

February 2018 – Volume 21, Number 4

The Role of Receptive Vocabulary Knowledge in Advanced EFL Listening Comprehension

Ufuk Ataş

Middle East Technical University, Ankara, Turkey

<atasufuk@gmail.com>

<atas@metu.edu.tr>

Abstract

This paper presents an empirical study that investigates the role of vocabulary knowledge in listening comprehension with 33 advanced Turkish learners of English as a foreign language. The Vocabulary Levels Test (Schmitt, Schmitt & Clapham, 2001) is used to measure the vocabulary knowledge of the participants and a standardized listening test (Cambridge Certificate of Proficiency in English) is used to measure the listening comprehension level. The results show that vocabulary knowledge produces a significant correlation with listening comprehension. The 5000-word frequency is found to be the best predictor of the variance in the listening comprehension both of which have valuable implications for listening comprehension in EFL contexts.

Keywords: Receptive vocabulary, Advanced listening, EFL learners

Introduction

The role vocabulary plays in second language acquisition and foreign language teaching is highly valued. It is one element that links the four skills of speaking, listening, reading and writing. In order to communicate well in a foreign language, learners should acquire an adequate number of words and should know how to use them in different contexts as well as for different purposes. Yet, studies in this area have focused primarily on the link between reading comprehension and vocabulary acquisition. Though there is a considerable number of studies suggesting that vocabulary knowledge is an important determinant of success in reading comprehension in second or foreign language education (e.g., Hu & Nation, 2000; Paribakht & Wesche, 1999; Shen, 2008; Pigada & Schmitt, 2006; Rott, 1999), not many studies focus on the importance of vocabulary knowledge in listening comprehension (e.g., Bonk, 2000; Stæhr, 2009).

It is generally acknowledged that understanding an aural text requires the listeners to use two major sources; linguistic and non-linguistic (Stæhr, 2009). Similarly, there is “a complex

interplay between top-down and bottom-up processes in the listening modality, an interaction of sensory input and past knowledge” (Bonk, 2000, p. 14). No matter through which method (top-down or bottom-up) the listener constructs meaning in listening comprehension, lexical competence plays an important role in these processes.

Buck (2001) mentions five main types of knowledge used in understanding spoken language; *the input to the listener, applying knowledge of the language, using world knowledge, the context of communication, and building mental representations of meaning*. These types of knowledge require varying degrees of vocabulary knowledge, although such knowledge will be dependent on factors such as the purpose of listening, language proficiency, and the context of the listening activity. Therefore, the motivation for this study emerges from the need for building on the premise by Stæhr (2009) that there is “a need to explore the extent to which different dimensions of learners’ vocabulary knowledge will contribute to L2 learner’s listening success” (p. 578).

On Vocabulary Knowledge

The scope of vocabulary knowledge is so broad that reaching an ultimate understanding of what a word is may sometimes be rather difficult. As Read (2000) puts it, there are some points to be considered in understanding the nature of vocabulary knowledge, such as; what a word is, whether vocabulary consists of only single words or larger lexical items, what it means to know a word or an item, and what the nature of the construct is to measure vocabulary. In its broadest sense, Cameron (2001) argues that knowing about a word involves knowing about its *form* (how it sounds and how it is spelled, the grammatical changes that can be made to it); its *meaning* (conceptual content and its relation to other words and concepts); and its *use* (patterns of occurrence with other words). Similarly, Hatch and Brown (1995) describe five essential steps in vocabulary learning based on research about learner strategies; having adequate sources to encounter new words, getting a clear image of the new form, learning the meaning, making a memory connection between form and meaning and finally, using the words. Furthermore, Read (2000) believes that the number of words recognized and understood is rather greater than the number of words used either in speech or writing. Therefore, he emphasizes the distinction between *receptive* and *productive* vocabulary. Harmer (1991) defines receptive vocabulary as words which the students will recognise when they see them, but not necessarily be able to produce. This distinction between receptive and productive vocabulary is important since vocabulary knowledge is defined as receptive knowledge of the words in this study.

Another important aspect of vocabulary concerns the way it is taught. Meara (1996) mentions the problems in teaching vocabulary stating that “our ideas about how to teach vocabulary, and how to develop lexical competence in foreign language learners, are based on rocky assumptions” (p. 2). She emphasised the fact that there was not, at the time, a sound theory of the factors contributing to lexical competence; thus, arguing that a theory was obviously needed to be able to make sensible suggestions for teaching vocabulary in a foreign language. In the same sense, Sökmen (1997) pointed out that “our perspective on teaching vocabulary was greatly influenced by the top-down, naturalistic, and communicative approaches of the 1970s and 1980s; and the emphasis was implicit, incidental learning of vocabulary” (p. 237). These ideas led to many different techniques and approaches to teaching vocabulary (the discussion of which is beyond the scope of this paper).

The approaches and techniques to teaching vocabulary determine the place of vocabulary in language assessment. As Read (2000) argues, even advanced learners are aware of the limitations in their knowledge of words in learning a second language. They might experience lexical gaps or concepts that they cannot express in the same way they would do in their first language. Therefore, measuring learners' knowledge of words is of great importance. For this purpose, some researchers emphasize the importance of designing and developing tests to measure vocabulary knowledge specifically (Nation, 1983, 1990, 2001; Schmitt, Schmitt & Clampham, 2001). From an assessment perspective, the fundamental question to be asked is whether the particular words included in a vocabulary test are interesting in their own right (Stæhr, 2009) or whether they are actually measuring learners' vocabulary knowledge. Meara (1996) believes that one can only develop models of lexical competence if they have a complete model of semantics and a complete specification of the syntactic and associational behavior of the words the speakers have in their lexicon. The present study is making use of a Vocabulary Levels Test which meets the above criteria.

On Listening Comprehension

Aural comprehension establishes a base for the development of oral language within the *speech chain* of listening and speaking (Denes & Pinson, 1993, as cited in Morley, 2001). Morley (2001) stresses the importance of listening comprehension with the claim that "listening comprehension lessons are a vehicle for teaching elements of grammatical structure and allow new vocabulary items to be contextualized within a body of communicative discourse" (p. 70). Listening comprehension is also seen as the primary channel for language input and acquisition (Peterson, 2001) providing the learners with both linguistic and non-linguistic sources. Thus, helping them construct meaning through these sources to identify the phonological, lexical, syntactic, semantic and pragmatic knowledge as well as the knowledge of the content, topic or general knowledge of the world (Rost, 2002). On the other hand, as Rost (2002) states, word segmentation and recognition form the basis of spoken language comprehension which implies that if the learners are not able to recognize a certain number of words in the input, they will fail to construct meaningful representations of any text. As a result, they might be deprived of any access to relevant contextual information.

However, as Stæhr (2009) states, "knowledge of a word is no guarantee that the word will actually be recognized in continuous speech. Moreover, recognizing most of the words in the input, does not guarantee comprehension, as many other factors also affect L2 comprehension" (p. 581). These additional factors are *first language listening ability* (Vandergrift, 2006), *text type* (Shohamy & Inbar, 1991), *background knowledge* and *topic familiarity* (Schmidt-Rinehardt, 1994) and *purpose of listening*. Therefore, it is important to note the following points; research on listening comprehension shows that any listening comprehension test should cover a wide range of topics and text types; the background knowledge of the learners is to be considered while preparing a listening text and, thereby, the listening construct needs to be defined well.

Mecartty (2000), in his study on the role of lexical items on comprehension, suggests that both lexical and grammatical knowledge are significantly correlated to both reading and listening comprehension, though in different strengths. Though he presents lexical knowledge appearing to be more crucial for reading than it is for listening comprehension, he concludes that the factors

related to listening comprehension are complex ones and that “in an L2 context, one can see the surmounting difficulties in isolating variables specific to L2 listening and of researching them” (Mecartty, 2000, p. 338). Yet, Stæhr’s (2009) study about the role of lexical knowledge on L2 listening comprehension suggests that vocabulary knowledge is important for successful listening comprehension in EFL contexts. In a study with 115 Danish EFL learners, Stæhr (2009) investigated whether the dimensions of depth and breadth of vocabulary knowledge plays a role in listening comprehension. Even though the study does not seem to support the hypothesis that depth of vocabulary knowledge (as measured by a Word Associates Test) plays a separate role in listening, he presents a strong correlation between vocabulary knowledge and listening comprehension in an EFL context and concludes that receptive vocabulary knowledge is almost as important for listening as it is for reading. Teng (2016) also found that vocabulary knowledge is highly correlated with academic listening comprehension, stating that vocabulary size and lexical coverage needed for listening comprehension have a tendency to vary in accordance with the type of spoken texts used.

A similar approach is used by Bonk (2000) to identify the interaction between lexical knowledge and listening comprehension in a second language with 59 Japanese university students of English. Though he reports a statistically significant positive correlation between lexical recognition and comprehension ratings of the learners, he concludes that most learners seem to need very high lexical familiarity with comprehension. This brings the issue of the need to test any correlation between proficiency in lexical knowledge and listening comprehension as well as other factors that might play a role in such correlations.

In line with the above-mentioned background about vocabulary knowledge and listening comprehension, this study aims to build on previous research by investigating the role of receptive vocabulary knowledge in listening comprehension. More specifically, this study aims to provide empirical evidence as to whether different levels of receptive vocabulary knowledge of advanced L2 learners of English have any effect on the listening comprehension of these learners.

In order to test this, learners were given two tests; a Vocabulary Levels Test (Schmitt, Schmitt & Clapham, 2001) that tested learners’ receptive vocabulary knowledge in five different levels and an advanced listening comprehension test, namely, the Cambridge Certificate of Proficiency in English (CPE). These tests are discussed in detail in the following sections of the paper.

Research Questions

This study tries to answer the following research questions:

1. Does receptive vocabulary knowledge have any effect on advanced listening comprehension in L2?
2. If yes, to what extent is receptive vocabulary knowledge associated with advanced listening comprehension in L2?

The methodological framework of this study is inspired by Stæhr (2009) who presents an empirical study that investigates the role of vocabulary knowledge in listening comprehension

with 115 advanced Danish EFL learners. The instruments used in this study are the same as those used in Stæhr's (2009) study with the exclusion of Depth of Vocabulary Levels Test.

Participants and Context

The study included 33 Turkish EFL learners studying in the Department of Basic English at a state university offering English-medium instruction. They were in the first year of their university education at the preparatory school before they continued their studies as freshman students in different departments (ranging from engineering to business administration). Their ages ranged from 19-22. The participants were selected using convenience sampling. Their level of language proficiency was advanced according to a placement test. Tests for validity and reliability of this exam are frequently done by the university (Cronbach's alpha reliability coefficient: .85 in the year that the students took the exam to be placed in different levels).

The university where this study was carried out is a state university offering English-medium instruction in all its departments. The Department of Basic English provides the students with English language education, with a two-semester intensive program placing emphasis on reading, writing, listening and speaking. Its primary goal is to enable students to follow their departmental courses without major difficulty, once they finish the intensive program and start coursework in their departments. Students were placed in five groups according to their English level and had 15 to 30 class hours per week throughout the academic year. To be freshmen, they are required to not only reach a certain level of yearly achievement but also to be successful in the English Proficiency Exam at the end of the year.

Data Collection Instruments and Procedure

Two tests were used in this study; a Vocabulary Levels Test (Schmitt, Schmitt & Clapham, 2001) and a Listening Comprehension Test (Cambridge CPE). The tests were administered on the same day, in a two-class hour period. The total time for administering the Listening test was 45 minutes including the time for giving instructions and answering questions. After a short break, the participants were given the Vocabulary Levels Test, the administration of which took between 20-25 minutes.

Vocabulary Levels Test

The Vocabulary Levels Test used in this study was presented by Schmitt, Schmitt and Clapham (2001). It includes five separate sections, which represent four levels of word frequency (the 2000 level, the 3000 level, the 5000 level, and the 10,000 level) as well as a set of academic vocabulary the writers compiled from the Academic Word List (Coxhead, 2000). Each vocabulary level contains 60 words and 30 definitions presented to test takers in groups of 6 words and 3 definitions. For each of these groups, the participants were asked to match the words with the definitions. Three words are given as extra in each group.

As Schmitt, Schmitt and Clapham (2001) present, the validation process of the test involved a total of 801 participants in 13 different groups at three sites in England, two in New Zealand, one in Slovakia, one in Brazil and two in Spain. These 801 participants were from more than 20

different countries. A number of tests were used for the purpose of validation such as native speaker judgements, item analysis, factor analysis and the results were proved to be highly valid. For the reliability analysis, Cronbach's Alpha was calculated and it was found to be ranging between .922 and .960 across different level groups. This test was used in this study due to its sound validation background as well as its practicality in providing the researcher with the opportunity to identify different frequency levels of words with a valid estimate of learners' vocabulary knowledge.

Listening Comprehension Test

For the purpose of testing the participants' listening comprehension, a standardized listening test from the Cambridge Certificate of Proficiency in English (CPE) was used. The CPE listening test was designed for the C2 level according to the classifications of proficiency levels by the Common European Framework of Reference (CEFR) for Languages. The test includes different target language situations that address a wide range of skills involved in listening comprehension such as listening for gist, detail, stated and non-stated opinion, as well as making inferences. There are 28 questions in the test which are divided by four different parts covering a variety of different text types. These task types are; multiple choice, sentence completion, and three-way matching. At the beginning of each part, the test gives time for the participants to have a look at the questions and each piece of text is played twice. Additionally, the test makes use of a variety of accents.

This test was used to assess participants' listening comprehension in this study for two reasons. First, it belongs to a widely known and well-validated examination; and secondly, the test covers a wide range of text types and target language situations, which was believed to decrease the negative effects that might be caused by the test itself.

Data Analysis Procedures

SPSS version 20 (IBM Statistics) was used to analyse the test scores. Pearson correlation was run on the results to understand the relationship the Vocabulary Levels Test has with the results of the Cambridge CPE Listening Test. Additionally, a sequential Multiple Regression was run among the results of the Cambridge CPE Test and different frequency levels of the Vocabulary Levels Test to see which level(s) predict(s) the variance in the listening comprehension test results.

Findings

Table 1 presents the descriptive statistics for the test scores of the 33 participants used in the data analysis. It shows the minimum and the maximum scores that the participants obtained from each test as well as the maximum possible score for each test. Also, mean scores and standard deviations are presented.

Table 1: Descriptive Statistics for the Test Scores

	N	Min.	Max.	MPS*	Mean	SD*
Cambridge CPE Listening Test Scores	33	3	21	28	8.67	4.262
2000 Level Vocabulary Test Scores	33	22	30	30	27.21	2.132
3000 Level Vocabulary Test Scores	33	14	29	30	22.76	3.250
Academic Level Vocabulary Test Scores	33	6	30	30	24.03	4.261
5000 Level Vocabulary Test Scores	33	5	26	30	18.00	4.873
10000 Level Vocabulary Test Scores	33	0	14	30	6.00	3.889
Total Score of Vocabulary Levels Test	33	69	129	150	98.55	12.538

MPS: Maximum Possible Score, SD: Standard Deviation

One important result to note is that the range between the minimum and the maximum score obtained from the Cambridge CPE Listening Test is high which results in a standard deviation ($SD = 4.262$) that makes up to half of the mean score ($M = 8.67$) for the test. Another important result is that as the frequency level of the vocabulary items increase, the mean scores decrease. This is an expected situation since the words in the 2000 level are the most frequent ones, thus, the students are expected to perform better on that level ($M = 27.21$). Accordingly, since the 10,000 level consists of words that are likely to be less seen or used by the learners, that level has the lowest mean score ($M = 6$). However, participants seem to have scored better on the academic level ($M = 24.03$) than on the 3,000 level ($M = 22.76$) although the 3,000 level is expected to include words that the students are more familiar with. Considering the fact that the participants are university students studying English in a classroom environment with different textbooks, this result might be justified.

The Role of Receptive Vocabulary in Listening Comprehension

Pearson product-moment correlations were computed between the scores on the Vocabulary Levels Test and the listening comprehension test to determine the relationship between receptive vocabulary knowledge and listening comprehension. The results are presented in Table 2 and Table 3 below.

Table 2: Pearson correlation between vocabulary knowledge and Cambridge CPE Listening Test

	Cambridge CPE Listening Test Scores
Pearson Correlation	.551
Total Score of Vocabulary Levels Test	Sig. (2-tailed) .001
N	33

As illustrated in Table 2, vocabulary knowledge and Cambridge CPE Listening Test is significantly correlated ($p < .05$). It is seen in this result that vocabulary knowledge produced a correlation of .55, which indicates a moderate relationship between the receptive vocabulary knowledge of a learner and the quality of this learner's listening comprehension. This result might also be interpreted as such; although there is not a very strong correlation with the overall vocabulary knowledge of a learner, without taking the different word frequency levels into consideration, this receptive overall vocabulary knowledge might still account for some variance in the learner's performance in listening comprehension.

Table 3: Sequential Multiple Regression Analysis among Different Word Frequency Levels and Listening Comprehension (N=33)

Model	<i>r</i>	R ²	R ² Change	Sig.
1	.359 ^a	.129	.129	.040
2	.394 ^b	.155	.027	.338
3	.498 ^c	.248	.092	.069
4	.656 ^d	.430	.182	.006
5	.661 ^e	.437	.007	.564

a. Predictors: (Constant), 2000 Level Vocabulary Test Scores

b. Predictors: (Constant), 2000 Level Vocabulary Test Scores, 3000 Level Vocabulary Test Scores

c. Predictors: (Constant), 2000 Level Vocabulary Test Scores, 3000 Level Vocabulary Test Scores, Academic Level Vocabulary Test Scores

d. Predictors: (Constant), 2000 Level Vocabulary Test Scores, 3000 Level Vocabulary Test Scores, Academic Level Vocabulary Test Scores, 5000 Level Vocabulary Test Scores

e. Predictors: (Constant), 2000 Level Vocabulary Test Scores, 3000 Level Vocabulary Test Scores, Academic Level Vocabulary Test Scores, 5000 Level Vocabulary Test Scores, 10000 Level Vocabulary Test Scores

In Table 3, the results of multiple regression among the five frequency word levels are given with respect to the dependent variable, listening comprehension test scores. In the table, the column titled *Model* gives the predictors, namely different word frequency levels one after the other in a sequential order. While calculating the regression, these predictors were entered in order of hierarchy of potential importance starting from the lowest level to the highest. The *r* column presents the correlations of these word frequency levels as presented in the model. The R² column reports the effect size of the correlations given in the previous column.

A quick overview of the results show that model 5, which includes all the word frequency levels, seems to have the highest correlation (.661). However, when the change statistics are observed, it

is seen that this change from model 4 to model 5 is not significant ($p > .05$). It is also seen in the R^2 change which is only .007 which means that adding the 10000-word frequency level to model 4 (that includes all the word frequency levels except for the 10000 level) almost does not change the result. In other words, model 4 seems to account for the highest variance in the listening comprehension test scores. This might be interpreted as the following; in model 3, only three-word frequency levels are analysed (the 2000 level, the 3000 level and the academic level); although this model seems to produce a high correlation (.498), these three-word frequency levels might account for 24% of the variance in the listening comprehension test. On the other hand, when the 5000-word frequency level is added to the model (model 4), the R^2 changes to .430 with a significance value smaller than .05 and an R^2 change of .182. It shows that the 5000-word level alone might account for 18% of the variance in the listening comprehension test. Taken together, the 2000-word level, the 3000-word level, the academic word level, and the 5000-word level account for 43% of the variance in the listening test, which is a high effect size. This result might also mean that nearly half of the variance in the listening comprehension test accounts for the vocabulary knowledge of the participants (43%). The other half (57%) must result from other factors that are not tested in the study.

Discussion and Conclusion

One of the results of this study shows that there is a moderate correlation between vocabulary knowledge and listening comprehension. An important result of this study is that different word frequency levels are shown to account for listening comprehension in different levels. The analyses show that the 5000-word level alone has the strongest correlation with listening comprehension. This might also mean that if the 10000-word level was extracted from the total test score of the participants, the correlation would be even higher than (.55). In other words, as the vocabulary size of the participants grows larger, they tend to achieve better scores in listening comprehension. A similar result is presented in Teng (2016), where the researcher concluded that the vocabulary knowledge (breadth and depth combined) accounted for 78% of the total variance in successful listening comprehension.

The starting point of this study is the previous research conducted by Stæhr (2009). In his study, he reports a relatively strong correlation (.70) between vocabulary knowledge and listening comprehension, using the same instruments. Although this study does not report a correlation that high, a correlation of .55 cannot be considered low. This study indicates that receptive vocabulary knowledge might account for 43% of the total variance in listening comprehension. This is a high percentage considering the fact that no other variables such as motivation, anxiety, gender, age or other language skills have been investigated in this study as it focuses on different vocabulary levels. The fact that Danish and Turkish learners of English come from different language backgrounds (e.g., Germanic vs. non-Germanic) must also be taken into consideration. In a similar vein, according to Wang and Treffers-Daller (2017), L2 vocabulary knowledge alone accounts for 13% of the variance, along with general language proficiency (13%) and metacognitive awareness (4%). It might be assumed, therefore, that the explanatory power of other variables must also be a good indicator of listening comprehension quality, along with vocabulary knowledge. Further studies can focus on these other variables.

The pedagogical implications of this study can be summarized as follows: it is important for language teachers to give importance to growing learners' vocabulary knowledge to contribute to higher levels of listening comprehension in the L2. The findings of this study draw attention to the need for a specific focus on expanding the vocabulary knowledge of learners in EFL classrooms. Vocabulary teaching has traditionally been neglected in EFL classrooms in Turkey with few exercises here and there in textbooks. Mutlu and Kaşlıoğlu (2016) investigated the receptive vocabulary size of Turkish EFL learners at different levels and in different contexts. They found that EFL textbooks in Turkey, which are published by the Ministry of National Education and used in state schools, fail to provide the learners with sufficient exposure to various aspects of vocabulary knowledge and opportunities for recycling vocabulary. It might be argued that a broader and more comprehensive way of teaching vocabulary needs to be developed to expand learners' vocabulary knowledge. Even though this study might not suggest ways to teach vocabulary, and it might not be generalizable due to its small sample size, it does show that reaching the 5000-word level allows learners to perform better in listening comprehension tests. Textbook writers, materials designers, teachers, and curriculum developers should therefore take the 5000-word level as their target when including listening skill in their materials, programs, and classrooms.

Lexical competence or vocabulary knowledge is now proven to be a determining factor in reading comprehension (e.g., Chen & Teng, 2017; Çakmak & Erçetin, 2017; Hu & Nation, 2000; Paribakht & Wesche, 1999; Pigada & Schmitt, 2006; Rott, 1999; Shen, 2008). However, in the literature, there are also some studies claiming and proving that listening comprehension is also determined to some extent by lexical competence (Bonk, 2000; Stæhr, 2009). This study makes a small contribution to the research into the role of vocabulary knowledge in listening comprehension.

About the Author

Ufuk Ataş is currently a PhD candidate in English Language Teaching at Middle East Technical University, Ankara, Turkey. His research interests include language teacher education, teacher professionalism, teacher educator professionalism, language skills, code-switching, and receptive multilingualism.

References

- Bonk, W. (2000). Second language lexical knowledge and listening comprehension. *International Journal of Listening*, 14, 14-31.
- Buck, G. (2001). *Assessing Listening*. New York: Cambridge University Press.
- Cameron, L. (2001). *Teaching languages to young learners*. Cambridge: Cambridge University Press.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34, 213-238.

- Çakmak, F. & Erçetin, G. (2017). Effects of gloss type on text recall and incidental vocabulary learning in mobile-assisted L2 listening. *ReCALL*, 1-24.
- Chen, X. & Teng, F.. (2017). Assessing the effects of word exposure frequency on incidental vocabulary acquisition from reading and listening. *Chinese Journal of Applied Linguistics*, 40, 56–73.
- Harmer, J. (1991). *The practice of English language teaching*. New York: Longman.
- Hatch, E., & Brown, C. (1995). *Vocabulary, semantics, and language education*. Cambridge: Cambridge University Press.
- Hu, M., & Nation, I. S. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13, 403-430.
- Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K. Malmkjær, & J. Williams (Eds.), *Performance and competence in second language acquisition* (pp. 35-53). New York: Cambridge University Press.
- Mecartty, F. (2000). Lexical and grammatical knowledge in reading and listening comprehension by foreign language learners of Spanish. *Applied Language Learning*, 11, 323-348.
- Morley, J. (2001). Aural comprehension instruction: principles and practices. In M. Celce-Murcia (Ed.), *Teaching English as a Second or Foreign Language* (3rd ed., pp. 69-85). Boston, MA: Heinle and Heinle.
- Mutlu, G. & Kaşlıoğlu, Ö. (2016). Vocabulary size and collocational knowledge of Turkish EFL learners. *Journal of Theory and Practice in Education* 12(6): 1231-1252.
- Nation, P. (1983). Testing and teaching vocabulary. *Guidelines*, 5, 12-25.
- Nation, P. (1990). *Teaching and learning vocabulary*. Boston, MA: Heinle and Heinle.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Paribakht, S. T., & Wesche, M. (1999). Reading and "incidental" L2 vocabulary acquisition: An introspective study of lexical inferencing. *Studies in Second Language Acquisition*, 21, 195-224.
- Peterson, P. W. (2001). Skills and strategies for proficient listening. In M. Celce-Murcia, & L. McIntosh (Eds.), *Teaching English as a Second or Foreign Language* (3rd ed., pp. 87-100). Boston, MA: Heinle and Heinle.
- Pigada, M., & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: a case study. *Reading in a Foreign Language*, 18, 1-28.

- Read, J. (2000). *Assessing vocabulary*. New York: Cambridge University Press.
- Rost, M. (2002). *Teaching and researching listening*. London: Longman.
- Rott, S. (1999). The effect of exposure frequency on intermediate language learners' incidental vocabulary acquisition and retention through reading. *Studies in Second Language Acquisition*, 21, 589-619.
- Schmidt-Rinehart, B. (1994). The effect of topic familiarity on second language listening comprehension. *Modern Language Journal*, 78, 179-189.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of the two new versions of the Vocabulary Levels Test. *Language Testing*, 18, 55-89.
- Shen, L. S. (2008). The roles of depth and breadth of vocabulary knowledge in EFL reading performance. *Asian Social Science*, 4(12), 135-137.
- Shohamy, E., & Inbar, O. (1991). Validation of listening comprehension tests: the effects of text and question type. *Language Testing*, 8, 23-40.
- Sökmen, A. J. (1997). Current trends in teaching second language vocabulary. In N. Schmitt, & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 237-257). Cambridge: Cambridge University Press.
- Stæhr, L. S. (2009). Vocabulary Knowledge and advanced listening comprehension in English as a foreign language. *Studies in Second Language Acquisition*, 31, 577-607.
- Teng, F. (2016). An in-depth investigation into the relationship between vocabulary knowledge and academic listening comprehension. *TESL-EJ*, 20(2), 1-17.
- Vandergrift, L. (2006). Second language listening: listening ability or language proficiency? *Modern Language Journal*, 90, 6-18.
- Wang, Y. & Treffers-Daller, J. (2017). Explaining listening comprehension among L2 learners of English: The contribution of general language proficiency, vocabulary knowledge and metacognitive awareness. *System*, 65, 139-150.