	4.444 ^a	.040	4.364	4.524
	Control	4.108 ^a	.041	4.025	4.190
Post-Fluency	Experimental	4.893 ^a	.044	4.804	4.982
	Control	4.442 ^a	.046	4.349	4.534

a. Covariates appearing in the model are evaluated at the following values: Pre-Pronunciation = 4.45, Pre-Grammar = 4.08, Pre-Lexical = 4.09, Pre-Fluency = 4.43.

Table 9. Bonferroni post-hoc comparison tests for posttests of speaking by group with pretests

Dependent Variable (I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference		
					Lower Bound	Upper Bound	
Post-Pronunciation	Experimental	Control	.448*	.044	.000	.339	.556
	Experimental	Control	.423*	.041	.000	.322	.525
Post-Grammar	Experimental	Control	.337*	.057	.000	.195	.479
	Experimental	Control	.451*	.064	.000	.293	.610

*. The mean difference is significant at the .05 level.

The user can select one of the three available post-hoc tests; i.e., no-correction, LSD (the Least Significant Difference), or Bonferroni tests. The former two tests are lenient, and do not penalize for multiple comparisons made, while the Bonferroni test corrects for familywise error caused by multiple comparisons of means (Field, 2018).

Based on the results shown in [Table 8](#) and [9](#) it can be concluded that:

RQ1-1: The imitation group ($M = 4.92$) significantly outperformed the control group ($M = 4.47$) on posttest of speaking pronunciation after controlling for the effect of pretest ($MD = .448$, $p < .05$). Thus; it can be concluded that the H01-1 as “Podcasts with imitation technique did not have any statistically significant effect on Iranian intermediate EFL learners’ speaking pronunciation” was rejected. [Figure 3](#) shows the two groups’ means on posttest of speaking pronunciation after controlling for the effect of pretest.

RQ1-2: The imitation group ($M = 4.49$) significantly outperformed the control group ($M = 4.07$) on posttest of speaking grammar after controlling for the effect of pretest ($MD = .423$, $p < .05$). Thus; it can be concluded that the H01-2 as “Podcasts with imitation technique did not have any statistically significant effect on Iranian intermediate EFL learners’ speaking grammar” was rejected. **Figure 4** shows the two groups’ means on posttest of speaking grammar after controlling for the effect of pretest.

RQ1-3: The imitation group ($M = 4.44$) significantly outperformed the control group ($M = 4.10$) on posttest of speaking lexical resources after controlling for the effect of pretest ($MD = .337$, $p < .05$). Thus; it can be concluded that the H01-3 as “Podcasts with imitation technique did not have any statistically significant effect on Iranian intermediate EFL learners’ use of lexical resources when speaking” was rejected. **Figure 5** shows the two groups’ means on posttest of speaking lexical resources after controlling for the effect of pretest.

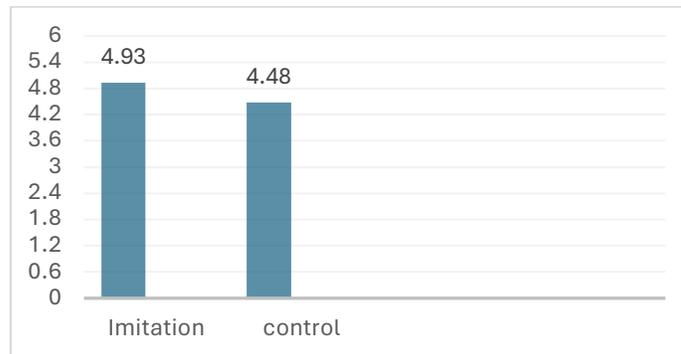


Figure 3. Means on the posttest of speaking pronunciation by group with pretest

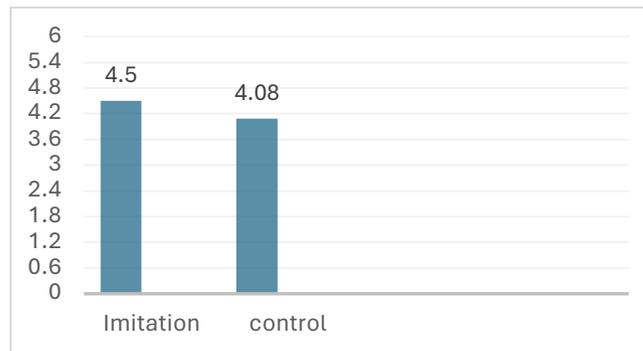


Figure 4. Means on posttest of speaking grammar by group with pretest

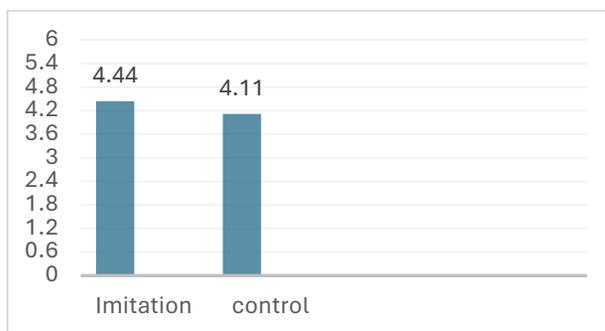


Figure 5. Means on posttest of speaking lexical resources by group with pretest

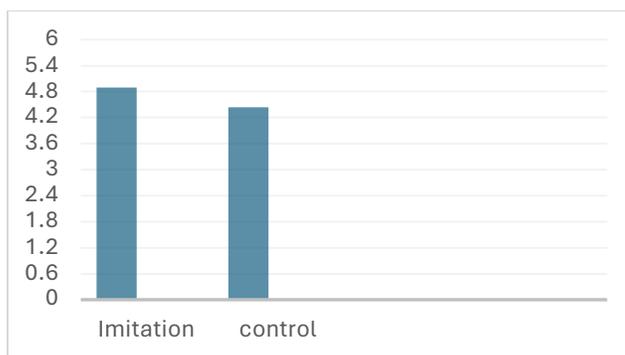


Figure 6. Means on posttest of speaking fluency by group with pretest

RQ1-4: The imitation group ($M = 4.89$) significantly outperformed the control group ($M = 4.44$) on posttest of speaking fluency after controlling for the effect of pretest ($MD = .451$, $p < .05$). Thus; it can be concluded that the H_{01-4} as “Podcasts with imitation technique did not have any statistically significant effect on Iranian intermediate EFL learners’ speaking fluency” was rejected. **Figure 6** shows the two groups’ means on posttest of speaking fluency after controlling for the effect of the pretest.

Exploring Second Major Null-Hypothesis

One-Way ANCOVA was run to compare the imitation and control groups’ means on posttest of WTC after controlling for the effect of pretest in order to probe the second null-hypothesis raised in this study. Besides the assumption of normality, One-Way ANCOVA has three more assumptions; i.e., homogeneity of variances of groups, linearity, and homogeneity of regression slopes. It is worth mentioning that One-Way ANCOVA also requires that the covariate; i.e., pretest of WTC, should be administered before the posttest; as is the case in this study. It also assumes that there should not be too high correlations among covariate. The present study included a single covariate; hence no need to worry about this assumption. Reliability of instruments, the last assumptions required by One-Way ANCOVA was checked. The other assumptions related to One-Way ANCOVA are discussed. First, One-Way ANCOVA assumes that the variances of the groups are roughly equal on posttest of WTC; i.e., homogeneous variances of groups. As **Table 10** shows, the non-significant results of the Levene’s test indicated that the assumption of homogeneity of variances was met on posttest of WTC ($F(2, 57) = .235$, $p > .05$).

Table 10. Homogeneity of variances of posttest of WTC by groups with pretest

F	df1	df2	Sig.
.235	2	57	.792

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Table 11. Testing linearity of relationship between pretest and posttest of WTC

	Sum of Squares	df	Mean Square	F	Sig.
PostWTC * PreWTC	165791.500	48	3453.990	.992	.546
Between Groups					
Linearity	25447.288	1	25447.288	7.308	.021
Deviation	from 140344.212	47	2986.047	.858	.664
Within Groups	38303.750	11	3482.159		
Total	204095.250	59			
Eta Squared	.812				

Second, One-Way ANCOVA assumes that there is a linear relationship between dependent variable (posttest of WTC) and covariate (pretest). The significant results of the linearity test; i.e. ($F(1, 59) = 7.30, p < .05, \eta^2 = .812$ representing a large effect size) (Table 14) indicated that the statistical null-hypothesis that the relationship between posttest and pretest of WTC was not linear was rejected. In other words; there was a linear relationship between pretest and posttest of WTC.

And finally, One-Way ANCOVA requires that the linear relationship between pretest and posttest of WTC are roughly equal across the two groups; homogeneity of regression slopes. The non-significant interaction (Table 12) between covariate (pretest) and independent variable (types of treatment); i.e. ($F(1, 54) = 1.24, p > .05, \text{Partial } \eta^2 = .044$ representing a weak effect size) indicated that the statistical hypothesis that the relationships between pretest and posttest of WTC were linear across the two groups was retained. In other words; there were linear relationships between pretest and posttest of WTC across the experimental and control groups.

Table 13 displays the descriptive statistics for the two groups on posttest of WTC after controlling for the effect of pretest. The results showed that the imitation group ($M = 219.07, SE = 3.61$) had the highest mean on posttest of WTC after controlling for the effect of pretest.

And finally, Table 14 displays the main results of One-Way ANCOVA. The results ($F(2, 56) = 50.13, p < .05, \text{partial } \eta^2 = .642$ representing a large effect size) indicated that there were significant differences between the two groups' means on posttest of WTC after controlling for the effect of pretest.

Table 12. Testing homogeneity of regression slopes for pretest and posttest of WTC by groups

Source	Type III Sum of	df	Mean Square	F	Sig.	Partial Eta
Group	19133.627	2	9566.813	8.441	.001	.238
Pretest	13015.122	1	13015.122	11.484	.001	.175
Group * Pretest	2819.661	2	1409.830	1.244	.296	.044
Error	61200.270	54	1133.338			
Total	1902579.00	60				

Table 13. Descriptive statistics for posttest of WTC by groups with pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Imitation	219.070 ^a	7.587	203.871	234.269
Control	111.522 ^a	7.601	96.295	126.749

a. Covariates appearing in the model are evaluated at the following values: Pretest = 112.33.

Table 14. Tests of between-subjects effects for posttest of WTC by groups with pretest

Source	Type III Sum of	df	Mean Square	F	Sig.	Partial Eta
Pretest	12733.619	1	12733.619	11.138	.002	.166
Group	114628.031	2	57314.016	50.134	.000	.642
Error	64019.931	56	1143.213			
Total	1902579.000	60				

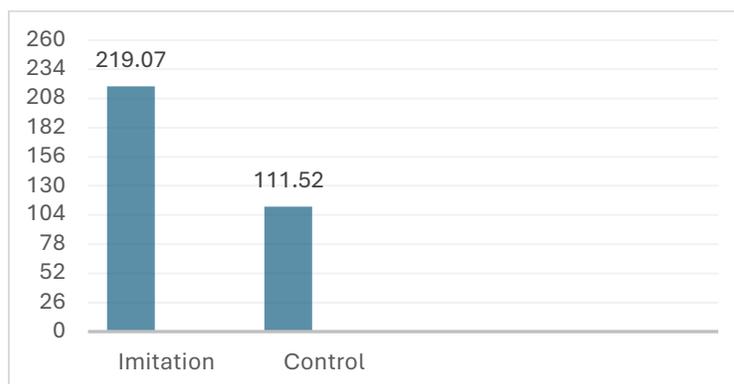
Table 15. Bonferroni post-hoc comparison tests for WTC by group with pretest

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for	
					Lower Bound	Upper Bound
Experimental	Control	107.548 [*]	10.787	.000	80.926	134.169

*. The mean difference is significant at the .05 level.

Table 15 shows the results of the Bonferroni post-hoc comparison tests. It was mentioned earlier that the common post-hoc tests; i.e., Scheffe, and Tukey, are disabled by the SPSS Software when running One-Way ANCOVA.

RQ2: The imitation group ($M = 219.07$) significantly outperformed the control group ($M = 111.52$) on posttest of WTC after controlling for the effect of pretest ($MD = 107.54$, $p < .05$). Thus, the second null-hypothesis as “podcasts with imitation technique did not have any statistically significant effect on Iranian intermediate EFL learners’ WTC” was rejected. **Figure 7** shows the two groups’ means on posttest of WTC after controlling for the effect of pretest.

**Figure 7.** Means on posttest of WTC by groups with pretest

Discussion

The presented results in the preceding sections seemed to suggest that the treatment in this study had a significant effect on the speaking performance of language learners and their WTC in general. As it was mentioned, until today, there were many studies regarding the impact of podcasts, speaking, imitation, and WTC in teaching and learning English. However, it should be noted that no study has been conducted regarding the effect of podcasts with imitation technique on the four components of speaking and WTC of Iranian intermediate EFL learners. In the following, this study was compared with previous studies.

The results of the present study are in line with those of Hasan and Hoon (2013), who found that podcasts effectively enhance language learning by increasing motivation and performance. The findings of Tan et al. (2013) are also similar to those of the present study. They found that podcasts were helpful for language learners and well-liked, offering the advantage of anytime, anywhere access. In line with the results of the current study, Goldman (2018) states that the effectiveness of podcasts in education hinges on their integration by teachers and students. Schools should use podcasts to enhance assignments and support language learners. Regarding the improvement of speaking skills, Ramli & Kurniawan (2018) found that podcasts enhance speaking skills, motivating language learners in classroom activities. They advised teachers to improve their technological knowledge and skills.

In line with the previous study that pointed to the importance of developing digital skills for teachers, Thorne and Payne (2005) stress that teachers should develop digital skills to address the tech-savviness of students. They suggest using online tools, like blogs and podcasts, to bridge the generational gap and enhance learning. Podcasts provide valuable educational materials and authentic audio content. In addition, Ashton-Hay and Brookes (2011), emphasized the importance of podcasts and their impact on speaking and listening skills. Also, one of the important results of this study was that using podcasts can enhance teaching and learning beyond the classroom. Rather, podcasts can help students learn in or out of the class. It means exactly like this study that podcasts were used inside and outside the class.

The results of the present study are also in line with the previous studies which have shown that podcasts enhance learning and creativity, especially for language learners (Popova & Edirisingha, 2010), and they improve collaboration, accountability, and social skills among students (Zarei & Ghasemi, 2016). In the research of Hamad et al. (2019) which was conducted in connection with the effect of imitation on speaking and their discoveries support the findings of this study, the results showed that learning through CALL is an important tool in learning and the imitation technique has a positive effect on EFL learners' pronunciation, speaking skills, and fluency. On the other hand, about WTC, Saint Léger and Storch (2009) conducted a study that in this study, as the students' self-confidence increased, their WTC and use of SL in the classroom also increased. The next point in the study of these two researchers was that the desire of language learners was influenced by the same factors that were mentioned in this study, which made language learners unwilling to communicate in the second language.

A possible explanation for the positive effect of podcast in language classes is the ease of use of podcasts on mobile devices. Nowadays, many people have smartphones, and podcasts can be easily played on smartphones. Smartphones are even more popular among young adolescents, who comprise the largest age group of language learners. Therefore, podcasts can be easily accessed and used by most language learners. Considering the effect of podcasts on speaking and WTC, in particular, podcasts can have a significant because by listening to podcasts, language learners can easily pay attention to the correct pronunciation of words and other phonological aspects of language. Moreover, by listening to podcasts, they can also pay attention to the grammar and vocabulary of the oral text and improve their grammar knowledge and lexical

resources in this way. More specifically, imitation technique while listening to podcasts can be effective in improving speaking and WTC because when students are required to repeat the imitate what they have listened to, they listen more attentively so that they can imitate what they have heard with a similar pronunciation, intonation, wording, and grammatical structure. In this way, learners can better internalize phonological, grammatical and lexical aspects of language.

Conclusion

In this study, the researchers investigated the issue that if the technique of imitation used to work with podcasts, it has an effect on speaking components of Iranian intermediate EFL learners, namely speaking pronunciation, grammar, lexical resources and fluency, and whether it can help their desire to communicate. The findings indicated that podcasts were effective in improving the speaking and WTC of Iranian intermediate EFL learners in general. In both the speaking and WTC sections, the imitation group had better results than the control group.

The findings of this study suggest that using podcast in EFL classes can improve WTC and all aspects of speaking performance of learners in general. More specifically, podcasts which are used with imitation technique in EFL classes are more effective in this regard. Therefore, English teachers are recommended to incorporate podcasts, especially through imitation technique, in their classes to improve their students' speaking performance and to make them more willing to communicate.

Like any other study, this study suffered from a number of limitations, which necessitates conduction of more studies in this field. The number of language learners available to the researchers was limited. Therefore, a similar study can be conducted with a larger population to see if similar results are obtained. This study was conducted on Iranian intermediate EFL learners. Other researchers to conduct studies on language learners of other nationalities at different levels. The researchers' attention in this study was on speaking and WTC. In the future, other researchers can conduct similar research studies on the variables of reading, listening, and writing. Moreover, it is possible to study podcasts with other topics or other types of techniques.

Recommendations

This study was conducted to investigate the effect of podcasts with imitation technique on speaking and WTC of intermediate Iranian EFL learners, and the results of this study can be significant for the following people:

Firstly, this study can be suitable for language learners who are seeking to enhance their speaking skills in English as a foreign language or for those who are unable to communicate in English despite having adequate language knowledge. Also, this study can be useful for learners who want to learn English on their own and do not have time to participate in language classes, or learners who do not have enough motivation to learn English, have lost their motivation to speak English, or don't want to communicate in an SL for some reason.

In addition, teachers can use podcasts with the technique mentioned in this study as a supplementary material in their classrooms to strengthen speaking and increase students' motivation and willingness to use a foreign language. Furthermore, it is worth mentioning that the results of this study can be interesting and useful for teacher trainers. Therefore, by introducing the podcasts and technique mentioned in this study, teachers can gain sufficient knowledge of this educational material and be able to use it.

Besides, material developers can produce different types of podcasts related to the curriculum for teaching and learning English, suitable activities for institutions and schools, so the results of this study can be

significant for material developers. Finally, the managers of the language institutes can also look at the results of this study and be aware of the benefits of using podcasts by language learners, and include the use of podcasts in their school's curriculum.

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