



The Relationship Between Iranian Language Learners' Vocabulary Knowledge and Their Out-Of-Class Exposure to English Reading, Listening, and Audiovisual Materials



Davood Borzabadi Farahani*

(corresponding author)

Assistant professor in English Language Teaching, Faculty of Foreign Languages and Literatures, University of Tehran
 Tehran, Iran

Email: Borzabadi@gmail.com



Masoud Ahrabi Fakhr**

Phd in English Language Teaching, University of Tehran
 Tehran, Iran

Email: Masoud.Ahrabi@gmail.com

ABSTRACT

While plenty of learning occurs outside educational environments, few studies have examined the extent and type of language learners' out-of-class activities. This study intends to investigate the extent to which Iranian EFL learners are exposed to English reading, listening, and audiovisual materials out of the classroom and determine the relationship between this exposure and learners' vocabulary knowledge. To this end, 88 freshman students of English language teaching major were administered a vocabulary knowledge test and a questionnaire. The reliability of both instruments was tested and approved. The results of this study indicated that the learners spent the most time on viewing English audiovisual materials, including movies, TV series, and online videos. Listening and reading were the second and last sources of out-of-class exposure to English. The results of Pearson correlation analysis revealed a positive relationship between viewing and listening to English materials and vocabulary knowledge. Moreover, it was found that using no subtitles and using English subtitles while viewing had a positive correlation with vocabulary knowledge. No significant effect was found for using Persian subtitles or reading. The findings show that the popularity of audiovisual media and their potential for vocabulary learning should be further exploited in EFL programs. It is also suggested that learners be encouraged to engage in extensive viewing.

DOI: 10.22059/jflr.2020.310873.756

© 2020 All rights reserved.

ARTICLE INFO

Article history:

Received:
 28th, September, 2020

Accepted:
 10th, October, 2020

Available online:
 Autumn 2020

Keywords:

*Vocabulary knowledge,
 Out-of-class learning,
 Reading, Listening,
 Viewing, Subtitles*

Borzabadi Farahani, Davood, Ahrabi Fakhr, Masoud (2020). The Relationship Between Iranian Language Learners' Vocabulary Knowledge and Their Out-Of-Class Exposure to English Reading, Listening, and Audiovisual Materials. *Journal of Foreign Language Research*, 10 (3), 484-497.
 DOI: 10.22059/jflr.2020.310873.756

* Davood Borzabadi Farahani is an assistant professor in English Language Teaching at the Faculty of Foreign Languages and Literatures, University of Tehran. His areas of interest are vocabulary learning, teaching methodology, and teacher development.

** Masoud Ahrabi Fakhr has a PhD in English Language Teaching from the University of Tehran. He is interested in multimedia-assisted language learning and incidental vocabulary learning from audiovisual input.

1. Introduction

Abundant evidence suggests that learning merely through educational environments cannot be sufficient for reaching high language proficiency levels. To comprehend authentic English texts, learners need to be familiar with 4000 to 5000 word families to reach 95% lexical coverage (Laufer & Ravenhorst-Kalovski, 2010). For understanding spoken discourse through listening or audiovisual input, the number may be around 3,000 word families for 95% coverage (van Zeeland & Schmitt, 2013; Webb & Rodgers, 2009). Nevertheless, Nation (2006) recommends a lexical resource of 9000 word families for achieving a good level of fluency and comprehension. These large figures indicate that learning all the required vocabulary is unlikely to occur solely inside language classrooms. This is why formal learning should be supplemented by informal learning in everyday settings (Ellis, 2002; Ellis & Wulff, 2014).

In order to better understand informal learning, researchers have looked into the learning opportunities afforded by exposure to the target language. The term used in this context is *incidental language learning*, which occurs through engaging in activities that are not learning-oriented (Hulstijn, 2003). Among English as a foreign language (EFL) learners, who are not in daily contact with English speakers, incidental learning can take place through reading, listening, and viewing audiovisual media. With the expansion of communications and technology, exposure to English is now integrated into many learners' daily activities. These activities may be reading books and websites, listening to music and podcasts, or viewing movies, series, or online

videos, none of which comes with a fixed curriculum or a learning focus. Considering language learners' need for incidental learning and exposure to the target language, researchers have emphasized *extensive reading* as a potential source for vocabulary development (e.g., Grabe & Stoller, 2002; Nation, 2001). However, reading has certain limitations. The typical language learner does not spend sufficient time on reading to frequently encounter the previously seen words to avoid forgetting them (Laufer 2005), and with the expansion of different media, there has been a drop in the time spent on reading (European Commission 2017). Peters' (2018) survey indicated that whereas more than 40% of the 79 Flemish EFL learners in the study claimed to watch subtitled English language TV programs and movies a number of times every week, only one of them reported to engage in reading English books as much. Such evidence might be the reason why Webb (2015) suggests *extensive viewing* as a rich source of authentic language learning input rather than extensive reading. Moreover, researchers have recently discussed the learning potential of viewing movies and TV programs due to their provision of rich language, frequent occurrence of low-frequency words, and visual imagery (Peters, 2019; Rodgers, 2018).

Meanwhile, it seems that there is no clear information regarding the mode and amount of Iranian learners' exposure to English. Furthermore, in spite of the recent claims that suggest learners engage in extensive viewing rather than extensive reading, few studies have examined the vocabulary knowledge of learners who devote more time to viewing English input and compare it with the vocabulary knowledge of learners who devote more time to reading English input. The present study attempts to fill this gap

by examining the extent to which Iranian EFL learners are exposed to English reading, listening, and viewing (and using or not using L1 or L2 subtitles) outside of the classroom. Moreover, to assess the effect of these habits on vocabulary knowledge, this study examines the relationship between language learners' exposure to each of these materials and their vocabulary knowledge. In other words, the purpose of this study is to examine language learners' exposure to different types of English input and to know which learners have the largest vocabulary size.

2. Literature Review

2-1. Theoretical Background

One of the leading champions of extensive reading is Paul Nation. Nation (2015) lists a number of benefits of extensive reading. Nation states that extensive reading provides learners with the opportunity to encounter new words frequently. He believes that repeated encounters with words occur in a variety of contexts, which leads to a richer understanding of those words and in fact provides different contextualized instances of a word for the learner to master it. Nation also states that learners, while reading extensively and benefiting from incidental learning, can also deliberately learn and search for unfamiliar words in a dictionary to significantly increase their chances of learning vocabulary.

However, all the positive points mentioned by Nation can as well be attributed to watching the audiovisual input in the target language, with the difference that this type of input also has imagery, which offers great help in guessing and learning words (Rodgers, 2018). The Dual Coding Theory (Paivio, 1990), the Cognitive Load Hypothesis (Sweller, 2005), and the Cognitive Theory of Multimedia Learning

(Mayer, 2009) all are of the opinion that the best learning takes place through the simultaneous use of ears and eyes. According to Paivio's (1990) theory, Humans have two separate channels for processing visual and auditory data, and Sweller (2005) emphasizes the evolutionary theory and believes that learning happens best when it is in harmony with the cognitive structure of the human brain. Building on these two theories, Mayer (2009) proposes the Cognitive Theory of Multimedia Learning. He argues that humans function best when both auditory and visual channels are simultaneously at work as each of them has its working memory limitations. He concludes that multimedia learning takes precedence over learning from one channel. It should be noted that vocabulary learning through listening skills has also been shown in some empirical studies as discussed below, but previous theoretical discussions have primarily focused on reading and watching.

2-2. Empirical Background

Many intervention studies have examined incidental vocabulary learning through reading and listening (Brown, Waring & Donkaewbua, 2008; Pellicer-Sánchez & Schmitt, 2010; Teng, 2016). For instance, Brown, Waring, and Donkaewbua (2008) examined incidental vocabulary acquisition from different input modes: reading, reading and listening, and listening-only. The researchers employed three graded readers, in which disguised forms were used for twenty-eight target items. Two vocabulary tests measured meaning recognition and meaning recall. The mean scores on the multiple-choice meaning recognition test were 12.54 for reading, 13.31 for reading and listening, and 8.20 for listening-only. The mean scores on the meaning recall test obtained from translation

were 4.10 for reading, 4.39 for reading and listening, and 0.56 listening-only. The results showed that incidental learning can occur from reading and listening, and the combination of both modes results in better performance. Van Zeeland and Schmitt (2013) also investigated how listening input affected incidental vocabulary acquisition. Thirty learners of English as a second language were asked to listen to four listening passages for the purpose of comprehension. Their vocabulary gain was decided by means of three tests, namely a word-form recognition test, a part-of-speech recognition test, and a word-meaning recall test. In the posttest, out of 24 target items, the learners gained 11 words on the word-form recognition measure, 8.10 on the part-of-speech recognition measure, and 2.05 on the word-meaning recall measure. These gains were found to be related to the frequency of occurrence, the concreteness of meaning, and the grammatical functions of the words. Specifically, nouns were found to be the easiest to learn, verbs came next, and adjectives were found to be the most difficult.

Moreover, some research has recently illustrated that incidental vocabulary learning happens through viewing (Ahrabi Fakhr, Borzabadi Farahani, Farahani, in press; Feng & Webb, 2019; Puimège and Peters, 2019). For example, Ahrabi Fakhr et al. (in press) gave a captioned one-hour documentary to learners and examined incidental vocabulary learning by immediate and delayed posttests. They reported that incidental learning and retention can occur at the level of meaning recognition and meaning recall. The results also indicated that in addition to factors such as frequency of occurrence and contextual clues, visual imagery makes a significant contribution to learning; words that

concluded with relevant visual imagery were three times more likely to be learned. In another study, Feng and Webb (2019) compared vocabulary learning through viewing a documentary, reading its transcript, or listening to it, and showed that incidental learning occurs through all modes without any significant difference between them.

Some studies have suggested that learners routinely watch movies and television programs at home, and considered it a good habit for language learning (Lindgren & Muñoz, 2013; Sundqvist & Sylvén, 2014). In one study, Lindgren and Munoz (2013) found that exposure to English outside the classroom was the second predictor of reading comprehension and listening skills after cognate linguistic distance between the first language and the target language. In this study, it was found that especially watching subtitled videos had the highest positive correlation with students' reading and listening skills. This study also found a positive effect for listening to English songs. Playing computer games was another variable examined, but its impact on reading and listening skills was less than the other factors. The effect of playing computer games on language skills, nevertheless, ranked first among children's different modes of exposure to English in a more recent study (De Wilde, Brysbaert, & Eyckmans, 2020). While the positive effects of using social media and speaking were also emphasized, positive but less significant correlations were found for reading and viewing. The findings of this study may indicate greater significance of multimodal and interactive activities among younger ages. In another study, Housen, Janssens, and Pierrard (2001) found that the Flemish learners in the study had a higher score in English than in

French, despite having spent more years of formal instruction in French. Given that there was no difference in teaching methods, the results were explained in light of the participants' greater out-of-class exposure to English.

Few studies have been conducted on vocabulary learning through out-of-class exposure to a language. Two studies have examined the effect that out-of-class reading has on vocabulary learning and reported a positive correlation between them (González-Fernández & Schmitt, 2015; Schmitt & Redwood, 2011). Gonzalez-Fernandez and Schmitt (2015) found a significant relationship between Spanish learners' out-of-class exposure to English reading and their knowledge of collocations. Similarly, Schmitt and Redwood (2011) reported that the amount of reading at home has a positive effect on language learners' knowledge of phrasal verbs.

The few studies that have specifically focused on vocabulary learning through out-of-class exposure to audiovisual materials have also reported positive findings (Kuppens, 2010; Sockett & Kusyk, 2015; Peters, 2018). Kuppens (2010) showed that watching subtitled movies and TV programs have a significant effect on learners' vocabulary learning. Sockett & Kusyk (2015), too, found that regular viewing of TV programs increases learners' knowledge of phrases. In a more recent study, Peters (2018) examined the relationship between vocabulary knowledge of teenage and young Flemish learners and their exposure to English input and found the largest positive correlations with vocabulary knowledge were for using the Internet, viewing TV programs with no subtitles, viewing movies with no subtitles, reading magazines, and reading books. This study also showed that out-of-class exposure explained

more variance (13%) than length of instruction. All in all, reviewing the previous research illustrates that limited studies have examined the relationship between vocabulary knowledge and out-of-class exposure to different modes of English materials, and there are conflicting results among the existing studies. For instance, Peters (2018) found no significant effects viewing subtitled movies and TV programs, playing computer games, or listening to music, which were in contrast to the results of Sockett & Kusyk (2015), De Wilde, et al. (2020), and Lindgren & Muñoz (2013) respectively.

Moreover, previous studies have been conducted on European, and especially Flemish, EFL learners. Considering Lindgren & Muñoz (2013), who found that the most significant predictor of listening and reading comprehension was cognate linguistic distance, and the small linguistic distance between English and other European languages, as Peters (2018) pointed out, more studies are needed to better understand the relationship between out-of-class exposure and vocabulary knowledge. Particularly, there is no information available on this matter regarding Iranian EFL learners. Therefore, this study intends to address this gap.

3. Method

3-1. Participants

This study was conducted with 88 participants, all of whom were freshman undergraduate students at Farhangian University. All participants were English majors. Initially, 94 students participated in the study, but six students were excluded from the data analysis because their first language was not Persian. Also, before the main study, 30 students with similar characteristics to the participants of the study

were placed in a pilot group to help test the questionnaire and the vocabulary knowledge test.

3-2. Instruments

3-2-1. Vocabulary Levels Test

Participants' vocabulary knowledge was measured by a frequency-based (COCA/Davies, 2008) test called the updated Vocabulary Levels Test. The test is developed by Webb, Sasao, & Balance (2017) and employs Nation's (2012) British National Corpus/Corpus of Contemporary American English word lists as its source of items to ensure that the frequency levels of the items better reflect today's English. The items in the

test are taken from five frequency bands from recent and extensive corpora. The test consists of 150 items and provides an estimate of learners' vocabulary by differentiating between the first five frequency levels. It employs a matching format in which the test-takers are presented with 30 questions representing a 1000-word frequency level. The items are vocabulary definitions clustered in groups of three. There are six words for each group, three of which should be matched with their definitions. Test takers' task is to match words with their definitions by ticking the correct box. An example of three test items from the first frequency level can be seen in Figure 1.

Figure 1. Example of items in the Updated Vocabulary Levels Test

	game	island	mouth	movie	song	yard
land with water all around it						
part of your body used for eating and talking						
piece of music						

Through Rasch reliability and separation estimates, the test has shown reliability estimates of .96 and separation estimates of 4.72 and above (Webb, Sasao, & Ballance, 2017). In this study, too, the internal consistency of the test was measured and a good Cronbach's alpha of .94 was obtained. Moreover, the test exhibited an implicational scale, meaning that scores related to lower-frequency vocabulary items were lower than scores related to high-frequency vocabulary items.

3-2-2. Questionnaire

A questionnaire with six main questions was prepared to assess students' out-of-class exposure to English (see Appendix). In addition to a question about the native language, the questionnaire asked the participants to state how many hours a week they were exposed to English input outside the university. More specifically,

the questions were about how often they read English texts such as books, magazines, and websites, how often they listened to English materials such as songs, podcasts, and audio files, and how often they watched English audiovisual materials such as movies, series, and online videos, as well as to what extent they used Persian or English subtitles. Since the questions were related to learners' memory of their weekly activities and not underlying traits, test-retest was used to measure the reliability of the questionnaire. The questionnaire was administered to the pilot group twice with an interval of two weeks. Cronbach's alpha of the items ranged from 0.78 to 0.86, indicating that their reliability levels were above the acceptable value. The participants first answered the Vocabulary Levels Test and then answered the questionnaire.

3-3. Data Analysis

Descriptive statistics were used to assess the performance of language learners in the vocabulary knowledge test and their answers to the questionnaire. Pearson correlation was used to assess the relationship between learners' vocabulary knowledge and their exposure to English reading, listening, and audiovisual input. Moreover, the relationship between learners' vocabulary knowledge and their habits in viewing English audiovisual input without subtitles, with English subtitles, and with Persian subtitles was examined through Pearson correlation.

4. Results

4-1. Vocabulary Knowledge

Results of the Updated Vocabulary Levels test (see Table 1) indicated that the participants had mean scores that showed their mastery of the most frequent 1000 (mean > 29) and 2000 (mean > 26) words and a good knowledge of the most frequent 3000 words (mean > 21). The average mean score, which was in fact the score of learners' vocabulary knowledge from the most frequent 5000 words, was 112 out of 150.

Table 1. Means, standard deviations, and 95% confidence intervals for vocabulary knowledge scores

	N	Mean	Std. Deviation	95% Confidence Interval	
				Lower	Upper
L1	88	29.69	.849	29.52	29.83
L2	88	26.35	3.252	25.73	26.93
L3	88	21.60	4.808	20.64	22.47
L4	88	19.50	5.460	18.37	20.49
L5	88	15.18	6.648	13.85	16.41
Vocab Knowledge	88	112.25	18.302	108.58	115.58
Valid N (listwise)	88				

4-2. Amount and Mode of Out-of-Class Exposure to English Materials

The questionnaire elicited the participants' weekly exposure habits to English materials. The participants reported having an average weekly viewing of 7.8 hours, which was longer than their 5.4 hours of listening and 3.2 hours of reading. Therefore, it was revealed that the participants' largest amount of exposure to English was through viewing (see Table 2). Regarding participants' viewing habits, using subtitles in general, whether L1 or L2, was more popular compared with using no subtitles. That is, the average reported time of viewing with subtitles was 4.9 hours every week, while the average reported time for viewing without any subtitles was 3 hours every week. Even when viewing with subtitles was considered separately in terms of using L1 or L2 subtitles, viewing with L2 subtitles ranked first. The participants opted for viewing English audiovisual materials with captions (i.e., L2 subtitles) with an average of 3 hours or without subtitles with a little less than 3 hours, compared with using L1 subtitles (2 hours) (see Table 3).

Table 2. Weekly exposure to English reading, listening, or audiovisual materials

	N	Mean (Hours)	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
Reading	88	3.1932	3.04037	1.609	.257	2.586	.508
Listening	88	5.4091	9.30688	6.242	.257	48.122	.508
Watching	88	7.8239	6.21642	1.008	.257	.120	.508
Valid N (listwise)	88						

Table 3. Weekly viewing with or without Persian or English subtitles

	N	Mean (Hours)	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
WWOS	88	2.9602	3.75716	1.549	.257	1.660	.508
WWS	88	4.9318	4.24209	1.257	.257	1.200	.508
WWPS	88	1.9545	2.77057	2.188	.257	5.421	.508
WWES	88	2.9773	2.92031	1.534	.257	2.471	.508
Valid N (listwise)	88						

Note. WWOS= Watching Without Subtitles; WWS= Watching with Subtitles; WWPS= Watching with Persian Subtitles; WWES= Watching with English Subtitles

4-3. Relationship Between Vocabulary Knowledge and Mode and Extent of Out-of-Class Exposure to English Materials

A Pearson correlation was performed between learners' vocabulary knowledge and their amount of exposure to English reading materials, English listening materials, and English audiovisual materials. Results indicated that both weekly listening to or viewing English input had a significant positive correlation coefficient of .22 ($p < .05$) with learners' vocabulary knowledge, while reading did not. Moreover, positive relationships were found for listening and viewing with a correlation coefficient of .42 ($p < .01$), and viewing and reading with a correlation coefficient of .42 ($p < .01$). The results are illustrated in Table 4.

Table 4. Relationship between vocabulary knowledge and amount of exposure to English reading, listening, and audiovisual materials

		Vocab Knowledge	Reading	Listening	Watching
Vocab Knowledge	Pearson Correlation	1	.185	.220*	.219*
	Sig. (2-tailed)		.085	.039	.040
	N	88	88	88	88
Reading	Pearson Correlation	.185	1	.201	.426**
	Sig. (2-tailed)	.085		.060	.000
	N	88	88	88	88
Listening	Pearson Correlation	.220*	.201	1	.425**
	Sig. (2-tailed)	.039	.060		.000
	N	88	88	88	88
Watching	Pearson Correlation	.219*	.426**	.425**	1
	Sig. (2-tailed)	.040	.000	.000	
	N	88	88	88	88

It was also interesting to examine the relationship between learners' general vocabulary knowledge and the type of subtitling they used for viewing English audiovisual materials. It was found that there was a significant correlation between vocabulary knowledge and watching audiovisual materials without subtitles, with a correlation coefficient of .31 ($p < 0.01$). It meant that learners who used

no subtitles generally had larger vocabulary sizes. Moreover, a positive correlation was found between vocabulary knowledge and watching audiovisual media with English subtitles, and its correlation coefficient was .22 ($p < 0.05$). Although the other correlation was not statistically significant, it was interesting that watching with Persian subtitles had a negative correlation with vocabulary size (see Table 5).

Table 5. Relationship between vocabulary knowledge and amount of viewing with or without Persian or English subtitles

		PVK	WWOS	WWS	WWPS	WWES
PVK	Pearson Correlation	1	.312**	.048	-.161	.222*
	Sig. (2-tailed)		.003	.659	.135	.038
	N	88	88	88	88	88
WWOS	Pearson Correlation	.312**	1	.205	-.002	.300**
	Sig. (2-tailed)	.003		.056	.982	.005
	N	88	88	88	88	88
WWS	Pearson Correlation	.048	.205	1	.729**	.761**
	Sig. (2-tailed)	.659	.056		.000	.000
	N	88	88	88	88	88
WWPS	Pearson Correlation	-.161	-.002	.729**	1	.111
	Sig. (2-tailed)	.135	.982	.000		.305
	N	88	88	88	88	88
WWES	Pearson Correlation	.222*	.300**	.761**	.111	1
	Sig. (2-tailed)	.038	.005	.000	.305	
	N	88	88	88	88	88

Note. WWOS= Watching Without Subtitles; WWS= Watching with Subtitles; WWPS= Watching with Persian Subtitles; WWES= Watching with English Subtitles

5. Discussions and Conclusion

This study employed a questionnaire to examine the extent to which Iranian EFL learners were exposed to English reading, listening, and audiovisual materials and used English or Persian subtitles while viewing. It also used the Updated Vocabulary Levels Test to measure participants' vocabulary knowledge and evaluate its relationship with the amount of exposure to different English materials. The findings showed that vocabulary knowledge was positively correlated with viewing and listening to English input, while the relationship between reading English texts and vocabulary knowledge was not found to be significant. Furthermore, the positive relationships between different modes of exposure to English materials indicated that some learners generally devote more time than others to reading, listening, or viewing English materials.

The results of this study lend support to the helpful effect of viewing TV and movies on vocabulary knowledge as revealed in previous studies (De Wilde, et al., 2020, Kuppens, 2010; Sockett & Kusyk, 2015; Peters, 2018), and provide evidence for Webb's (2015) claim that extensive viewing has the potential to lead to considerable vocabulary gains. The previous intervention studies have also shown that incidental vocabulary learning can occur even by viewing one episode of a TV program (Ahrabi Fakhr, Borzabadi Farahani, Farahani, in press; Feng & Webb, 2019; Puimège and Peters, 2019). Consequently, the positive relationship found between viewing audiovisual materials and vocabulary knowledge was in line with expectations.

Moreover, the positive correlations found between listening and vocabulary knowledge is in line with previous intervention studies that indicated the possibility of incidental vocabulary learning through listening (Brown, Waring & Donkaewbua, 2008; van Zeeland and Schmitt, 2013). Furthermore, Lindgren & Muñoz (2013) showed a positive relationship between learners' out-of-class exposure to listening materials and their listening and reading comprehension. Nevertheless, the results are in contrast with Peters' (2018) and González-Fernández and Schmitt's (2015) findings that the effect of listening to songs on vocabulary knowledge was negligible. This difference can be explained by the fact that the mentioned studies only examined listening to songs, while this study considered all listening activities, including listening to podcasts and other listening sources. Kargozari & Zarinkamar (2014) have previously shown that listening to podcasts leads to vocabulary development.

What was surprising was that no significant correlation was found between reading and vocabulary knowledge, which is contrary to previous results in the literature (González-Fernández & Schmitt, 2015; Pellicer-Sánchez & Schmitt, 2010; Peters, 2018; Schmitt & Redwood, 2011); Nevertheless, it should be accentuated that just a few participants in this study reported reading books and other passages regularly. Moreover, Laufer and Ravenhorst-Kalovski (2010) have pointed out that for understanding 95% of vocabulary in English texts, which facilitates comprehension and incidental learning of the remaining words, knowledge of 4000 to 5000 words families is required. The participants of this study showed that they had a good familiarity with the frequency levels up to 3000 word families, but not so with the 4000 and 5000 levels. It is shown that the comprehension of spoken discourse in listening or viewing forms requires knowledge of around 3000 word families (van Zeeland & Schmitt, 2013; Webb & Rodgers, 2009). Therefore, these facts may justify the positive effects found for listening and viewing but not reading in the present study.

Among different subtitling types, it was found that learners who watched audiovisual media without subtitles had the largest vocabulary resources, followed by those who watched audiovisual media with captions, but no significant effect was found for using Persian subtitles. The results regarding using no subtitles supported Peters's (2018) findings. Peters (2018) reports a positive correlation between vocabulary knowledge and viewing movies and TV programs without subtitles, but not for those with subtitles. Similar to Peters' (2018) findings, our results did not show a significant relationship between

viewing audiovisual media with subtitles in general (whether L1 or L2) and vocabulary knowledge. It is noteworthy that, while not statistically significant, using Persian subtitles had a negative correlation with vocabulary knowledge. Maybe if Peters (2018) had distinguished between using L1 and L2 subtitles, she could as well see a significant positive effect for using L2 subtitles. We cannot conclude, however, that watching with L1 subtitles does not positively affect vocabulary learning, as it might be the case that L1 subtitles are generally used by less proficient learners since they cannot understand movies and series without subtitles or with English subtitles. Our results might also just be indicative that learners with higher vocabulary proficiencies are more likely to watch and understand English media without subtitles, which is an unacknowledged limitation in previous studies.

The results of our questionnaire, in accord with those of previous research on Flemish EFL learners (Peters, 2018; Puimège & Peters, 2019), suggest that Iranian EFL learners, too, watch audiovisual media extensively out of the classroom followed by listening, and that they do these activities more than reading. This preference of today's language learners is in fact supported by the Cognitive Theory of Multimedia Learning (Mayer, 2009), which stresses learning from simultaneous use of auditory and visual channels. The results regarding the positive correlation between vocabulary knowledge and viewing audiovisual materials indicate that there is potential in learners' inclination to engage with audiovisual media and that viewing can indeed be "an effective method of learning vocabulary" (Webb & Rodgers, 2009a, p. 356). The results of the correlations between learners' general

knowledge and their amount of exposure to English audiovisual input also indicate that EFL learners who engage in extensive viewing have a comparatively larger vocabulary size and that this habit may increase their vocabulary knowledge. Thus, while traditionally many programs have been designed to promote vocabulary learning through extensive reading (Feng & Webb, 2019), our findings imply that the popularity of audiovisual media and their potential for vocabulary learning should be further exploited in EFL programs. Teachers should also place more emphasis on exposure to English input outside the classroom, and in addition to following the recommendations of previous research on stimulating language learners to read

different texts (e.g. Kaivanpanah & Parvin, 2019), encourage and guide learners' desire to watch and listen to English input as well. These types of activities can be especially helpful for learners who live in a society where English is not used in social communications.

Finally, it should be noted that the population of this study was only composed of freshman undergraduate English majors, so the results cannot be generalized to all language learners. In addition, as in previous studies, the data were only relevant to the participants' current exposure to English input, while future research could also consider participants' history of exposure to English input to better understand the variables that have shaped their current knowledge.

References

Ahrabi Fakhri, M., Borzabadi Farahani, D., Farahani, A. K. (in press). Incidental Vocabulary Learning and Retention from Audiovisual Input and Factors Affecting Them. *English Teaching & Learning*. DOI: 10.1007/s42321-020-00066-y

Brown, R., Waring, R., & Donkaewbua, S. (2008). Incidental vocabulary acquisition from reading, reading-while-listening, and listening to stories. *Reading in a Foreign Language*, 20(2), 136–163.

COCA/Davies, M. (2008). The Corpus of Contemporary American English: 450 million words, 1990-present.

De Wilde, V., Brysbaert, M., & Eyckmans, J. (2020). Learning English through out-of-school exposure. Which levels of language proficiency are attained and which types of

input are important? *Bilingualism: Language and Cognition*, 23(1), 171-185.

Ellis, N. C. (2002). Frequency effects in language processing: A review with implications for theories of implicit and explicit language acquisition. *Studies in second language acquisition*, 24(2), 143-188.

Ellis, N. C., & Wulff, S. (2014). Usage-based approaches to SLA1. *Theories in second language acquisition: An introduction*, 1, 75.

European Commission. (2017). Media use in the European Union. European Union, Standard Eurobarometer 88 Project. DOI: 10.2775/116707

Feng, Y., & Webb, S. (2019). Learning vocabulary through reading, listening, and viewing: Which mode of input is most effective?. *Studies in Second Language Acquisition*, 1-25.

- González-Fernández, B., & Schmitt, N. (2015). How much collocation knowledge do L2 learners have?: The effects of frequency and amount of exposure. *ITL-international journal of applied linguistics*, 166(1), 94-126.
- Grabe, W., & Stoller, F. (2002). *Teaching and researching reading*. Harlow, UK: Longman.
- Housen, A., Janssens, S., & Pierrard, M. (2001). *Frans en Engels als vreemde talen in Vlaamse scholen* (Vol. 4). VUB Press.
- Hulstijn, J. H. (2003). Incidental and intentional learning. In Doughty C.J., & Long, M. (Eds.) *Handbook of Second Language Acquisition* (pp. 349-81). Malden, MA: Wiley- Blackwell.
- Kaivanpanah, S., & Parvin, M. (2019). The Contribution of Breadth and Depth of Vocabulary Knowledge to EFL Learners' Summary Writing Success. *Foreign Language Research Journal*, 9(2), 423-444
- Kargozari, H. R., & Zarinkamar, N. (2014). Lexical development through podcasts. *Procedia-Social and Behavioral Sciences*, 98, 839-843.
- Kuppens, A. H. (2010). Incidental foreign language acquisition from media exposure. *Learning, Media and Technology*, 35(1), 65–85. <https://doi.org/10.1080/17439880903561876>
- Laufer, B. (2005). Focus on form in second language vocabulary learning. *Eurosla yearbook*, 5(1), 223-250.
- Laufer, B., & Ravenhorst-Kalovski, G. C. (2010). Lexical Threshold Revisited: Lexical Text Coverage, Learners' Vocabulary Size and Reading Comprehension. *Reading in a foreign language*, 22(1), 15-30.
- Lindgren, E., & Muñoz, C. (2013). The influence of exposure, parents, and linguistic distance on young European learners' foreign language comprehension. *International Journal of Multilingualism*, 10(1), 105-129.
- Mayer, R.E. (2009). *Multimedia Learning*. Cambridge University Press, Cambridge.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. (2006). How large a vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63(1), 59–82. <https://doi.org/10.1353/cml.2006.0049>
- Nation, I. S. P. (2012). *The BNC/COCA word family lists*. Retrieved from <http://www.victoria.ac.nz/lals/about/staff/paul-nation>
- Nation, P. (2015). Principles guiding vocabulary learning through extensive reading. *Reading in a Foreign Language*, 27(1), 136–145.
- Paivio, A. (1990). *Mental representations: A dual coding approach*. New York: Oxford University Press.
- Pellicer-Sánchez, A., & Schmitt, N. (2010). Incidental vocabulary acquisition from an authentic novel: do Things Fall Apart? *Reading in a Foreign Language*, 22(1), 31–55
- Peters, E. (2018). The effect of out-of-class exposure to English language media on learners' vocabulary knowledge. *ITL-International Journal of Applied Linguistics*, 169(1).

- Peters, E. (2019). The effect of imagery and on-screen text on foreign language vocabulary learning from audiovisual input. *TESOL Quarterly*, 53(4), 1008-1032.
- Puimège, E., & Peters, E. (2019). Learning L2 vocabulary from audiovisual input: An exploratory study into incidental learning of single words and formulaic sequences. *The Language Learning Journal*, 47, 424-438. <https://doi.org/10.1080/09571736.2019.1638630>
- Rodgers, M. P. H. (2018). The images in television programs and the potential for learning unknown words: the relationship between on-screen imagery and vocabulary. *ITL-International Journal of Applied Linguistics*, 169(1). Advance online publication. <http://doi.org/10.5054/tq.2011.268062>
- Schmitt, N., & Redwood, S. (2011). Learner knowledge of phrasal verbs: A corpus-informed study. *A taste for corpora: In honour of Sylviane Granger*, 173-209.
- Sockett, G., & Kusyk, M. (2015). Online informal learning of English: Frequency effects in the uptake of chunks of language from participation in web-based activities. *Usage-based perspectives on second language learning*, 153-177.
- Sundqvist, P., & Sylvén, L. K. (2014). Language-related computer use: Focus on young L2 English learners in Sweden. *ReCALL*, 26(1), 3-20. <https://doi.org/10.1017/S0958344013000232>
- Sweller, J. (2005). Implications of cognitive load theory for multimedia learning. In R. E. Mayer (Ed.), *The Cambridge handbook of multimedia learning* (pp.19-30). Cambridge: Cambridge University Press.
- Teng, F. (2016). The effects of context and word exposure frequency on incidental vocabulary acquisition and retention through reading. *The Language Learning Journal*, 47(2), 145-158.
- van Zeeland, H., & Schmitt, N. (2013). Incidental vocabulary acquisition through L2 listening: A dimensions approach. *System*, 41(3), 609-624. doi:10.1016/j.system.2013.07.012
- Webb, S. (2015). Extensive viewing. Language learning through watching television. In D. Nunan & J.C. Richards (Eds.), *Language learning beyond the classroom* (pp. 159-168). New York: Routledge.
- Webb, S., & Rodgers, M. P. (2009). Vocabulary demands of television programs. *Language Learning*, 59(2), 335-366.
- Webb, S., Sasao, Y., & Ballance, O. (2017). The updated Vocabulary Levels Test: Developing and validating two new forms of the VLT. *ITL-International Journal of Applied Linguistics*, 168(1), 33-69.
- Weigle, S. C. (2007). Teaching writing teachers about assessment. *Journal of Second Language Writing*, 16(3), 194-209.
- White, E. (2009). Are you assessment literate? Some fundamental questions regarding effective classroom-based assessment. *On CUE journal*, 3(1), 3-25.
- Xu, Y., & Brown, G. (2016). Teacher assessment literacy in practice: A reconceptualization. *Teaching and Teacher Education*, 58, 149-162.

Appendices

Exposure to English Materials Questionnaire

Name:

Age:

What is your first language?

What languages) do you speak at home?

On a weekly basis outside the university, how often do you...

read books, magazines, websites, etc. written in English	hours
listen to audio in English (songs, podcasts, listening files, etc.)	hours
view audio-visual materials in English (movies, series, online videos, etc.)	hours

On a weekly basis, how often do you watch audio-visual materials in English ...

without subtitles?	hours
with Persian subtitles?	hours
with English subtitles?	hours