

The Effects of Podcasting on EFL Upper-Intermediate Learners' Speaking Skills

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Abstract

Podcasting is increasingly being used by language teachers as a tool for delivering educational materials and encouraging learning outside of the traditional classroom. The present study aimed at investigating the effects of podcasting on English as a foreign language (EFL) learners' speaking skills. A total of 60 Iranian EFL upper-intermediate learners participated in the study. The participants were divided into three groups: two experimental and one control group. The treatments comprised learners producing podcasts of their pair and group discussions and uploading them to a podcasting service. Learners' performance, in both experimental and control groups, were pre- and post-tested. The results of the Analysis of Variance (ANOVA) revealed that the inclusion of podcasting in the language classrooms had a positive effect on EFL learners' speaking skills in the experimental groups. The results also showed that the learners in the student-made podcast group improved more on their speaking skills compared to the other groups. The results also indicated that podcasting incorporated within a preplanned syllabus (textbook) likely produces better results than podcasting as a main teaching material.

Keywords: podcasting, speaking skills, EFL upper-intermediate students, technology

Introduction

Broadly speaking, for as long as formal education and instruction have existed, there has been an interest in emancipating learning from the restrictions of place and time. Different tools such as clay tablets, scrolls, printed books and, much later in the closing decades of 20th century, different media have been brought into the scene to accomplish this goal. The emergence of new technologies, easy access to the Internet and considerable decrease in the cost of using various technologies have paved the way for a new era of learning and education (Burston, 2013). Introduction of technology into language classrooms has changed the traditional teacher-driven classrooms and led to an increase in learning capacity through a focus on autonomous learning (Lee, 2011). Autonomous learners execute tasks and examine their performance as they are actively involved in the learning process (Dam, 1995; Little, 1996). Little (1996) claims that to support learners to become autonomous, teachers are required to play the role of supporter and facilitator by encouraging students to become actively involved in decision-making and problem solving processes. While there are many

ways to facilitate autonomous language learning, Computer-Assisted Language Learning (CALL) and its branch Mobile Assisted Language Learning (MALL) are increasingly being considered as powerful tools for initiating and directing learners' autonomy (Benson, 2004; Lee, 2005; Murphy, 2006). Among the trends in MALL, podcasting has been widely investigated as an important way to improve learners' learning capacity in and out of the language classrooms (Rosell-Aguilar, 2013). Rapid growth of interest in MALL and the prevalence of high-speed Internet have led to the emergence and popularity of podcasts (Hawke, 2010). Levy (2009) defines podcasting as, "an audio/video file that can be broadcast via the Internet with sound files that are 'pushed' to subscribers, often at regular intervals" (p. 775).

According to Sloan (2005), podcasting is an innovative way of broadcasting through the Internet and can be used for transferring digital audio content automatically to mobile phones. Gromik (2008) claims that podcasting can provide learners with "access to resources which are authentic, free and otherwise not available" (p. 50) in non-English speaking contexts. Scholars have offered some reasons for including podcasts in language learning classrooms (Blaisdell, 2006; Chinnery, 2006; Clark & Walsh, 2004; Laing, Wootton & Irons, 2006, Manning, 2005; Meng, 2005, Sloan, 2005). They include:

1. Podcasting is possible anytime and anywhere. Students can save their time, money and energy by downloading and listening to the podcasts at their convenience.
2. Personalization is an option that podcasting can provide for learners to match their learning styles and strategies. McRae (2010) defines personalized learning as assessing and addressing individual learners' strengths based on their specific needs and learning styles.
3. Podcasting can provide pedagogic advantages when used as complementary to 'e-learning'.
4. Probably one of the most important pedagogic characteristics presented by the podcasts is enabling learning through listening. Rosell-Aguilar (2013) argues that listening to the podcasts can facilitate learning by providing comprehensible input through meaningful and engaging activities.
5. Podcasting makes learning easier, faster and more attractive to the learners.

Podcasting applications in foreign language classrooms

According to Yoshida (2013), in most EFL contexts where learners of English have very few chances to use the foreign language outside of the classroom, providing them with real and authentic opportunities to practice speaking skills can be a valuable undertaking. Before the beginning of the twenty-first century, CALL was believed to have very limited applications in teaching speaking skills to the learners of English (James, 1996). Ahmad, Cornett, Rogers and Sussex (1985) argued that "The type of activities which are clearly not suited to CALL at present are those which require spoken production ..." (p. 104). However, from the beginning of the twenty first century into the present era, due to an increase in the ownership of mobile phones and the spread of internet connectivity, new ways of dealing with this issue have been proposed. One of these new strategies is considered to be podcasting. Indeed, many authors believe that podcasting can have significant effects on learners' speaking and listening skills (Pun, 2006; Stanley, 2006). For example, McQuillan (2006) pointed out several tasks that concentrate on oral production, such as using audio diaries, interviewing native speakers, and

holding talk shows where learners “can record themselves and classmates for a classroom assignment and provide speech samples to the teacher for assessment” (p. 6). In addition, Tavales and Skevoulis (2006) suggested that learners can possibly record themselves or native speakers and then engage in listening practice as they focus on pronunciation, grammar use, or intonation. Also, podcasting can improve learners’ self-studying skills by providing them with the opportunities to create and publish materials for a real audience (Stanley, 2006). Despite the benefits and advantages of including podcasting within teaching programs, as Chan, Chi, Chin and Lin (2011) argue, there is a scant literature on pedagogical designs of language learning podcasts, especially in the area of speaking skills. Accordingly, this study investigated a way of incorporating podcasting within the EFL classroom. For this purpose, 60 EFL upper-intermediate learners were recruited from an English language institute in Iran. These learners were randomly assigned into two experimental groups and one control group. The purpose of this study was to compare the effects of student-made podcasts and web-based podcasts on the EFL learners’ speaking skills. It was hypothesized that the learners who produce their own podcasts will outperform those who download the podcasts from the web in their speaking skills.

Review of Literature

Rosell-Aguilar (2007), in a review of commercial and academic podcasts, argued that educational podcasts should have the following features: 1) include the characteristics of the target language and culture; 2) materials used should be authentic; 3) podcasts should be of adequate length and be sufficiently engaging; and 4) portability and screen size of media players should be taken into account. According to Rosell-Aguila (2013), like many other innovations in language learning and teaching, the pioneering studies on podcasting have focused on examining the perceptions and attitudes of learners toward it. To begin with, Monk, Ozawa and Thomas (2006) in a study conducted at a Japanese university concluded that learners did not have positive attitudes and perceptions of podcasting as an educational material. The researchers suggested overabundance of untargeted materials and lack of design perspective as the likely reasons behind learners’ lack of interest in using podcasts. Another study by Stiffler, Stoten and Cullen (2011) indicated that learners did not have positive attitudes toward podcasting. Of the students who participated in this study, “more found the written material clearer and more understandable than the podcast” (p.146). However, quite recently, some studies have found positive attitudes of learners toward podcasting. For example, in research exploring the learners’ attitudes toward podcasting by using “Unified Theory of Acceptance and Use of Technology” based on the Information Systems theory, Ho, Chou and O’Neill (2010) claimed that the learners showed positive attitudes toward podcasting and the most important factor influencing learners’ decision to learn a language via podcasting was performance expectancy. In another study, conducted at a Singaporean University, Chan et al. (2011) created podcast projects to supplement classroom instruction for Chinese and Korean EFL learners. The results of the study showed that although the usage of podcasts was not compulsory, 85 percent of Chinese learners and 96 percent of Koreans used them. In a study exploring the motivation behind using podcasts, Bolliger, Supanakorn and Boggs (2010) examined the influence of podcasting on learners’ motivation in the online environment. The results of the study revealed that learners possessed a moderate degree of motivation to use podcasts and there were significant differences in their motivation based on gender, class standing and prior learning experiences.

Additionally, there have been different studies investigating the effectiveness of podcasts in improving language learning skills. In one study, Lord (2008) recruited 16 undergraduate learners of Spanish learning Spanish phonetics in the United States. The results of the study showed that the learners reacted positively to the podcasts and there was “at least some degree of improved pronunciation” (p. 374). However, in another study, Ducate and Lomicka (2009) explored the effects of podcasting on pronunciation skills and the results of the study did not show statistically significant improvements on the pronunciation skills of the learners. Abdous, Camarena and Facer (2009) studied the use of podcasting in eight language and literature courses at an American university. On the whole, the results of the study showed that podcasting had positive effects on learners’ study habits and improved learners’ language skills. In a similar endeavor, Facer, Abdous and Camarena (2009) investigated the impact of academic podcasting on improving the language skills of two university second language learning courses comprising 18 advanced level French learners and 30 elementary level Italian learners. The results of the study showed that podcasts helped learners in improving their reading, writing, comprehension and speaking skills. In a similar but more recent longitudinal study, Abdous, Facer and Yen (2012) compared various types of podcast applications in 27 university second language courses over three years. In one group, podcasting was carefully incorporated into the curriculum while the other group had the podcast materials as complementary to the course. As a result, the researchers found a stronger effect in the grades of the supplementary podcast group. In a different study, Hawke (2010) examined the incorporation of Internet-sourced podcasts in a listening course for graduate learners majoring in science. The course was intended to let graduate science learners to expand their scientific English listening abilities via a portable MP3 player on every occasion they are free, for instance as they are waiting for experimental results in their laboratories. Based on the obtained results, the researchers claimed that for lower-proficiency learners the use of supporting materials based on transcripts was necessary to solve the two problems associated with free-form use of available podcasts, i.e., excessive difficulty and background music effect. Also, Istanto and Indrianti (2011) conducted research at the University of Singapore to see how podcast lessons were used to optimize learners’ learning experiences. The results of the study pointed out that podcasting enhanced learners’ listening skills, grammar knowledge and knowledge of the culture of the target community. The researchers concluded that the podcasts are effective educational tools. In another effort, Kennedy, Newman Thomas, Aronin, Newton and Lloyd (2014) used a multimedia-based instructional tool called Content Acquisition Podcasts (CAPs). The results of content knowledge tests showed significantly higher scores for those who learned by CAPs compared to those who read. The main points of the literature review are summarized in the following table.

Table 1
Literature Review’s Main Points

Point A	Learners from different educational backgrounds hold different attitudes (both positive and negative) toward podcasting
Point B	Podcasting can moderately motivate language learners in the process of learning
Point C	There have been mixed results regarding the usefulness of podcasting on

	improving foreign language learners' language skills. However, the general tendency favors the use of podcasting in language classrooms
Point D	Podcasting as supplementary to language learning is considered more effective than podcasting as the main instructional tool
Point E	More studies are required if the educators desire a comprehensive understanding of the role and influence of podcasting on different language skills

Other studies have shown that the use of technologies and different media in teaching languages have extensive advantages on the improvement of teaching and learning grammar, vocabulary, reading, writing, pronunciation, listening and speaking skills (Levy, 2009). However, there is not enough research on the design of language learning podcasts (Chan et al., 2011). According to O'Bryan and Hegelheimer (2007), the first thing that the educators who decide to use podcasts should do is to determine instructional goals. Also, as Hegelheimer and O'Bryan's (2009) study makes clear, podcasting can be a promising tool in second language learning, yet more research is needed to examine it from different angles. As reviewed here, different designs have been used by researchers to incorporate podcasting in the language curriculum with various and sometimes contrasting results. Keeping these results in mind, one of the specific ways that language educators can achieve benefits from podcasting is integrating it into their speaking courses. As the above review of the available literature and also Burston's (2013) thorough review of mobile assisted language learning studies revealed, there seems to be no previous study directly investigating the effects of podcasting on foreign language learners' speaking skills in an EFL context. Accordingly, this study aims at adding to the literature by exploring the effectiveness of different approaches to podcasting. Therefore, based on the gap in the literature, the researchers propose the following research questions:

1. Is there any improvement in learners' speaking skills by the use of podcasting?
2. Is there any significant difference between the experimental groups and the control group?
3. Is there any significant difference between the student-made podcast group and the web-based podcast group?

Methodology

Study design

This study employed a pretest-posttest experimental design with two experimental groups and a control group. According to Bell (2010), the main idea related to the pretest-posttest design includes obtaining a pretest score of the result of interest before directing some treatment, accompanied by a posttest score after the treatment. In this study, a one-way ANOVA was utilized as the statistical test to analyze the means obtained from the groups. One-way ANOVA is a parametric test which is used to compare the means of two or more independent groups in order to find out if there are any significant differences between them (Mackey & Gass, 2005).

Participants

This study recruited 60 male high school learners of English in a language institute in Torbat-e-heydariyeh, Khorasan-Razavi, Iran. Learners' age ranged between 15-18 years old (Mean: 16.38, SD: 1.12). The language institute has been in operation for 10 years with an average of 700 learners in each semester distributed in different language proficiency levels. The reason why researchers only recruited male learners in this study was that the use of smartphone and access to the Internet is more prevalent among male learners in Iran.

In order to make sure of the homogeneity of learners in terms of English language proficiency, a sample of the IELTS test (available at www.ielts-exam.net) was adapted and administered to 100 learners to determine their general English proficiency. The reliability and validity of the test was estimated to be 0.82 and 0.79, respectively. Sixty learners who scored between 6 and 7 in the IELTS sample test were considered to be upper-intermediate learners by the researchers and were randomly assigned into control and experimental groups.

Procedures

After being selected based on the IELTS proficiency test 20 learners were randomly put into the control group, 20 learners into the first experimental group (Student-made podcast) and the last 20 into the second experimental group (web-based podcasts). The learners in the control group followed the communicative language teaching principles based on the American English File (3) syllabus. The learners were required to form pairs and groups asking and answering the questions and doing the different speaking activities that were provided in the book. The following figure outlines the major components of a session for the control group.

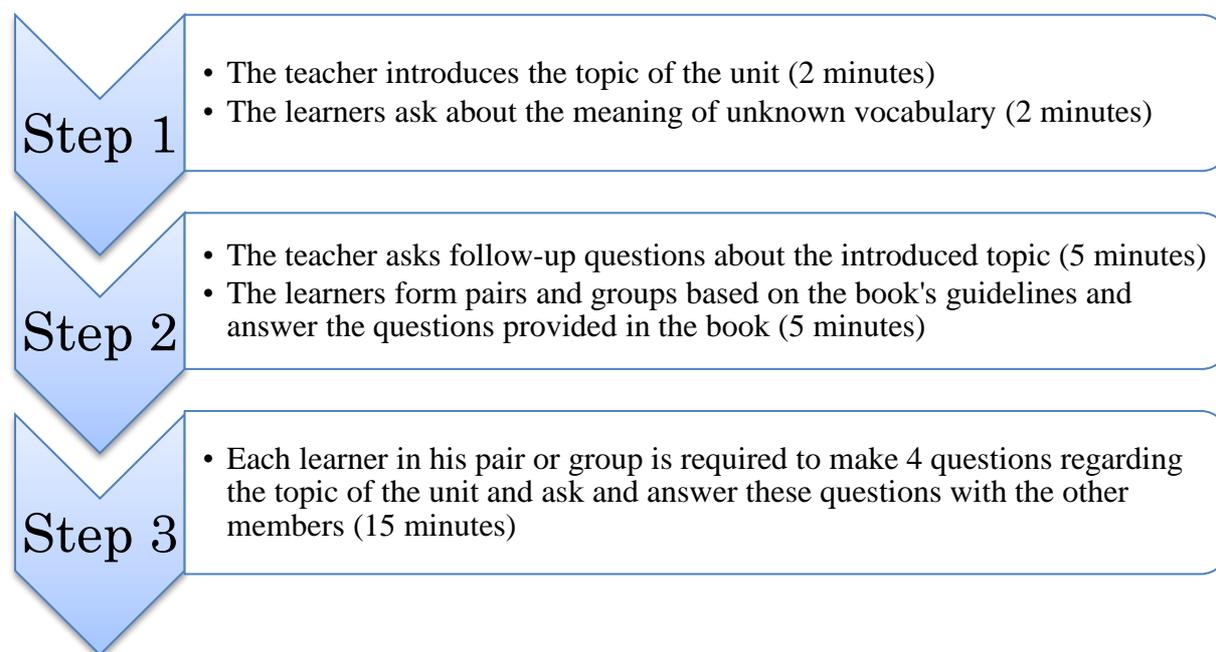


Figure 1. Lesson plan for the control group.

Learners in the first experimental group also used the American English File (3) textbook and additionally created podcasts of their pair and group discussions and activities. The teacher (one of the researchers) posed some questions related to the textbook topics and the learners were required to discuss the questions in their pairs and groups, record their discussions and

save the audio files as podcasts on their smartphones or tablets. The researchers employed an educational podcast sharing website available at <http://podomatic.com>, created an account for the whole class in the website with a shared username and password and asked the learners to upload their podcasts so they would be available to all. The podcasts were considered to be of acceptable quality.

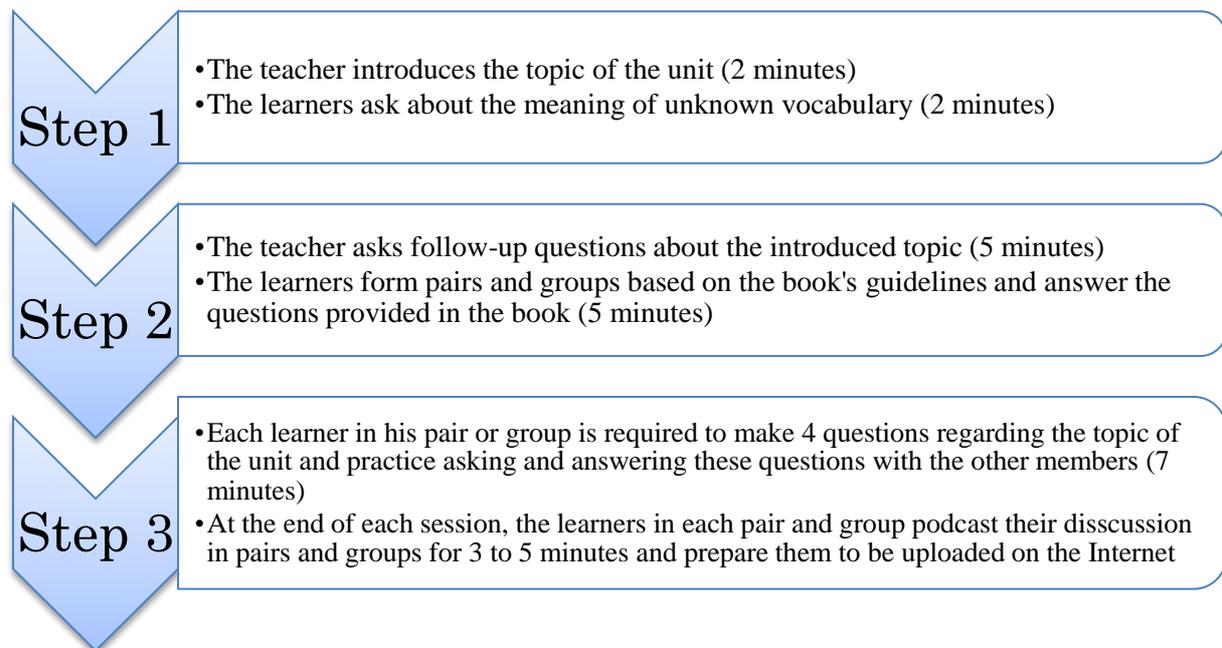


Figure 2. Lesson plan for the first experimental group.

Learners in the second experimental group were required to download specific educational podcasts from the web. The addresses for these audio podcasts were given in the researchers' blog available at www.educationalreform.blogfa.com. The learners were supposed to visit the blog and download the podcasts based on the guidelines provided. They were then required to listen to the podcasts the night before the class and discuss the topics of the podcasts in class with other learners in addition to working on the American English File (3) exercises and tasks. The selected podcasts' topics were similar or related to the topics of American English File (3) units. At the end of each discussion session, students were asked to record their conclusions regarding the topics they had been discussing in the class. These recordings were also uploaded as podcasts and shared for the group. In order to make sure that all the students downloaded and listened to the podcasts, the teacher checked it with sending an SMS to the learners and students replied and confirmed that. The following figure will show the procedure for the second experimental group.

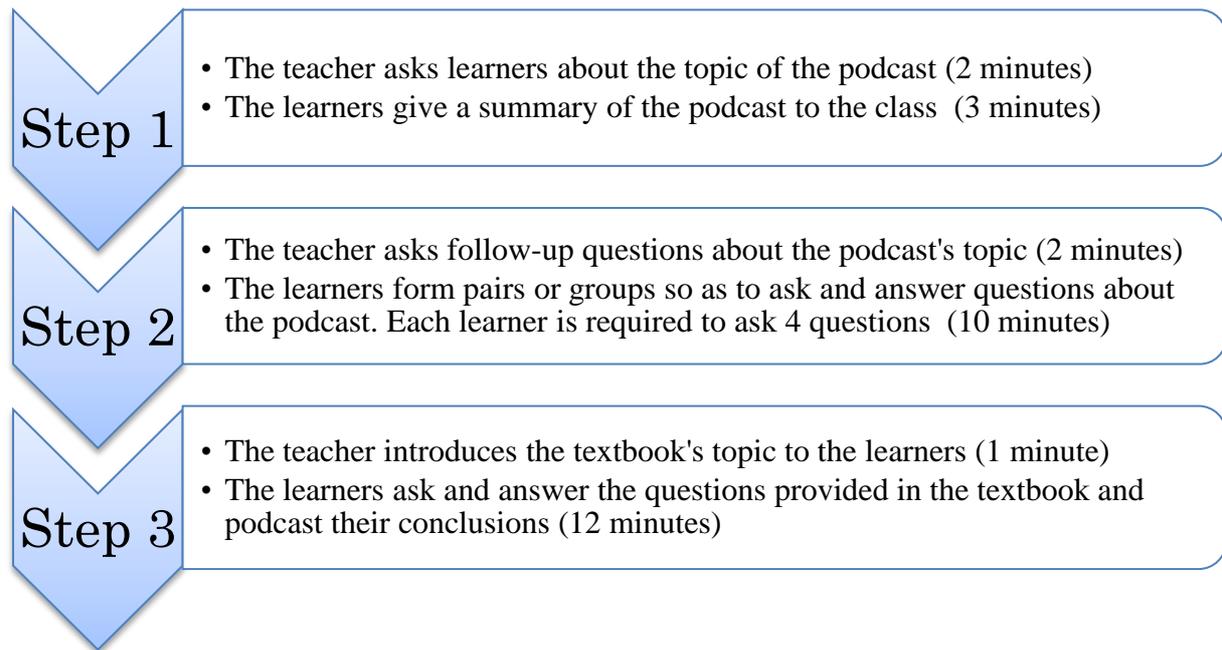


Figure 3. Lesson plan for the second experimental group.

Pre-Testing

Before receiving any instruction, all the learners in the control and experimental groups were tested on their speaking skills on the topics that they were supposed to work on in the treatment sessions. The test employed at the beginning of the study was a separate test from the IELTS sample test and comprised an interview by two qualified EFL teachers (one teacher holds a PhD and the other an MA in applied linguistics). Each teacher individually interviewed each student for 5 minutes (10 minutes in total) employing the rubric in Appendix 1. At the end, each learner received one score from each interviewer and his total score was an average of these two scores. The interviewers were not involved in the research process and only interviewed the learners at the beginning of the study and then again at the end of the study.

Instruction on how to download and upload podcasts

In two additional 30-minute sessions before the beginning of the treatment, the experimental groups' learners were taught about podcasting, how to download and upload podcasts and what they were required to do throughout the research process.

Treatment

In all the three groups, the learners participated in ten 30-minute sessions. In these sessions, the learners only focused on improving their speaking skills, so after 30 minutes each session was finished and the experimental group learners were required to upload the podcasting files on the website immediately or at home. The learners participated in three sessions every week and the treatment lasted for around one month. After the learners uploaded the podcasts to the website, the teacher of each group was required to visit the website, download the podcasts of his or her class, listen to the podcasts and prepare some comments for the learners regarding their speaking activities. The comments were written on a paper and were handed to the learners outside of the treatment sessions.

Post Testing

A week after the treatment, all the learners were interviewed again on their speaking skills by the same interviewers who performed the pretest. The total interview score was the average of the two interviewers' scores for each learner. In order to clarify the rating process in the pretest and posttest interviews, the interviewers had a discussion session with the responsible researcher regarding how to score the learners. The criteria were explained to them based on the scoring rubric (Appendix 1). Also, in order to clarify how the learners were scored, the interview performances of a high scoring learner and a low scoring learner is provided in Appendix 2.

Scoring

The interviews were scored based on a checklist (see Appendix 1) taken from www.ielts-exam.net. Rating was done based on five criteria: grammar, vocabulary, fluency, listening and voice and non-verbal communication. The marking scheme was first explained to the interviewers. Throughout the process of the study, the interviewers remained the same. The interviewers were required to perform a semi-structured interview every time. Interviewers were required to give scores on a scale ranging from 0 to 20. Inter-rater reliability for the pretest and posttest interviews were .88 and .90, respectively.

Results

The results of this study revealed some advantages of podcasting on EFL learners' speaking skills in that explicit use of podcasting helped students in the experimental groups to improve their speaking skills. The statistical parameters of mean, standard deviation as well as learners' achievement scores (out of a total of 20 marks) for both pretest and posttest are shown in table 1 below.

Table 2
Scores in the Language Test during Posttest Interview

		N	Mean Score	SD
Pretest	<i>Control group</i>	20	13.4000	1.75919
	Student-made podcasts	20	13.8000	1.98945
	Web-based podcasts	20	13.9000	2.19809
	Total	60	13.7000	1.96839
Posttest	control group	20	15.0000	1.86378
	Student-made podcasts	20	17.0500	1.27630
	Web-based podcasts	20	15.7000	1.30182
	Total	60	15.9167	1.71030

As it is clear from Table 1, the researchers used a balanced design where there are equal numbers of participants in each group. The means of the pretest scores showed close results: control group 13.40; student-made podcasts 13.80; and web-based podcasts 13.90. According to Table 1, it seems that the learners in all the three groups were homogenous with regards to their speaking skills in the pretest phase.

Then the learners in the experimental groups underwent the designated treatment while learners in the control group followed the typical classroom routines. One week after the end of 10 sessions of the treatment, the learners took the posttest. As can be seen in Table 1, the

mean of posttest results showed differences among the groups: control group 15, student-made podcasts 17.05 and web-based podcasts 15.70. As shown in Table 1, the learners in the student-made podcast group outperformed the learners in the other two groups in their speaking skills and the learners in the web-based podcast group did slightly better than the control group. The results of ANOVA test are provided in Table 2:

Table 3
Result of ANOVA Test

		Sum of Squares	Df	Mean Square	F	Sig.
Pretest	Between Groups	2.800	2	1.400	.353	.704
	Within Groups	225.800	57	3.961		
	Total	228.600	59			
Posttest	Between Groups	43.433	2	21.717	9.585	.000
	Within Groups	129.150	57	2.266		
	Total	172.583	59			

One of the assumptions of using an ANOVA test is searching for outliers. Based on our examination, there were no outliers in the data, as assessed by inspection of a boxplot. The other assumption that deserves consideration in performing an ANOVA test is checking for the normal distribution of scores. In order to check for this, we investigated the scores for the three groups by the use of the Shapiro-Wilk test of normal distribution. The results of the Shapiro-Wilk test showed that all the three groups scores were normally distributed ($p > .05$). In order to check whether the variances between groups for the dependent variable were equal, the researchers consulted Levene's Test of Homogeneity of Variance. The results showed that there was homogeneity of variances ($p = .164$). As Table 2 showed, there was no significant difference between the groups in the pretest ($.704 > .05$), while the results for the posttest showed significant differences between groups ($.000 < .05$). Therefore, it can be concluded that the use of podcasting had been effective in improving learners' speaking skills in experimental groups. The results for the second and third research questions are provided below. In order to find differences in the posttest groups' results, a post hoc test was run. The result of the post hoc test is as follows:

Table 4
Post Hoc Test Results

	group (1)	group (2)	Mean Difference (1-2)	Std. Error	Sig.
Posttest	control group	Student-made podcasts	-2.05000*	.47600	.000
		Web-based podcasts	-.70000	.47600	.346
	Student-made podcasts	control group	2.05000*	.47600	.000
		web made podcasts	1.35000*	.47600	.023
	Web-based podcasts	control group	.70000	.47600	.346
		Student-made podcasts	-1.35000*	.47600	.023

As depicted in Table 3, in the post test there was a significant difference between the student-made podcast group with both the web-based podcast and the control groups ($p < 0.05$).

Discussion and Implications

Swain and Lapkin (1995) suggested that output is an essential component of second language learning. One strategy that can be helpful for enhancing learners' language output is podcasting (Ducate & Lomicka, 2009). Both listening to and producing podcasts can be considered as valuable strategies for improving speaking skills (Rosell-Aguilar, 2013). However, Stockwell (2010) argues that while podcasting can be considered as a valuable resource for providing audiovisual material, it lacks an important element of language learning that is interaction. Countering this claim, Rosell-Aguilar (2013) argues that by using podcasts in pairs and group work activities, we can incorporate it in an interactive environment. In this study, in the student-made podcast group, the researchers tried to involve learners in pair and group work activities and at the same time urged them to use podcasting as a learning tool so as to make podcasting an interactive learning tool. The obtained results were in accordance with Ducate and Lomicka's (2009) study, that incorporating podcasting within language teaching procedures helps teachers to create meaningful and contextualized activities rather than simple drilling and error correction tasks. The results of this study showed that the learners in the student-made podcasts group outperformed the learners in the other groups in their speaking skills. Perhaps these results can be attributed to the contextualized and integrated use of podcasts in the student-made podcasts group as also found in previous research (Rosell-Aguilar, 2013).

Further, the results of this study are also in line with Facer et al.'s (2009) study, as they found using podcasts can improve learners' speaking skills. Moreover, the obtained results are also similar to the results of Abdous et al.'s (2012) study as they concluded that supplementary podcasts can have stronger effects on language learning than podcasts as the main teaching tools. By supplementary, they mean podcasts are not considered to be the main teaching and learning tools but something which can help in the process of teaching in addition to other tools. In this study, the researchers tried to supplement the American English File book with podcasts and make them interactive for the learners. Different researchers have shown that podcasting can be best considered as a complement to teaching rather than as the main medium of delivery of language learning content (Bennett, 2008; Daniel & Woody, 2010; Evans, 2008; Heilesen, 2010; Lee & Chan, 2007; Walls, Kucsera, Walker, Acee, McVaugh & Robinson, 2010). In the web-based podcast group, the learners considered podcasts as the main medium of instruction in lieu of other language teaching materials such as textbooks. According to Ip, Morrison, Currie, and Mason (2000), most online podcasts don't target second and foreign language learners. They claimed that a podcast without a learning goal will hardly facilitate learning. The results of the current study suggest that complementing language teaching textbooks with student-made learning podcasts can have greater beneficial effects than either component alone.

However, there are some limitations in this study that need to be considered for further research. First of all, podcasting was something new for the learners in the context of this study. Newness gave learners some type of anxiety and that seemed to lead some learners in both experimental groups to be reluctant to undergo treatment. Moreover, different teachers taught learners in each experimental group, so it may have had some effect on the learners'

overall scores. The other point is that the learners who participated in this study came from the same geographical background and were studying in the same language institute. This may limit the generalizability of the findings especially with regard to technological literacy. Furthermore, the results of this study showed a statistically significant difference between the treatment and control groups. However, the researchers have to acknowledge that the findings are small and there is a need for more large scale studies on this topics to increase the generalizability. Finally, the podcasts produced by the learners were only evaluated by the teacher of each class and there was not any negotiation regarding the quality and appropriateness of podcasts in the treatment sessions. The researchers suggest joint appraisal of podcasts produced in the classrooms by teachers and learners as an idea for further research.

Conclusion

Stanley (2005) maintains that podcasting, as a new technology, can have great potential in improving listening and speaking skills in second language classrooms. However, Chan et al. (2011) claim that the literature on podcasting show few efforts to describe some pedagogical principles for the design of language learning podcasts. The current study aimed at examining two different ways language learning podcasts can be incorporated into language classrooms. In one group, podcasting was considered as supplementary to teaching while in the other group, it was considered to be the main instructional tool. In order to see if podcasting is effective in improving foreign language learners' speaking skills, the following research question was suggested, "Is there any significant difference in EFL learners' development of speaking skills through use of podcasting in the language classroom?". The results of this study showed that podcasting can be an effective tool in language learning classrooms provided that it is included as a pre-planned design in the teaching and learning syllabus and functions as complementary to teaching. In this study, the learners in the student-made podcast group showed a significant improvement in their speaking skills compared to the other two groups. The podcasts in this experimental group were considered supplementary by the students. The results of this study may demonstrate podcasting to have benefits for the foreign language classrooms and may help learners to improve their speaking skills.

One implication of this study might be the need for more appropriate designs of podcasting in language teaching syllabi. Just providing learners with podcasts without incorporating them in a pre-planned and systematic way would not be a helpful enterprise. Learners need to consider podcasts not only as effective learning materials but also as efficient teaching tools. Also, based on the findings, those syllabus designers who are interested in the use of communicative language teaching methods in language learning classes could upgrade their design by finding effective ways to work podcasts into their syllabus.

The other implication is that the podcasts can be considered as authentic language learning materials provided that the tools for their production, recording and broadcasting are available to learners and teachers (Fox, 2008). Services such as podomatic.com can be considered easy and useful for making podcasts a regular teaching and learning material as they do not need a lot of technical expertise. Moreover, as an EFL context implies a lack of access to foreign language outside of the classroom, podcasting and its use anywhere, anytime can be considered a valuable tool for foreign language learners.

Although the present study suggested that student-made podcasting is more beneficial for language learning, there are areas that need to be studied further. One area for further research is integrating podcasting into classroom instruction of different language skills such as reading, pronunciation and grammar (Rosell-Aguilar, 2013). Another is to conduct studies with a variety of language learners, including university students and students from different educational backgrounds and across both genders. There are many methodological issues which need to be explored in order to improve the process described here. However, what is important is improving classroom learning through the integration of new technological advances and to achieve this purpose we may need more research to normalize the use of technology in language classrooms.

References

- Abdous, M., Camarena, M.M., & Facer, B.R. (2009). MALL technology: Use of academic podcasting in the foreign language classroom. *ReCALL*, 21(1), 76–95.
- Abdous, M., Facer, B. R., & Yen, C. (2012). Academic effectiveness of podcasting: a comparative study of integrated versus supplemental use of podcasting in second language classes. *Computers and Education*, 58, 43–52. doi: 10.1016/j.compedu.2011.08.021
- Ahmad, K., Cornett, G., Rogers, M., & Sussex, R. (1985). *Computers, Language Learning and Language Teaching*. Cambridge: Cambridge University Press.
- Bell, B. (2010). Pretest-posttest design. In N. Salkind (Ed.), *Encyclopedia of Research Design* (pp. 1087-1092). Thousand Oaks, CA: SAGE Publications.
- Bennett, E. (2008). Using supplementary podcasts to enhance campus-based courses: Students' perceptions and usage. *Learning Technology Newsletter*, 10(3), 6–9.
- Benson, P. (2004). Autonomy and information technology in the educational discourse of the information age. In C. Davison (Ed.), *Information Technology and Innovation in Language Education* (pp. 173–192). Hong Kong: Hong Kong University Press.
- Blaisdell, M. (2006). Academic MP3s, Is it time yet? Campus Technology. Retrieved from http://campustechnology.com/Articles/2006/02/SPECIAL-DOUBLE-FEATURE-.Academic-MP3s-Is-It-Time-Yet.aspx?sc_lang=en&p=1.
- Bolliger, D. U., Supanakorn, S., & Boggs, C. (2010). Impact of podcasting on student motivation in the online learning environment. *Computers and Education*, 55, 714–722. doi: 10.1016/j.compedu.2010.03.004
- Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994–2012. *Language Learning & Technology*, 17(3), 157–224. Retrieved from <http://llt.msu.edu/issues/october2013/burston.pdf>
- Chan, W., Chi, S., Chin, K., & Lin, C. (2011). Students' Perceptions of and Attitudes towards Podcast-Based Learning – A Comparison of Two Language Podcast Projects. *Electronic Journal of Foreign Language Teaching*, 8(1), 312-335.
- Chinnery, G. M. (2006). Going to the MALL: Mobile Assisted Language Learning. *Language Learning & Technology*, 10(1), 9–16. Retrieved from <http://llt.msu.edu/vol10num1/pdf/emerging.pdf>
- Clark, D., & Walsh, S. (2004). iPod-learning. Epic White paper. Retrieved from http://www.epic.co.uk/content/resources/white_papers/iPod.htm
- Dam, L. (1995). *Learner Autonomy 3: From Theory to Classroom Practice*. Dublin: Authentik.

- Daniel, D. B., & Woody, W. D. (2010). They hear, but do not listen: Retention for podcasted material in a classroom context. *Teaching of Psychology*, 37, 199–203. doi: 10.1080/00986283.2010.488542
- Ducate, L., & Lomicka, L. (2009). Podcasting: An effective tool for honing language students' pronunciation? *Language Learning & Technology*, 13(3), 66–86.
- Evans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers and Education*, 50(2), 491–498. Doi: 10.1016/j.compedu.2007.09.016
- Facer, B., Abdous, M., & Camarena, M. (2009). The Impact of Academic Podcasting on Students: Learning Outcomes and Study Habits. In R. de Cassia Veiga Marriott & P. Lupion Torres (Eds.) *Handbook of Research on e-learning Methodologies for Language Acquisition*. Hershey, PA: Information Science Reference. Retrieved from <http://www.igi-global.com>
- Fox, A. (2008). Using Podcasts in the EFL Classroom. *TESL-EJ*, 11(4), 1-11.
- Gromik, N. (2008). EFL learner use of podcasting resources: A pilot study. *The JALT CALL Journal*, 4(2), 47–60.
- Hawke, Ph. (2010). Using internet-sourced podcasts in independent listening courses: legal and pedagogical implications. *The JALT CALL Journal*, 6(3), 219-234.
- Hegelheimer, V., & O'Bryan, A. (2009). Mobile technologies and language education. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning* (pp. 31–349). Hershey, PA: Information Science Reference.
- Heilesen, S. B. (2010). What is the academic efficacy of podcasting? *Computers & Education*, 55, 1063–1068. doi: 10.1016/j.compedu.2010.05.002
- Ho, C-T.B., Chou, Y-T., & O'Neill, P. (2010). Technology adoption of mobile learning: A study of podcasting. *International Journal of Mobile Communications*, 8(4), 468–485.
- Ip, A., Morrison, I., Currie, M., & Mason, J. (2000). Managing online resources for teaching and learning. Proceedings Of AusWeb2K, the Sixth Australian World Wide Web Conference, Rihga Colonial Club Resort, Cairns, 12-17 June 2000. Retrieved from <http://ausweb.scu.edu.au/aw2k/papers/ip/index.html>
- Istanto, W. I., & Indrianti (2011). Pelangi Bahasa Indonesia Podcast: What, Why and How?. *Electronic Journal of Foreign Language Teaching*, 8(1), 371-384.
- James, R. (1996). CALL and the speaking skill. *System*, 24(1), 15-21.
- Kennedy, M. J., Newman Thomas, C., Aronin, S., Newton, J. R., & Lloyd, J. W. (2014). Improving teacher candidate knowledge using content acquisition podcasts. *Computers & Education*, 70, 116-127.
- Laing, C., Wootton, A., & Irons, A. (2006). iPod! u Learn? *Current Developments in Technology-Assisted Education*, 1, 514–518.
- Lee, L. (2005). Using web-based instruction to promote active learning: Learners' perspectives. *CALICO Journal*, 23(1), 139–156.
- Lee, L. (2011). Blogging: promoting learner autonomy and intercultural competence through study abroad. *Language Learning & Technology*, 15(3), 87–109. Retrieved from <http://llt.msu.edu/issues/october2011/lee.pdf>
- Lee, M. J. W., & Chan, A. (2007). Pervasive, lifestyle-integrated mobile learning for distance learners: An analysis and unexpected results from a podcasting study. *Open Learning*, 22, 201–218. doi: 10.1080/02680510701619810
- Levy, M. (2009). Technology in use for second language learning. *The Modern Language Journal*, 93(1), 769-782.
- Little, D. (1996). Responding authentically to authentic texts: a problem for self-access language learning? In P. Benson & P. Volley (Eds.), *Autonomy and Independence in*

- Language Learning* (pp. 225–236). London, UK: Longman.
- Lord, G. (2008). Podcasting communities and second language pronunciation. *Foreign Language Annals*, 41(2), 364–379.
- Mackey, A., & Gass, S. M. (2005). *Second language research. Methodology and design*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Manning, S. (2005). The promise of podcasting. *Pointers and Clickers*, 6(2), 1–6. Retrieved http://www.ion.uillinois.edu/resources/pointersclickers/2005_03/Podcasting2005.pdf
- McQuillan, J. (2006). Languages on the go: Tuning in to podcasting. *The International Journal of Foreign Language Teaching*, 2(1), 16–18. Retrieved from <http://www.tprstories.com/ijflt>
- McRae, P. (2010). The politics of personalization in the 21st century. *ATA Magazine*, 91(1). Retrieved from <http://www.teachers.ab.ca/Publications/ATA%20Magazine/Volume-91/Number-1/Pages/The-Politics-of-Personalization-in-the-21st-Century.aspx>
- Meng, P. (2005). Podcasting & Vodcasting: a white paper [Electronic version], University of Missouri, IAT Services, 1–14.
- Monk, B., Ozawa, K., & Thomas, M. (2006). iPods in English language education: A case study of English listening and reading students. *NUCB Journal of Language Culture and Communication*, 8(3), 85–102.
- Murphy, L. (2006). Supporting learner autonomy in a distance learning context. In D. Gardner (Ed.), *Learner autonomy 10: Integration and support* (pp. 72–92). Dublin: Authentik.
- O'Bryan, A., & Hegelheimer, V. (2007). Integrating CALL into the classroom: The role of podcasting in an ESL listening strategies course. *ReCALL Journal*, 19(2), 162–180.
- Pun, S. W. (2006). The educational applications of podcasts [In Chinese]. In *Hong Kong Association for Computer Education 2006 Year Book*, pp. 23–28. Retrieved from <http://www.hkace.org.hk/publication/yearbook/YearBook05/25-5-06Year%20Book1-56.pdf>
- Rosell-Aguilar, F. (2007). Top of the Pods - In Search of a Podcasting "Podagogy" for Language Learning. *Computer Assisted Language Learning*, 20 (5), 471–492.
- Rosell-Aguilar, F. (2013). Podcasting for language learning through iTunes U: The learner's view. *Language Learning & Technology*, 17(3), 74–93. Retrieved from <http://llt.msu.edu/issues/october2013/rosellaguilar.pdf>
- Sloan, S. (2005). Podcasting: An exciting new technology for higher education. Paper presented at CATS 2005, March, 25th, 2005. Retrieved from <http://www.edupodder.com/conferences/index.html>
- Stanley, G. (2005). Podcasting for ELT. Retrieved from <http://www.teachingenglish.org.uk/think/resources/podcast.shtml>
- Stanley, G. (2006). Podcasting: Audio on the Internet comes of age. *TESL-EJ*, 9(4). Retrieved from <http://www-writing.berkeley.edu/TESL-EJ/ej36/int.html>
- Stiffler, D., Stoten, S., & Cullen, D. (2011). Podcasting as an instructional supplement to Online learning. *Computers, Informatics, Nursing*, 29(3), 144–148. doi: 10.1097/NCN.0b013e3181fc3fdf
- Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. *Language Learning & Technology*, 14(2), 95–110. Retrieved from <http://llt.msu.edu/vol14num2/stockwell.pdf>
- Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, 16, 371–391.
- Tavales, S., & Skevoulis, S. (2006). Podcasts: Changing the face of e-learning. Retrieved from <http://ww1.ucmss.com/books/LFS/CSREA2006/SER4351.pdf>

- Walls, S. M., Kucsera, J. V., Walker, J. D., Acee, T. W., McVaugh, N. K., & Robinson, D. H. (2010). Podcasting in education: Are students as ready and eager as we think they are? *Computers and Education*, 54(2), 371–378. doi: 10.1016/j.compedu.2009.08.018
- Yoshida, R. (2013). Learners' self-concept and use of the target language in foreign language classrooms. *System*, 41, 935-951.

Appendix 1.

Evaluation grading rubric for TESOL TESL & TEFL speaking tests

CATEGORY	4	3	2	1	Score
Grammar	Grammar covered in class was used to communicate effectively.	A few minor difficulties arose from not using the grammar studied in class.	Grammatical errors led to many minor difficulties or one major breakdown in communication.	Grammatical errors severely hampered communication.	
Vocabulary	Vocabulary studied in class was used to express ideas eloquently.	A few minor difficulties arose from not using appropriate vocabulary.	Some difficulties arose due to limited vocabulary and/or bad diction.	Communication was severely hampered due to lack of vocabulary.	
Fluency	Student acted as a facilitator, helping the conversation flow and develop.	Some minor difficulties maintaining the conversation were evident.	Some effort was required to maintain the conversation. There may have been a few long pauses.	Much effort was required to maintain the conversation. There may have been many long pauses.	
Listening	Student responded to questions with appropriate answers, acknowledged all statements, and incorporated them into the	Student responded to most questions, acknowledged most statements, and incorporated many of these	Student failed to answer some questions appropriately OR failed to acknowledge some statements and incorporate these into the	Student didn't understand or ignored most questions and statements. Student may have been using notes.	

	discussion.	into the conversation.	conversation.		
Voice and non-verbal communication	Pronunciation was clear and inflection and expressions were used to enhance communication.	No serious problems arose, but better pronunciation, inflection, and/or non-verbal communication could have made communication more efficient.	Some communication problems arose due to unclear pronunciation and/or lack of inflection and/or expression. Student may have been difficult to hear.	Pronunciation, inflection, and/or expression confused communication. Student may have been very difficult to hear.	

Appendix 2.

A. Performance of a high scoring learner in the posttest interview

CATEGORY	4	3	2	1	Score
Grammar		The learner showed effective awareness of necessary grammatical rules with a few minor errors			3
Vocabulary	The learner employed the required vocabulary covered in the class				4
Fluency	The learner was able to negotiate his intention clearly with a few unimportant pauses				4
Listening	The learner was capable of understanding the questions clearly and responding to them appropriately				4
Voice and non-verbal		The pronunciation was acceptable with a few			3

communication		hesitations and the non-verbal communication was effective			
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B. Performance of a low scoring learner in the posttest interview

CATEGORY	4	3	2	1	Score
Grammar		The learner showed effective awareness of necessary grammatical rules with a few minor errors			3
Vocabulary		Although the required vocabulary was taught to the learner, he was not able to use it effectively			3
Fluency			To keep the conversation going, the interviewer had to help the interviewee		2
Listening			The learner was not able to understand some questions clearly and asked the interviewer for help		2
Voice and non-verbal communication		The pronunciation and the nonverbal communication were acceptable			3