Using Podcasting as a Revision Tool

by Iranian EFL Learners

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Abstract

This study was an attempt to investigate the effect of using podcasting as a revision tool in the recall of English vocabulary items after the teaching program and prior to the examination among Iranian EFL learners. It applied a quasi experimental approach to determine whether the students who were exposed to podcasting were better in recalling the learning material or not. For this purpose, 68 EFL learners were selected from an English teaching institute in Iran as participants. They were divided into two groups. The first group was exposed to the vocabulary items as presented in their textbooks by means of their conventional teacher student classroom settings, textbooks and hand written notes. The second group received the same material as audio recordings on podcasts. At the end of the semester (after 2 months), both groups were examined by the same multiple-choice test to assess their performance on the material. The results confirmed the positive effect of using podcasts as a revision tool in learning English vocabulary and better recalling of the words.

Keywords: Podcast, Revision, Vocabulary, Exam, EFL learner

1. Introduction

Podcasting is the process of transferring information from the World Wide Web onto the handy, portable devices which the learners are able to carry them "on the move" and listen to or watch them when, where and as frequently as they are willing to. Podcasting as a division of mobile learning (M-learning) provides the possibility to learn anywhere, anytime and also fits well within a life-long learning framework (Holzinger, Nischelwitzer & Meisenberger, 2005). In other words, the learner is no longer restricted to learn at fixed locations. Moreover, the location where learning takes place can become a relevant part of the learning context (Baldauf, Dustdar & Rosenberg, 2007).

Some of the most important characteristics of podcasts while working with them in the academic settings, as mentioned by other researchers like Evans and Gibbons (2007), are their efficiency (the time learners needed to spent studying for a given amount of learning), their effectiveness (the amount of learning obtained for a given amount of material), their receptiveness (the amount of learning expected for a given amount of material), and the learner's perceived relationship with the lecturer when listening to them.

The hypotheses for this study were formulated in four categories as follows:

H1: Learners believe that it takes less time to revise from podcasts than from notes.

H2: Learners believe that revising from podcasts is more useful than that from notes or textbooks.

H3: Learners feel more receptive to revision material delivered as a podcast than that in a traditional revision lecture or a textbook.

H4: Learners feel they can better relate to their lecturer in a podcast than in a traditional revision lecture.

The first hypothesis relates to comparing podcasts with notes rather than textbooks or traditional revision lectures, for two reasons. Firstly, like notes, the time learners choose to spend learning from podcasts is flexible; they can pause or repeat them as often as they like (this is not true of a traditional lecture). Secondly, like notes, podcasts are designed to summarise the material in some way (traditional textbooks do not provide such summaries, although more learning-oriented ones may do) (Evans & Gibbons, 2007).

The second hypothesis tries to compare podcasts with notes and textbooks, rather than revision lectures. The reason for this is that the actual revision tools available to students for the module involved in the experiment did not include revision lectures.

The third hypothesis compares podcasts with textbooks and revision lectures. The reason for this is that they are all alternative forms of direct communication between the educator and the learner (the learner's notes are indirect because the information has been partially processed by the learner before being written down).

The fourth hypothesis considers less the actual mechanism of delivery, as the learners' relationship to the educator behind that mechanism. It only considers podcasts and revision lectures (not notes or textbooks).

Moreover, although the primary motivation was to determine the effects of using revision podcasts, there was also an attempt to improve the learning in one of the courses. Therefore, it was tried to adopt a research methodology (Reason & Bradbury, 2001) in which learners were invited to become active participants in the study to investigate whether podcasting would enhance their learning experience.

2. Literature Review

No matter where we turn, we are barraged with evidence that digital technology is virtually affecting every aspect of our lives. Yet what has been the impact of technology in teaching and learning in a language classroom? To understand the state of technology in language learning today, one needs to consider the different ways that technology can have impact on different aspects of language and learning. This paper presents an overview on the theoretical and practical implications of technology, particularly multimedia, on language, specifically the teaching and learning of vocabulary by means of podcasting as a very important component of language. It is also important to note that although obviously mobile learning may be advantageous to learners, there are also limitations to be considered. Also, it is not yet possible to respond in real-time to the learners' actions in the same way a good teacher would (Chinnery, 2006). All these facts highlight the importance of giving consideration to the way in which the learners interact with the mobile application and on the kind of learning material that can be offered.

2.1 What is a Podcast?

A podcast is an audio recording delivered by means of a static URL including a Real Simple Syndication (RSS) feed (Mack & Ratcliffe, 2007). Podcasting has become a trendy medium for accessing and assimilating information by users (Copley, 2007). Users can download and install the iTunes software program on their computers easily to be able to access and download podcasts through RSS channels to computers or portable devices such as MP3 players or iPods (Fose & Mehl, 2007). Podcasting is a medium by means of which a wide variety of messages can be communicated. Vogele and Gard (2006) also distinguish three categories of administrative podcasts (e.g., general information, guides), special lecture series (guest lectures, commencement lectures, etc.), and classroom podcasts (anything involving curriculum teaching).

Currently, there are three types of podcasts being generated and used: audio-podcast, enhanced podcasts, and video podcasts (Liu & McCombs, 2008). Audio-podcasts contain audio only and require a comparatively small storage space. Enhanced podcasts are a blend of audio and digital still images. Video podcasts consist of audio and video and require larger storage space.

Podcasting involves downloading video or audio files (broadcasts) onto a digital media player by means of a computer. The advantage of doing so is that these files can be later watched or

listened to where, when and as many times as the learners are willing to. Using internet has brought about the opportunity for the teachers and educators to communicate and interact with the learners even outside of the school environment or academic settings.

E-learning provides the learners with the chance to review the material wherever and whenever they want and as asserted by Evans and Fan (2002), it allows learners to review material and gain feedback. The possibility to learn anywhere and anytime is compatible with a life-long learning framework (Holzinger et al., 2005).

M-learning generally possesses all the characteristics of e-learning but it is more user-friendly in that it is portable and the learners are able to listen to the material or watch them as stated by Evans and Gibbons (2007), "on the move". Using wireless and portable technology expands the access of the learners and they can carry their learning materials wherever they go. Due to the portability and ease of moving of these devices, learners can make sure that they have the chance to review the material in case that any free time appeared.

A big benefit of broadcasts is that they are published on the web and can be easily transported to portable devices so the learners can watch or listen to them any time they want. Podcasts have an extra advantage which is the material is delivered straightly from the source Internet location to the gadget, rather than requiring the student to seek it out and download it (Campbell, 2005). This assists learners by freeing them from having to search for, locate, and recover the material. The learners are also capable of using the same material on their PC so those students who do not have portable devices are not disadvantaged from the access to material. Norbrook and Scott (2003) believe that the most motivating factor while using a mobile device is the fact that the device is always immediately available anywhere you want to use it. A second major advantage is mentioned as the possibility to adapt learning content to the context the learner finds him- or herself in. Fransen (2008) highlights the fact that little research has so far been done on the effectiveness of mobile learning.

2.2 Teaching by Means of Podcasting

Several educators have implemented podcasts in conventional courses by recording either lectures or providing extra materials to students for access outside the classroom (Copley, 2007; Fose & Mehl, 2007). Podcast may be delivered by means of a system such as Blackboard or uploaded to a podcast-hosting website (e.g., iTunes University). It appears that podcasts may also have potential profit for students in distance learning environments. Lee, McLoughlin and Chan (2008) found that collaborative development of audio learning objects supports students' conceptualizations of disciplinary content as they share with peers, create social perspectives, and negotiate meaning together.

In a research by Copley (2007), podcasts were used by students in the preparation of assignments, note-taking, and review of missed lectures. Most students reported very positive experience and believed that podcasts in conventional courses are very useful. Evans (2008) also reported that traditional students found the use of podcasts satisfactory, effective, and appealing.

Furthermore, replaying repeatedly can be regarded as the most obvious benefit of podcasting. Sufficient evidence indicates that students use podcast while doing revisions and preparing for exams, and there is some evidence that they consider podcasts to be more reliable and effective than their own notes (Evans, 2008).

The integration of various podcasts in an online learning environment is becoming more frequent in higher education (Caladine, 2008). Boulos, Maramba and Wheeler (2006) propose that podcasts can be used to present instructional material in an online learning environment for students to learn at their own speed and time. McCombs and Liu (2007) in a study compared grades for two semesters teaching the same course with and without podcasts. In the podcasting class 12% more top grades were given, and the grade average was also higher. Two thirds of the students responded that they found podcasting helpful to getting better grades.

Chan and Lee (2005) also pointed that podcasts can be implemented in an online environment to help reduce students' feelings of isolation and produce a sense of social presence. On the other hand, online learners may feel inundated by the number of materials when podcast use is a requirement in addition to other course tasks (Fose & Mehl, 2007).

Podcasting can also be used as an enhancement to supervision. Carle, Jaffee & Miller (2009) offered a particularly complex case where all group discussions were taped and later commented upon by the instructor, making it possible to reach every individual in the course, and at the same time it encouraged active and constructive participation. Generally, podcasted rather than face-to-face feedback has been considered useful, since it requires students' more precise and detailed understanding of the teacher's comments (France & Wheeler, 2007).

Podcasting has recently attracted more attention in the literature. Many articles for practitioners have been published, and research on the utilization of podcasts, their usefulness, effects on isolation and inclusiveness has been conducted (Copley, 2007; Evans, 2008; Chan & Lee, 2005). However, studies aimed at investigating students' motivation with the use of podcasts in online courses are limited.

2.3 Related Study in Iran

Khazaei and Ketabi (2011) in a similar study on mobile learning in Iran by using mini-laptop as the M-learning device reported that second language (L2) learners with high-visual and high-verbal abilities find it easier to learn the content presented with both pictorial and written annotations. However, L2 learners with low-visual and low-verbal abilities benefit from learning materials presented without annotations. Furthermore, delivery of learning materials with pictorial annotation to learners with high-visual ability and the delivery of learning materials with written annotation to learners with high-verbal ability result in better vocabulary learning.

2.4 Theoretical Background

Multimedia learning is based on a cognitive theory which draws on dual coding theory, cognitive load theory, and constructivist learning theory. From dual coding theory the

concept that visual and verbal materials are processed in different processing systems is extracted (Paivio, 1986 cited in Mayer & Moreno, 2002). Podcasting is aligned with a constructivist view of the learning processes; the learner builds knowledge through active examination, observation, processing, and interpretation (Rosell-Aguilar, 2007).

Modern learning theories emphasize the role of learner in the process of learning and believe that learning is an activity employed by the learner himself. Knowledge cannot be transferred from one person to another, i.e. from the teacher to the student. Knowledge has to be built by the learner himself. These conditions form the principles of constructivism. Construction principle believes that learners construct their own knowledge by integrating new knowledge with previously acquired knowledge. Authenticity principle is based on the idea that learners profit from working with real-life tasks in which they can perform meaningful actions to promote their own understanding. Elaboration principle maintains that learners profit from multiple perspectives or representations allowing them to form rich mental models of existing phenomena. Social principle states that learners profit from collaboration with peers allowing them to articulate, expand and refine their knowledge and based on self-regulation principle, learners set their own learning goals, create a personal understanding of the task at hand and plan and monitor their own learning activities (self-regulation principle).

In constructivism, access to rich information sources, such as web-based resources and simulations, interactive representational formalisms, and computer-mediated communication supports the development of learning environments in which constructive learning is supposed to take place (Akhras & Self, 2002). Currently, new technologies are strongly associated with constructivist approaches to learning. Different views on constructivism exist nowadays, but Brown, Collins and Duguid (1989) and Jonassen (1991) as the advocates of constructivism share the same view.

3. Methodology

3.1 Participants

The participants of this study were 68 learners of English in an English teaching institute in Tehran, capital of Iran. They were receiving English instructions twice a week for about two hours each. For the purpose of the study, two classes of 34 language learners under the same instruction were selected. The proficiency level of the learners and their distribution in each class courses were indicated by a placement test before the beginning of the academic semester by the institute and the learners were considered to be of equal level proficiency i.e., upper intermediate, in both classes. The classes were mixed gendered and the participants' age range was from 25 to 55.

3.2 Materials

The students were not given any special instrument to access the podcast episodes. A pilot survey of level-two students revealed that 70-80% of the students in the experimental group possessed a kind of portable MP3 player. The students were provided with a simple guide telling them how to access the podcast episodes via a PC or using a podcast, but were not

otherwise given any special support. The survey contained 15 five-point Likert-scale questions, two open-ended questions and six demographic questions (see Appendix).

The podcasts were recorded and edited using GarageBande on an Intel MacBook Pro running Mac OS X (10.4). They were uploaded to the Web using Cyberducke 2.7.3. Each podcast consisted of a 4-min MP3 audio recording of the course lecturer reviewing the contents of each teaching session and adding clarifications.

3.3 Instruments

The data collection instruments were placement tests and face to face interview.

3.3.1 Placement Test

Learners were given a placement proficiency test adapted from TOEFL practice test prior to the beginning of the semester and were equally distributed in two classes of the same number in the intermediate level.

3.3.2 Posttest

After the period of experiment, a two-month semester, both classes were given the same multiple choice vocabulary test extracted from the Business Vocabulary book sample tests, the validity of the test has been approved by internal and external examiners and the reliability coefficient was reported as .84 for the 30-item multiple-choice vocabulary test.

3.3.3 Face to face interview

After the test, 10 participants from the experimental group were randomly selected to answer to 5 questions related to their attitudes toward using the podcasts in their revision procedure and motivation for more revision of material and an open-ended question related to their feelings while using the podcasts for preparation before the exam.

3.4 Design

This study applied an experimental design with a control group and an experimental group. The instruction remained the same for both groups during the semester and in the preparation stage i.e., revising the material and getting ready for the final exam the experimental group received the audio recordings of the classroom lectures on podcasts and the control group had access to their self prepared notes and textbooks. The scores of both groups were then compared to see whether the use of podcasting was effective in recalling the material on the performance of learners in the final exam.

4. Results

The results of the study indicated a difference in the means of the two groups in the paired T-test performed by the SPSS. The group using podcasts in reviewing the material for the final examination performed better in terms of the scores they achieved in the test. As indicated by Table 1, mean score of the students in group A was reported as 18.058, whereas the control group who used their self made notes and traditional ways of preparation for examination had the mean of 16.147.

Table 1. Mean scores and standard deviations of each group

	Group 1: Podcasts	Group 2: Traditional Review
Participants	34	34
Mean	18.058	16.147
SD	1.126	1.305
Minimum	16	14
Maximum	20	19

The standard deviation of each group was reported as 1.126 for the experimental group, and 1.305 for the control group, the standard error was also computed as .1932053, and .204092 respectively. The comparison of grades by Bonferroni and Bartlett's test confirmed the results of the study in 95% confidence level and the P value above F indicated the effectiveness of the method.

5. Discussion

The results show that students like the flexibility offered by podcasts in terms of the ability to study every time and in all places which is not normally possible using the traditional revision tools of textbooks and notes. This implies that podcasting can fill an important needs gap by allowing learners to continue the learning activities when it might not normally be possible. However, podcasts did not appear to offer much in the way of facilitating multi-tasking, with most people claiming that they did not undertake any other activities whilst listening to podcasts.

The question about listening to podcasts whilst doing something else was an attempt to draw out whether the mobile features of podcasting translate into any other activities. With most people disagreeing, the indications are that travelling is the main mobile benefit. The overall research aim was to determine whether revision podcasts enhance the learning process. The results provide support for three out of the four hypotheses suggesting that they do. The answers to the first pair of questions indicated that students believe that revision podcasts are quicker ways to revise than using their own notes (H1). Podcasts are self-contained broadcasts that immediately engage the learners with the outcomes of a given lecture. By contrast, revising from notes requires learners to expend cognitive energy in re-familiarizing themselves with the material in the context in which they first encountered it.

The results from the second and third pairs of questions indicated that the students report that podcasts are more effective revision tools than textbooks, but not their own notes. This means that they claim that they learn more from the podcasts than reading the corresponding section from the textbook. The flexible nature of podcasts may mean that it is easier for learners to actively engage with material than when reading. The fact that they report they do not find podcasts more effective than notes suggests that the summarising format of the podcasts was of particular benefit in helping learners focus on the important aspects to the subject without getting distracted.

The results from the fourth and fifth pair of questions indicate that the participants reported that they were more receptive to podcast material than material delivered in the form of a revision lecture or from the textbook (H3). All of these are types of direct communication between the educator and the learner. This suggests that learners may feel more engaged when listening to a podcast. Through giving learners more control of the learning process, podcasts can encourage the development of an active relationship with the material. By contrast, textbooks and lectures can encourage a passive relationship in which the learner takes the role of a simple recipient of information. Until recently, perhaps, the primary role of lectures and textbooks was seen as delivering large amounts of information.

Taken together, these results provide good evidence to suggest that students think that podcasts enhance their learning process, as reported in their responses. This suggests that a better interpretation is that they find podcasts to be more efficient revision tools. Future studies can involve questionnaires that draw out efficiency as opposed to duration, perhaps by getting students consider equal time periods of study for each. They can also measure the number of times students carry out repeat listening to the podcasts in an effort to measure the total listening time. An alternative explanation for the belief that podcasts are more effective than the textbook is that this is because they are geared towards assimilating and re-presenting course content (i.e., revising). However, in combination with the evidence that students are more receptive to material in podcasts than in revision lectures, it would appear that students feel more engaged and this may be a better explanation for why they believe them to be more effective revision tools.

Delivering revision material using the more socially acceptable medium must surely enhance the learning process. However, if students were genuinely favouring podcasting as a medium over traditional alternatives, this is expected to be reflected in all their responses. However there were two instances in which there were no significant differences in comparisons of the two media: comparing the effectiveness of podcasts with their notes (H2) and comparing receptiveness of podcasts with revision lectures (H4). This suggests that they are more discerning in their answers, and cannot be dismissed as merely giving the socially acceptable response.

In short, the results suggest that students find podcasts to be efficient, effective, engaging and easily received learning tools for revision. This is consistent with both Baird and Fisher (2006) and Edirisingha and Salmon (2007) in their reports that learners found podcasts helped them engage in the material. It also supports Miller and Piller's (2005) observation of increased student satisfaction ratings. The revision period is usually a time of high stress for students prior to their exams.

Thus, the results also reinforce the idea that podcasts might contribute to a reduction in student anxiety as found by Chan and Lee (2005). The use of the podcasts whilst travelling makes them more accessible than some of the traditional alternatives. This means that they can accommodate a wider range of learning practices. This is consistent with Cebeci and Tekdal (2006) in their findings that podcasts make material accessible to a wider diversity of learners. The application of mobile learning devices has been given significance in recent

years. Yet, as any other teaching/learning instruments, the strategy of how to use this technology to best fit the needs and requirements of the learners considering their learning preferences, individuality and affective factors, is what that makes the tool to become effective or a spark in the dark and fade away after a brilliant emergence.

6. Conclusion

The study showed that the developed mobile application motivates students to use it and that the application offers sufficient learning opportunities to create a learning effect. The application has proven its worth as an addition to the formal teaching of English at school. It was demonstrated that time on task can be enhanced by providing the learner with an opportunity to learn in the informal context of his or her spare time.

Overall, it has been shown that considering their test scores in the final examination, students performed better while using podcasts and mobile devices in reviewing the learning material after the teaching sessions and prior to the examination. This can be considered as the result of their better and more frequent access to the learning material during the preparation days before the exam and being more motivated and inclined to use technology as an academic tool. Yet, studies need to be done to determine how these tools can be tailored, specified, programmed and then implemented to the best interest of the learners.

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Appendix

Please answer the questions below.

Where not otherwise indicated, questions use the following five-point Likert scale:

(a) Strongly disagree, (b) Disagree, (c) Neutral, (d) Agree, (e) Strongly agree

1. Are you (a) female (b) male?

2. How old are you (in years)?

3. The number of months I have been listening to podcasts is

(a) 0–5 (b) 6–11 (c) 12–17 (d) 18-23 (e) 24 or more

4. I used the following to listen to the revision podcasts provided for this module

(a) iPod (b) Another MP3 player (c) I only listened using my PC

5. I think reading from my notes is an effective way to revise.

6. I think reading from the textbook is an effective way to revise.

7. I think listening to the podcasts is an effective way to revise.

8. I think it is important to be able to listen to the podcasts where and when I want.

9. I listen to podcasts whilst travelling.

10. I listen to the podcasts whilst doing something else.

11. I think that reading my notes is a quick way to revise.

12. I think that listening to a podcast is a quick way to revise.

13. I have listened to the first podcast.

(a) Zero (b) Once (c) Twice (d) Three or more times.

14. I have listened to the second podcast.

(a) Zero (b) Once (c) Twice (d) Three or more times.

15. I intend to listen to some of the podcasts again.

16. I feel I can relate to the lecturer in a traditional revision lecture.

17. I feel I can relate to the lecturer in a revision podcast.

18. When revising, I feel receptive to learning material in a traditional lecture environment.

19. When revising, I feel receptive to learning material when reading a textbook.

20. When revising, I feel receptive to learning material when listening to podcasts.

21. Are there any other comments you wish to make about your experience of revision podcasts?

22. If you are willing to take part in a short interview, please enter your email address below.

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