

Audio Podcast Retelling versus Corpus-Based Learning and Vocabulary Knowledge Development of English Language Learners

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This study aimed to investigate the effects of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian English language learners. To conduct the study, 60 homogenous students were selected as the participants. They were divided randomly into three groups, two experimental groups and one control group, each consisted of 20 students. The participants then took part in the pretest. The first experimental group was treated via teaching vocabulary through podcasts, and the second one was treated via teaching vocabulary through corpus examples. Finally, all the participants took part in the posttest. The results of the data analysis showed that the participants in the corpus-based learning group significantly outperformed the participants in the podcast group. The results of this study could be significant for EFL learners, EFL teachers, material developers, as well as, teacher trainers.

Keywords: audio podcast, corpus, corpus-based learning, podcast retelling, vocabulary development, English language learners

INTRODUCTION

Vocabulary learning is a crucial part of learning a second language and learners need a large vocabulary size to become efficient users of the target language (Schmitt, 2008). Many researchers emphasized the central role of vocabulary instruction in second language education (e.g., Bernhardt, 1991; Nation, 2001; Read, 2000). Therefore, many studies have been done to find ways to facilitate the process of L2 vocabulary learning (e.g., Boers, Eyckmans, & Stengers, 2004; Goodfellow, 1994; Groot, 2000; Hunt & Beglar, 2005). Among the studies done in this area, some have been done within the Iranian EFL contexts (e.g., Ahmadi, 2016; Ashraf, Motlagh, & Salami, 2014; Baleghizadeh, Yazdanjoo, & Fallahpour, 2018; Bastanfar & Hashemi, 2010; Davoudi & Yousefi, 2016; Harji, Woods, & Alavi, 2010; Hoa & Trang, 2020; Soleimani & Akbari, 2013). However, due to the problems students face in learning vocabulary in a new language, there is much room for further studies to be done in this regard. Therefore, finding innovative techniques to aid EFL learners to acquire new vocabularies effectively seems to be essential.

Citation: Razaghi, A., Faruji, L. F., & Salehi, M. (2022). Audio podcast retelling versus corpus-based learning and vocabulary knowledge development of English language learners. *Anatolian Journal of Education*, 7(1), 181-196.
<https://doi.org/10.29333/aje.2022.7114a>

Among different methods used for vocabulary instruction corpus-based approach has grown prominence over the past four decades. In fact, the influence of corpus has been of three main types (Cobb & Boulton, 2015). The first lies in improved descriptions of language varieties and features which can inform aspects of the language to be taught; the second makes corpora and tools for analysing them available to the teacher, and the third puts them directly into the learner's hands. According to Siddiq et al (2021), corpus can be used for lexicon, psychological, historical, lexical, semantic, semiotic, pedagogical, acoustical and phraseologic drifts in language over time and genre. Therefore, it seems that the future of corpus linguistics is open to exploration. However, using corpus for language learning purposes has become available for many learners only with the development of computer technology since the 1960s (e.g., Godwin-Jones, 2001; Reppen, 2010; Sinclair, 2014).

In fact, whereas originally, most pedagogical applications were of indirect nature with corpus-based studies informing the contents of textbooks and reference tools (e.g., word lists, dictionaries, and grammars), the interest in more direct applications, when either teachers or learners interacted with corpora themselves, started to grow from the 1980s (Vyatkina & Boulton; 2017).

Warschauer, and Lee (2017) stated that unprecedented technological change is transforming classroom environments, often leading students to read electronic texts on computer screens (i.e., digital reading) instead of paper-based textbooks. Digital reading may offer some potential advantages. For example, vocabulary learning through reading could benefit from multimedia environments that provide textual (e.g., synonyms, definitions), audio (e.g., pronunciation, sound effects), or visual supports.

Among recent empirical studies examining the effect of using corpus in foreign language teaching contexts, Liu and Jiang (2009) examined the effect of integrating corpus and contextualized lexicogrammar. They conducted their study at one Chinese university and two U.S. universities, involving 244 participants (236 EFL/ESL students and 8 instructors). A variety of data were collected, including students' corpus search projects and reflection papers, teachers' lesson plans and teaching journals, and finally, a post study assessment survey. Analysis of the data revealed several positive effects of the approach, such as improved command of lexicogrammar, increased critical understanding of grammar, and enhanced discovery learning skills.

In line with the previous study, Gordani (2013) examined the effect of integration of corpora in general English courses on the students' vocabulary development. Gordani used an online corpus-based approach integrated into 42 hours of reading comprehension classroom instruction to test its effect on vocabulary development of EFL learners. The results of the analysis revealed that using corpus integration had a significant effect on vocabulary knowledge development.

Paker & Ergül-Özcan (2017) also investigated the effectiveness of corpus-based vocabulary teaching activities as well as students' attitudes towards concordance-based materials when corpus-based tasks in English vocabulary learning were used. The results of the attitude questionnaire revealed that the students' attitudes were positive towards using corpus-based vocabulary activities. The post test, questionnaire and interview data indicated that using corpus-based activities in vocabulary teaching was fruitful for students. Thus, they concluded that using corpus-based vocabulary materials were more effective than using textbooks or dictionaries.

In another study Sinha (2021) explored EFL learners' perception of and attitude to corpus as a vocabulary learning tool. Using a questionnaire, data were collected from thirty-two first-year undergraduate students enrolled in an introductory English language course at a private university in Bangladesh. The results of the study showed that EFL learners had both positive and negative attitudes towards corpus-based vocabulary teaching and learning. Overall, they think that corpus is an effective tool for learning new words, but they also complained about the nature of corpus data which often makes learning difficult for them. Most of them also expected teacher assistance, and hence the

absence of teacher guidance might greatly impact the success of corpus-based vocabulary learning, especially if the learners lack any prior experience of using corpora.

Although, the use of corpora in second/foreign language (ESL/EFL) classes has established to be a valuable tool in teaching vocabulary and natural language use (Ashkan & Seyyedrezaei, 2016; Cobb, 2018; Cobb & Boulton, 2015; Kilgarrieff, Charalabopoulou, Gavrilidou, Bondi, Khalil, & Johansson, 2011; Lee, Warschauer, & Lee, 2017; Paker & Ergül-Özcan, 2017; Siddiq, Arif, Shafi, & Masood, 2021; Sinha, 2021; Vyatkina & Boulton, 2017), there has been little research on investigating the corpus-based tasks openly in the classroom (Ashkan & Seyyedrezaei, 2016). It seems that there is much underexplored potential in bringing this area of research more closely together with theories and pedagogical principles of instructed second language acquisition (Vyatkina & Boulton, 2017).

On the other hand, different types of podcasts have been emerged due to the developments in computer technology and its implementation in language learning and instruction. 'Podcast' is a technology for delivering audio files to listeners over the Internet (Campbell, 2005). It consists of a series of regularly produced audio and/or video files which can be automatically downloaded to a computer or video device (Braun, 2007). Podcasts greatly improve language learners' performance not only in speaking and listening, but also in other language areas such as grammar, pronunciation, and vocabulary (Hasan, 2013).

Regarding the use of podcasts in language learning, Abdous, Camarena, and Facer (2009) in their study, compared the academic benefits of incorporating podcasts into the curriculum and using them as a supplemental/review tool. In their comprehensive examination, they put forward the idea that podcast technology has the potential to afford greater benefits if it is used more than simply as a tool for reviewing.

Putman and Kingsley (2009) also explored the effect of using podcasts in developing the science vocabulary of learners. The result of their study identified that the group of students having access to the podcasts obtained higher vocabulary scores than the group receiving only classroom instruction.

Similarly, in a study done by Hawke (2010), an independent listening pilot course was established based on podcasts to find out how science students can develop their scientific English listening skills through podcasts. Hawke's findings showed that using podcasts, as supplementary materials, help learners pay attention to the podcast content, and encourage them to listen to podcasts both from top-down and bottom-up perspectives.

Kennedy et al.'s (2018) similarly explored the effect of using podcasts on vocabulary instruction of middle school science teachers and their study testified the effectiveness of using podcasts in developing vocabulary knowledge.

Although, the study of related literature, as mentioned above, showed that using 'podcast' and 'corpora' for language teaching and learning has attracted a lot of interests in recent years, the researchers could not find a study investigating the impact of these two variables and their differential effects on vocabulary learning in Iranian EFL contexts. Accordingly, this study aimed to investigate the impact of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian upper-intermediate EFL learners. In order to conduct the study, the following research questions were addressed:

RQ1: Does using audio podcast retelling have a statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners?

RQ2: Does corpus-based vocabulary learning have a statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners?

RQ3: Is there a statistically significant difference between the effects of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian upper-intermediate EFL learners?

According to the research questions, the null hypotheses of the study were formulated:

H01: Using audio podcast retelling does not have any statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners.

H02: Corpus-based vocabulary learning does not have any statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners.

H03: There is no statistically significant difference between the effects of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian upper-intermediate EFL learners.

METHOD

This section provides a description of how this study was conducted in practice. The participants and sampling procedure, the instruments for data gathering, the procedure, the design, and the method of data analysis are elaborated in detail.

Design

The sample of the population was small, and it was not possible to select the participants randomly. In fact, due to the limitations of the study, randomization in choosing the participants was not feasible; hence, the study enjoyed convenience sampling in which the available learners were asked to participate in the study. Another limitation was that the participants were just male learners, and there was a restriction for the researcher in conducting the study on female learners.

‘Using audio podcasts’ and ‘corpus-based vocabulary instruction’ were two independent variables of the study and ‘vocabulary knowledge’ was the dependent variable. Therefore, the study was a quantitative quasi-experimental one, having a comparison group, and pretest-posttest design.

Participants

The participants of the present study were chosen from 100 upper-intermediate male English language learners whose age ranged from 14 to 18 selected from Amir English Language Institute in Tehran. In order to choose the homogenized participants, the Oxford Placement Test (OPT) was administrated, and 60 students whose score fell between one standard deviation below and above the mean were selected. They were divided randomly into three groups, two experimental and one control groups, each group with 20 students. The first experimental group was treated via podcast and was called the podcast group, and the second group was treated via corpus and was called the corpus group.

Instruments

To conduct this study, the following instruments were used:

Oxford Placement Tests (OPT)

In order to check the homogeneity of the participants, the OPT (Version 1, 2001) was used in the current study. It is a flexible test of English language proficiency developed by Oxford University Press and Cambridge ESOL that gives teachers a reliable and time-saving method of finding a student's level of English (Hill & Taylor, 2004). It is quick and easy to administer and is ideal for placement testing and examination screening and takes approximately 60 minutes to administer.

All the questions of the test are in multiple-choice format, answers are recorded directly on the answer sheet, and the answer sheets can be quickly marked using the overlays provided. The test assesses the knowledge of English proficiency, and also is considered as a global measure of ability in English language or other content areas. The test enjoys high reliability ($\alpha=.91$) based on Cronbach's alpha. The test has been also reported to enjoy high construct validity (Nematizadeh, 2011; Wistner, Sakai, & Abe, 2009) (See Appendix A).

Pre- and Posttest

In order to test the learners' vocabulary knowledge before and after the treatment sessions, the researcher developed a 40 items test (See Appendix B). This researcher-made test included four parts, 20 multiple-choice items, 10 fill in the blanks items, and 10 matching definitions items. The sources of the new vocabularies were 10 audio podcasts and the corpus section of LDOCE. The test was validated by two expert university instructors and was piloted with 25 participants who had similar characteristics to the main study participants. The reliability of the test was also calculated to be about 0.8 ($r=0.8$). The posttest was the same as the pretest with some changes in the order of the questions.

Audio Podcasts

One of the experimental groups was treated via audio podcast. In this study, ten audio podcasts were downloaded from www.breakingnewsenglish.com, which is a site that provides different types of podcasts for different levels of learners. Table 1 shows some information about these ten audio podcasts.

Table 1
List of audio podcasts

No	Title	Length (time)	The new vocabularies
1	Web authentication	1:37	secure, security, securely - authentication - replace - consortium - outlived - breaches - drain - vulnerable
2	Paper-books	1:35	unstoppable - bedtime - interact - toddlers - fewer - features
3	Balloons	1:44	scientists - alarming - discovery - seabirds - marine - Antarctic - Deadliest - likelier - ingest, ingestion - fragments - gut - compact - fatal - obstruction - threat - debris - presence - mortality - swallow - look like - squid
4	Equal-pay-day	1:36	reduction - fares - raise - awareness - gap - symbolize - gross - earnings - wholeheartedly - initiative - advertising - vows - wage - stupid - sounds - critic - benefit - discounted - dodgers - fare - caught
5	Boeing max	1:45	aircraft - ground - fleet - airline crash - aviation - experts - circumstances - investigator - disaster - administration - commercially - delivered - disastrous - finances - drop - deploy - safety - enhancement
6	Dog walking	1:39	excuse - downsides - seniors - getting injured - suffering - fractures - attributed - advised - elderly - bone - mineral - density - leashed - merit - hip - complications - independence - blamed - mismatched - strength
7	Kylie Jenner	1:37	billionaire - entrepreneur - self-made - fortune - cosmetics - generates - estimated - annual - worth - got into - launched - influential - reality - celebrity - industry - pat on the back - expect
8	Worldwide Internet	1:38	satellites - affordable - accessible - orbit - launch - coverage - currently - swathes - planet - supposedly - jammers - intelligence
9	Yemen-aid appeal	1:37	appeal - humanitarian - crisis - ravaged - famine - war-torn - malnutrition - starving, starvation - urgent - scale - warehouses - inaccessible - rotting - rebels - horrific - literally - edge - massive - sanitation
10	Karl Lagerfeld	1:40	legendary - companion - inherit - fluffy - feline icon - fortune - admit - former - maid - pampering - diet - luxurious - look after - advertise - do foodstuffs - sophisticated

Corpus Section of Longman Dictionary of Contemporary English

The experimental group, which was treated via corpus-based vocabulary learning, used the corpus section of Longman Dictionary of Contemporary English (LDOCE). The examples of the vocabularies which were taken from the audio podcasts were chosen from the corpus section of this dictionary to be taught (See Table 3.1).

Procedure

In order to conduct this study, 100 English language learners of Amir English Language Institute in Tehran were asked to take part in an Oxford Placement Test (OPT). The researcher administrated the test and the learners were allowed sixty minutes to take the test. Then, 60 homogenized participants whose scores were between one standard deviation above and below the mean were chosen to participate in the study. The selected participants were divided into three groups randomly as one control and two experimental groups. After that, all participants were asked to participate in the pretest while forty minutes were allotted to take the test.

Twenty minutes out of each ninety-minute session were allotted for teaching and practicing the new vocabularies. The podcast group was treated via listening to audio podcasts and the corpus group was treated using the corpus examples of LDOCE. The new and difficult vocabularies of each podcast were extracted to be taught in all three groups.

In the podcast group, the class began with a lead-in, which was related to the theme of each podcast, to activate the learners' background knowledge. Before listening to the podcast, the specified vocabularies of the podcast were written on the board by the instructor. After that, the podcast was played and the learners were asked to take notes. Later, the podcast was played for the second time and the learners were allowed to complete their notes. The participants then were asked to guess the meaning of new vocabularies based on the podcast they had heard. Then the complex parts of each podcast were reviewed through questions and answers by the teacher. This process continued for 10 sessions and the learners in the podcast group just listened to the podcasts for learning vocabulary.

In the corpus group, the specified vocabularies were written on the board and the related corpus example for each word which was extracted from the Longman Dictionary (LDOCE) was reviewed by the teacher. Unknown vocabularies and difficult examples also were clarified through a process of whole class oral question and answer with the teacher. This process continued for ten sessions.

In the control group, the vocabularies were taught via providing definitions and translations. The participants did not use any podcasts or corpus examples. The same as the two experimental groups, the process continued for ten sessions. At the end, the participants were asked to take part in the posttest, which was the same as the pretest, except for some changes in the order of the items and choices.

Data Analysis

To analyses the data obtained from the study first, one-sample Kolmogorov-Smirnov test was employed by the researcher to check the normality of the data obtained in pre- and posttest. In order to test the first and second research hypotheses, the researcher used the independent-samples t-test to find out whether there was a significant development between pre- and posttest of each group in vocabulary knowledge development. The researcher then used one-way ANOVA and Post-Hoc to check the third research hypothesis to discover whether there was a significant difference between the effects of audio podcast retelling vs. corpus-based vocabulary instruction on vocabulary knowledge development of Iranian upper intermediate EFL learners.

FINDINGS

The first analysis includes the result of OPT, for choosing three homogenous groups, the normality test, and the independent-samples t-test, to compare the results of the groups in the posttests.

The Result of OPT Test

First, learners with upper-intermediate level of proficiency took part in an OPT. Table 2 shows the mean and standard deviation of the OPT.

Table 2
The results of OPT

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
OPT	100	31	45	3771	37.71	4.250
Valid N (listwise)	100					

According to the results of the OPT ($M=37.71$ and $Std.=4.25$), sixty students whose score ranged between one standard deviation above and below the mean were selected and divided into three groups of 20, as one control group and two experimental groups. The first experimental group was treated via podcast and was called the podcast group and the second one was treated via corpus and was called the corpus group.

The Reliability of the Vocabulary Test

In order to estimate the reliability of the researcher-made vocabulary test which was used as the pre- and posttest, the researcher used Kuder-Richardson 20 (KR-20). Table 3 shows that the reliability of the vocabulary test was .80. Therefore, the vocabulary test enjoyed a high reliability.

Table 3
Reliability

KR-20	N of Items
.80	40

Normality Test

In order to check the normality of the data, the researchers employed one-sample Kolmogorov-Smirnov test which can show that a variable is not normally distributed if 'Sig.' < 0.05 (Pallant, 2013). Table 4 shows the results of normality test.

Table 4
Tests of normality

Groups		Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Pretest	Podcast Group	.169	20	.139
	Corpus Group	.162	20	.178
	Control Group	.183	20	.080
Posttest	Podcast Group	.183	20	.077
	Corpus Group	.168	20	.140
	Control Group	.162	20	.176

a. Lilliefors Significance Correction

There were totally six groups of data which were gathered by pre- and posttest. As the numbers in Sig. column in the above table shows, the results had a normal distribution ($p=.139, .178, .080, .077, .140, .176$; $p>.05$); therefore, parametric tests such as a paired-samples t-test and an independent-samples t-test could be applied.

Addressing the First Research Question

In order to find out whether there was a significant difference between pre- and posttest of the Podcast Group and the Control Group in vocabulary knowledge development, the researcher performed the independent-samples t-test. The independent-samples t-test is a parametric test which compares the means of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different (Pallant, 2013). Table 5 shows the mean scores of the Podcast Group ($M=7.5$, $Sd.=1.14$) and the Control Group ($M=7.3$, $Sd.=1.13$) in pretest.

Table 5

The mean scores of the podcast group and the control group in pretest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Podcast Group	20	7.5000	1.14708	.25649
	Control Group	20	7.3500	1.13671	.25418

Table 6 indicates that there was not a statistically significant difference between the Podcast Group and the Control Group in pretest ($P>0.05$, $P=.68$). Therefore, the Podcast Group and Control Group were almost at the same level in vocabulary knowledge before the treatment.

Table 6

Independent-samples t-test of the podcast group and the control group in pretest

Levene's Test for Equality of Variances								
t-test for Equality of Means								
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Equal variances assumed	.008	.927	.415	38	.680	.15000	.36110	-.58101 .88101
Equal variances not assumed			.415	37.997	.680	.15000	.36110	-.58101 .88101

The researcher similarly performed the independent-samples t-test to compare the posttest of the Podcast Group and the Control Group. Table 7 shows the mean scores of the Podcast Group ($M=29.70$, $Sd.=1.6$) and the Control Group ($M=26.20$, $Sd.=2.1$).

Table 7

The comparison results of the podcast group and the control group in posttest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Podcast Group	20	29.7000	1.62546	.36346
	Control Group	20	26.2000	2.14231	.47903

Table 8 displays that there was a statistically significant difference between the Podcast Group and the Control Group in the posttest ($t(38)=5.821$, $P<0.05$, $P=.01$).

Table 8

Independent-samples t-test of the podcast group and the control group in posttest

Levene's Test for Equality of Variances									
	t-test for Equality of Means							95% Confidence Interval of the Difference	
	F	Sig. t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference			
	Lower	Upper							
Equal variances assumed	2.121	.153	5.821	38	.000	3.50000	.60131	2.28270	4.71730
Equal variances not assumed			5.821	35.431	.000	3.50000	.60131	2.27980	4.72020

Consequently, the results of the comparison of the Control Group and the Podcast Group in the pre- and posttest rejected the first null hypothesis, and it was confirmed that using audio podcast retelling had a statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners.

Addressing the Second Research Question

In order to determine whether there was a significant difference between pre- and posttests of the Corpus Group and the Control Group in vocabulary knowledge development, the researcher performed the independent-samples t-test. Table 9 displays the mean scores of the Corpus Group ($M=7.8$, $Sd.=1.28$) and the Control Group ($M=7.3$, $Sd.=1.13$) in pretest.

Table 9

The comparison results of the group corpus and the control group in pretest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Corpus Group	20	7.8000	1.28145	.28654
	Control Group	20	7.3500	1.13671	.25418

Table 10 specifies that there was not a statistically significant difference between the Corpus Group and the Control Group in pretest ($P>0.05$, $P=.78$). Therefore, the Corpus Group and the Control Group were at the same level in vocabulary knowledge before the treatment.

Table 10

Independent-samples t-test of the corpus group and the control group in pretest

Independent samples t-test of the corpus group and the control group in pretest									
Levene's Test for Equality of Variances									
	t-test for Equality of Means							95% Confidence	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the Difference	
								Lower	Upper
Equal variances assumed	.078	.781	1.175	38	.247	.45000	.38303	-.32540	1.22540
Equal variances not assumed			1.175	37.467	.247	.45000	.38303	-.32576	1.22576

At that point, the researcher likewise performed the independent-samples t-test to compare the posttest of the Corpus Group and the Control Group. Table 11 demonstrates the mean scores of the Corpus Group ($M=31.8$, $Sd.=1.6$) and the Control Group ($M=26.20$, $Sd.=2.1$).

Table 11

The mean scores of the corpus group and the control group

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Corpus Group	20	31.8000	1.60918	.35982
	Control Group	20	26.2000	2.14231	.47903

Table 12 indicates that there was a statistically significant difference between the Corpus Group and the Control Group in posttest ($t(38) = 9.34$, $P < .05$, $P = .01$).

Table 12

Independent-samples t-test of the corpus group and the control group in posttest

Levene's Test for Equality of Variances								
t-test for Equality of Means								
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Equal variances assumed	1.635	.209	9.347	38	.000	5.60000	.59912	4.38714 6.81286
Equal variances not assumed			9.347	35.263	.000	5.60000	.59912	4.38404 6.81596
	.599124.38404		6.81596					

Thus, the results of the comparison of the Control Group and the Corpus Group in the pre- and posttest rejected the second null, and it was confirmed that corpus-based vocabulary learning had a statistically significant effect on vocabulary knowledge development of Iranian upper-intermediate EFL learners.

Addressing the Third Research Question

In order to conclude whether there was a statistically significant difference between the effects of audio podcast retelling vs. corpus-based vocabulary instruction on vocabulary knowledge development of Iranian upper-intermediate EFL learners, the researcher ran one-way ANOVA and Turkey Post Hoc. The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of two or more independent (unrelated) groups (Pallant, 2013). Table 13 displays that there was a statistically significant difference between the posttests of three group ($P = .001$, $P < .005$).

Table 13

One-way ANOVA of the posttests

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	320.133	2	160.067	48.895	.000
Within Groups	186.600	57	3.274		
Total	506.733	59			

Table 14 indicates the result of the comparison between three groups' posttest. The numbers in column Sig. shows that the mean scores of the three posttests are statistically significantly different ($P < .05$, $P = .01$).

Table 14
Multiple comparisons of posttests

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Podcast Group	Corpus Group	-2.10000*	.57216	.002	-3.4769	-.7231
	Control Group	3.50000*	.57216	.000	2.1231	4.8769
Corpus Group	Podcast Group	2.10000*	.57216	.002	.7231	3.4769
	Control Group	5.60000*	.57216	.000	4.2231	6.9769
Control Group	Podcast Group	-3.50000*	.57216	.000	-4.8769	-2.1231
	Corpus Group	-5.60000*	.57216	.000	-6.9769	-4.2231

*. The mean difference is significant at the 0.05 level.

Table 15 displays that there was a statistically significant difference between groups in posttests. A Tukey post hoc test revealed that the mean score of Corpus Group (M=31.8) was statistically significantly higher than the Podcast Group (M=29.70) and the Control Group (M=26.20).

Table 15
Turkey post hoc results of posttests

Groups	N	Subset for alpha = 0.05		
		1	2	3
Control Group	20	26.2000		
Podcast Group	20	29.7000		
Corpus Group	20	31.8000		
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Hence, the third null hypothesis was rejected, and it was confirmed that there was a statistically significant difference between the effects of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian upper-intermediate EFL learners, and corpus-based vocabulary learning outweighed using audio podcasts.

CONCLUSION, DISCUSSION AND SUGGESTIONS

This study aimed at investigating the impact of audio podcast retelling vs. corpus-based vocabulary learning on vocabulary knowledge development of Iranian upper intermediate EFL learners. In fact, the study contributes to existing literature by concluding that using both corpus and podcasts could enhance vocabulary knowledge development; however, applying corpus-based vocabulary learning outweighed using podcasts.

The results of the present study provided additional evidence with respect to adopting corpus examples, as an authentic source of English language that may promote learners' awareness of different aspects of vocabulary knowledge, such as collocations, meanings, pronunciation etc. ; therefore, help them to be able to learn vocabulary more effectively.

In this regard, the results of the current study are in line with the findings of the studies conducted by Ashkan & Seyyedrezaei, (2016), Gordani (2013), Lee et. al., (2017), Liu and Jiang (2009), Paker and Ergül-Özcan (2017) , Sinha (2021), and Vyatkina & Boulton (2017) which revealed that integrating authentic and rich corpus-based vocabulary activities will bring a lot of benefits to teachers and enables them to teach target words through real contexts and give students opportunities to engage in exploring different uses of the target words (Paker and Ergül-Özcan, 2017). In fact, they believed that teachers can prepare corpus-based vocabulary activities by taking concordance lines from the corpus

and preparing different types of activities like lead-in questions to help the students guess the meaning from the context.

However, the results of the study seem to be in contrast with the results of the study directed by Unaldi, Bardakci, Akpinar, and Dolas (2013). Their experimental study attempted to compare the effectiveness of corpus-informed, contextualized and decontextualized vocabulary instruction in an EFL setting. The participants were 69 high school pre-intermediate language learners in a state school. During the 8-week experimentation process, one of the experimental groups was treated with corpus-informed instruction while the other one studied the same target vocabulary through decontextualized vocabulary activities. The analysis of their obtained data indicated that the group with corpus-informed instruction displayed some progress, albeit statistically insignificant, but the results of the current study showed a significant progress in Corpus Group.

On the other hand, regarding the effectiveness of using podcasts, the study is in line with the studies done by Abdous et. al., (2009)); Gholami and Mohammadi (2015); Hawke (2010); Khanghah and Halili (2015); and Putman and Kingsley (2009), in that all of them confirmed the effectiveness of using podcasts for English language instruction.

However, although the effectiveness of using podcasts was confirmed in this study, it seems that finding suitable podcasts related to the content and objectives of a specific course is really demanding on the part of the teacher; in fact, EFL/ESL teachers need to find series of suitable and related podcasts, which would be a time-consuming process.

This study can be significant for EFL learners who need to know which strategies and techniques can best engage them with effective learning of vocabulary. In addition, the study can be of value for EFL teachers who seek to find more influential techniques to apply for teaching vocabulary in their classes. Furthermore, the results can be useful for administrators of English language institutes who always look for more effective materials to improve the language proficiency level of their language learners. Moreover, the findings can be helpful for material developers who are searching for innovative references to produce fruitful instructional materials for language classes. Finally, this study can be significant for teacher trainers who may introduce these techniques to in-service teachers participating in their training courses.

SUGGESTIONS

This research has thrown up many questions in need of further investigation: First, further research needs to be done to establish whether using audio podcasts and corpus examples have significant effects on vocabulary knowledge of EFL/ESL learners in different contexts and with female learners. Second, further studies can be done to investigate the effects of using podcasts and corpus-based examples on speaking and writing accuracy, fluency, and complexity of EFL learners. Furthermore, future research regarding the use of podcasts and corpus examples could be done to test their effectiveness on correct use of collocations and prepositions in writing and speaking.

Furthermore, in conducting the present study, the researcher encountered the following limitations:

- Randomization in choosing the participants was not feasible; hence, the study enjoyed convenience sampling in which the available learners were asked to participate in the study.
- The participants were just male, and there was a restriction for the researcher in conducting the study on female learners.
- The participants' age ranged from 14 to 18, and the researcher did not have any choice to control their age.

- The course objectives of the participants should be met, and this was not possible for the researcher to spend more than 20 minutes during each session.

Future research also may be done in conditions without the above mentioned limitations.

CONCLUSION

Vocabulary learning has been considered as one of the problematic issues for all language learners in Iranian EFL contexts. Although EFL/ESL teachers try to use different effective strategies in teaching new vocabularies, unfortunately, decontextualized vocabulary teaching is the common approach; therefore, the learners do not acquire vocabulary meaningfully and in authentic context; hence, most language learners are not able to use their knowledge of vocabulary in communication.

In this study, the impact of two techniques, i.e., 'podcast' and 'corpora' on vocabulary learning was examined. The findings revealed the effectiveness of using audio podcasts and corpus examples in vocabulary knowledge development of EFL learners. However, the effect of using corpus examples was shown to be more significant than the impact of using audio podcasts in vocabulary learning. Therefore, EFL/ESL teachers who really want to develop their learners' vocabulary knowledge are recommended to use these strategies, especially corpus-based examples, in their classroom teaching processes.

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