Turkish EFL learners’ lexical competence and performance

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Abstract
Vocabulary has been accepted as an important aspect of language learning in many studies. In the light of these studies in literature, the purpose of the present study is to evaluate the general and academic lexical competence and performance of preparatory class students at School of Foreign Languages, Kütahya Dumlupınar University. Within this aim, the current study investigated the students’ general and academic receptive and productive vocabulary knowledge and their interrelationships among each other. The participants of the study included 94 preparatory class students who were going to major at Department of English Language and Literature. Through multiple test technique, two different vocabulary tests, a writing task, and a speaking task were implemented. According to the results, the students had large general and academic vocabulary size and depth. However, they mostly preferred high frequency words more than low frequency words and academic words. Moreover, their scores in productive vocabulary were lower than their receptive vocabulary knowledge scores. Therefore, it was observed that they could not reflect their lexical competence in their lexical performance.

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Keywords: Lexical competence; lexical performance; vocabulary size; vocabulary depth; academic vocabulary

1. Introduction
Throughout the years, grammar learning was the main basis of language learning; yet, the outstanding status of vocabulary learning in language learning process was recognized later (Nation, 1990; Schmitt, 1997). Lexicon is regarded as the main aspect of language comprehension and use (Hunt & Beglar, 2005).

In consequence of the interest on the importance of vocabulary learning, many studies have been conducted related to both knowing vocabulary and producing vocabulary (Fan, 2000; Laufer & Goldstein, 2004; Laufer, Elder, Hill, & Congdon, 2004; Webb, 2005; Chen & Ge, 2007; Vongpumivitch, Huang, & Chang, 2009; Meara & Alcloy, 2010; Rashidi & Khosravi, 2010; Schmitt, Ng, & Garras, 2011; Zhou, 2010; Aziez, 2011; Hellman, 2011; Ho & Lien, 2011; Mehrpour, Razmjoo, & Kian, 2011;
Ehsanzadeh, 2012; Yüksel & Durmuşoğlu Köse, 2013; Karakoç, 2016; Tömen, 2016; Kalay, 2017). All of these mentioned studies elucidated the relationship between vocabulary and language acquisition; therefore, vocabulary knowledge, in other words, lexical competence, is suggested as one of the most essential determinants in language learning concerning the other skills such as listening comprehension, reading comprehension, quality of writing, fluency in speaking, and grammar patterns.

Vocabulary knowledge is examined in several aspects as receptive vocabulary and productive vocabulary (Webb, 2005). Receptive vocabulary dimension contains vocabulary size and depth. The size of vocabulary means the number of words that learners know and the depth of vocabulary shows learners’ knowledge of various aspects regarding the target word (Yüksel & Durmuşoğlu Köse, 2013). The studies mostly have focused on receptive vocabulary achievement of learners. However, productive vocabulary shows that learners can take part actively in production process of their vocabulary knowledge so that they have a chance to prove themselves perceptibly as a result of their specializing and using the target words in a correct way.

1.1. Receptive and productive vocabulary knowledge

Receptive and productive vocabulary knowledge of the learners was the main subject of many studies in the field (Webb, 2005; Zareva, 2005; Zhou, 2010). To begin with, Zareva (2005) implemented a study to present the aim of recognizing the minimum set of lexical knowledge indicators that are considered to be as practical as the full model at estimating the detailed case of native speakers and second language learners’ lexicon. Receptive and productive dimensions were analysed by participants’ skills to identify a word and give definitions of it through presenting clarification, appropriate synonym and translation of the target word. As a result of the study, the model of Zareva (2005) can be used for contrasting L2 learners’ lexical competence and native speakers’ knowledge of word because this model enabled to produce unpredictable results through three groups.

Webb (2005) also conducted a study comparing receptive and productive vocabulary so as to learn the effects on vocabulary knowledge corresponding with reading and writing activities. Two experiments were implemented and they were different from others in which he assessed five aspects of vocabulary knowledge; meaning and grammatical patterns, orthography, syntax, association and form of the vocabulary via tests. The tests on receptive and productive vocabulary demonstrated significant outcomes on association, syntax, meaning, grammar and orthography. Nevertheless, productive tasks had more effects than receptive tasks in vocabulary learning.

In many studies, lexical diversity is predicted to obtain effects on learners’ writing scores and the task quality. With respect to that, Lemmouh (2008) carried out a study with 37 participants consisting of advanced English students. Three tests were implemented in order to compare their lexical richness scores in their essays and their grades in addition to lesson grades and their word knowledge. Apart from the tests, a questionnaire with 14 item was utilized to the teachers grading the essays to reveal the significance of lexical richness in grading procedure for them. The results of the study found out that overall lesson grades and advanced vocabulary use in essays were correlated to each other. Moreover, teachers graded the essays giving importance to grammar and content rather than lexical features.

Douglas (2010) also studied lexical richness and its effects on students’ academic success at university level. A writing test was included to assess the participants’ academic achievement since he believed that writing skills must be accepted as a sample of academic success. Lexical profiling instrument was implemented to calculate lexical richness in the study and the outcomes showed that lexical richness was effective in writing evaluation processing and academic success.

Furthermore, Yüksel and Durmuşoğlu Köse (2013) conducted a study with freshman and senior students at university level in order to reveal learners’ receptive and productive vocabulary knowledge. The
instruments that guided the study included Vocabulary Level Test (VLT), Word Associates Test (WAT), Lexical Frequency Profile (LFP), and WordSmith Tools in addition to a paragraph writing task. The results showed that the participants’ lexical competence was larger than their lexical performance and these two dimensions had impacts on one another.

Moreover, Zhong (2014) examined the internal form of vocabulary knowledge under the terms of receptive and productive vocabulary knowledge as a multi-aspect framework. The aim of the study was to look at the receptive knowledge of some aspects as meaning, form, morphology, collocation and association. The relationship between these aspects and productive vocabulary knowledge were also included to be dealt with as an aim of the research. The participants of the study comprised of 523 EFL high school students in China. Five different vocabulary tests were implemented adopting multi-task approach. The results pointed out that the more students’ vocabulary knowledge improved the more their receptive knowledge including all the aspects showed a consistent quantity of alteration in productive vocabulary knowledge. Furthermore, participants’ productive vocabulary knowledge affected the collocation and association more than other dimensions in their receptive knowledge. All in all, the study provided a different point of view regarding the progressional pattern from receptive vocabulary to productive vocabulary. It also displayed a correlation between receptive and productive vocabulary knowledge overtly.

The impact of vocabulary knowledge on writing, reading and proficiency scores was examined by Karakoç (2016) in a Turkish context with preparatory school students. This research study examined the connection between receptive and productive knowledge. The relationships between reading performance and productive vocabulary knowledge and writing performance and productive vocabulary knowledge were aimed to be discussed. As instruments of the study, vocabulary level tests, a reading exam and a writing exam were utilized and their scores were evaluated. LFP also was implemented to find out lexical level of the participants’ essays. According to the analysis, the participants’ performances on reading, writing and proficiency exams were significantly affected by their vocabulary knowledge. Moreover, it was found out that the students’ productive vocabulary knowledge and the lexical level of their essays had effects on each other.

Tömen (2016) also applied a study to be able to evaluate participants’ vocabulary size, lexical density and lexical diversity in Turkish context. The participants of the study included 309 freshmen and senior students from English Language Teaching department. Argumentative essays and writing tasks of the students were used as the instruments of the study. In data analysis part, LFP was utilized. Considering the outcomes, it could be concluded that lexical features did not directly affect the students’ writing scores.

Similarly, another study was implemented at higher education level in Turkish context by Kalay (2017). 371 preparatory school students attended the study and they were given three different instruments as VLT, WAT and a writing task. The purpose of the study was to evaluate the participants’ receptive vocabulary knowledge including size and depth in addition to productive vocabulary knowledge containing writing skill. The results implied that the learners’ lexical competence and performance are interconnected.

1.2. Academic lexical competence and performance

The researchers in the field conducted several studies related to the students’ academic lexical competence and performance. To begin with, the students’ depth of second language academic vocabulary knowledge at a university level was examined by Santos (2010). The impacts of academic vocabulary knowledge on size of second language vocabulary knowledge and their mother tongue skills were aimed to be analyzed. As a result of the study, academic vocabulary was found as problematic and
a direct relationship was stated between the students’ breadth and depth of academic vocabulary and their mother tongue skills. In other words, the students have weak academic vocabulary knowledge when their L1 and L2 academic skills are low.

To illustrate another empirical study on this topic, Zhou (2010) implemented a research study to investigate and compare Chinese students’ receptive and productive academic vocabulary knowledge in EFL classes. It was also aimed to revise the implications for academic vocabulary teaching in classes. As instruments, Vocabulary Level Test (Schmitt, Schmitt, & Clapham 2001) and another test developed by the researcher were applied to evaluate productive vocabulary. The findings revealed that high level of receptive academic vocabulary size provided larger productive academic knowledge among the students. Academic vocabulary knowledge in receptive dimension rises at a higher amount when it was compared to productive knowledge, as well.

There are several studies claiming that academic vocabulary has a key role on vocabulary learning process, especially the words from Academic Word List (AWL) in order to provide learners academic achievement at university level (Morris & Cobb, 2004; Coxhead & Nation, 2001; Cobb & Horst, 2000; Laufer & Paribakht, 1998; Laufer & Nation, 1995). These studies had a common result, which demonstrated that students had better academic performances on the condition that they could utilize academic vocabulary in an effective way.

The applicability of AWL to different kinds of disciplines was studied by several researchers in different fields such as engineering, anatomy, applied linguistics, business and finance. The findings of these researches showed that AWL basically includes common vocabulary across all these areas (Mudraya, 2006; Chung & Nation, 2003).

AWL has been implemented in both spoken discourse and in written discourse. Hincks (2003) conducted a study regarding learners’ second language presentations about technical issues and analysed them through AWL.

1.3. Research Questions

The present study aims to investigate Turkish preparatory class students’ general and academic aspects of lexical competence and performance at a state university. The size and depth dimensions of receptive vocabulary knowledge were examined in order to find out the relationship between them and the students’ performances on writing and speaking in English as productive vocabulary knowledge.

The following research questions were formed in order to identify the participants’ receptive and productive vocabulary knowledge and the interrelationship between these two dimensions:

1. What is the level of the students’ general and academic lexical competence?
   a. What is Turkish preparatory students’ size of general vocabulary knowledge?
   b. What is Turkish preparatory students’ size of academic vocabulary knowledge?
   c. What is Turkish preparatory students’ depth of general vocabulary knowledge?

2. What is the level of Turkish preparatory students’ general and academic lexical performance?

3. Is there a correlation between students’ lexical competence and performance?

2. Method

2.1. Research Setting

The study was carried out at School of Foreign Languages (SFL), Kütahya Dumlupınar University (KDPU). The medium of instruction at KDPU is Turkish. At SFL, English preparatory class is
compulsory only for the students of English Language and Literature, Elementary Mathematics Teaching, and Electrical and Electronic Engineering programs. Apart from that, the students from other programs can also attend to preparatory class if they wish. When these students register for preparation school program, they are also required to fulfil all the necessities for that program as the obligatory students. The study was carried out at Kütahya Dumlupınar University (KDPU) School of Foreign Languages (SFL). The medium of instruction at KDPU is Turkish. At SFL, English preparatory class is compulsory only for the students of English Language and Literature, Elementary Mathematics Teaching, and Electrical and Electronic Engineering programs. Apart from that, the students from other programs can also attend to preparatory class if they wish. When these students register for preparation school program, they are also required to fulfil all the necessities for that program as the obligatory students.

2.2. Participants

In the current study, among three level of students at preparatory class, intermediate level of students was determined to be studied, including all English Language and Literature students; therefore, they were considered as the most advanced students in English among the all levels. At the outset of the study, there were initially 100 students to participate in the study; yet, six students dropped out of the school. Therefore, the population of the study was 94 students. All participants in the study were Turkish students learning English as a foreign language. The students attended the proficiency exam; yet, they were not able to pass it. Their proficiency levels were defined at the beginning of the academic year through the placement exam at KDPU SFL.

2.3. Instrument(s)

The focus of the present study is to evaluate the students’ general and academic lexical competence and performance. Therefore, different instruments were implemented to answer the research questions posed. The students’ size and depth of general and academic vocabulary knowledge were measured through Vocabulary Level Test (VLT), in which the vocabulary and the meanings were supposed to be matched in different frequency bands consisting of 2000th, 3000th, 5000th, Academic Word List (AWL), and 10000th levels. By this way, how many words the learners know came to light. The depth of vocabulary knowledge of the participants was evaluated through Word Associates Test (WAT), in which the students were required to find semantically related words with the target words. It was revealed how, how well the learners know the words in target language with the help of this test. On the other hand, as productive skills of the students, opinion essays for writing skills and speaking tasks for speaking skills were implemented to reveal the number of productive vocabulary use of the students. The students were supposed to write opinion essays including at least 150 words according to the assigned topic and to perform given speaking task. Hereby, the students’ productive vocabulary knowledge containing general and academic aspects were investigated.

2.4. Data collection procedure

The data were collected from the participants in the spring term in 2019. VLT and WAT were distributed to the subjects during the regular class hour. Before distributing the test, the researcher explained the aim of the study to the participants. The students were not allowed to use any kind of dictionaries and ask someone the meaning of words in the class while answering the questions. Firstly, they were supposed to do VLT in one class hour (50 minutes) and after 10 minutes-break, they were asked to do WAT in another class hour. After the implementation of VLT and WAT, the participants were to write an opinion paragraph about “How to make a good first impression” the following day. The time given
to the participants was 50 minutes. Later, the participants were asked to perform the speaking tasks another day in the same week. In the speaking task, the students were allowed to speak individually about the given task. The topic of the speaking task was determined as “Change” and the participants were supposed to talk about it. The speaking tasks were implemented in a class one by one and the duration of each task was 2 minutes. In the procedure of speaking performance, the participants were asked to introduce themselves as a preparation part and then they were supposed to talk about the given task. While they were speaking, their voices were tape recorded by the researcher.

2.5. Data analysis procedure

Instruments were collected from the participants and they were evaluated according to their grading procedure of the tools. VLT was graded regarding the five frequency bands as well as the whole score. On the other hand, WAT was evaluated by typing the responses on the website one by one. Moreover, opinion paragraphs were typed into the computer and then entered on VocabProfile separately. In addition to them, speaking performances of the students as a result of implementing speaking tasks were transcribed and then entered on VocabProfile individually like opinion paragraphs. After that, they were analysed through the program as the same procedure as opinion paragraphs. An overall sight of subjects’ vocabulary size (VLT), depth (WAT), and lexical use (speaking and writing) were determined through descriptive statistics. In addition, a Pearson’s correlation test was implemented in order to analyse the correlation among all the instruments.

3. Results

3.1. Findings on lexical competence of the students

“What is the level of students’ general and academic lexical competence?” was the first research question in this study. It involves students’ size and depth of receptive vocabulary knowledge. Initially, this question was answered through the analysis of lexical competence.

3.1.1. Size of general and academic vocabulary knowledge

Considering the scores shown in Table 1, the subjects’ vocabulary knowledge was the highest point at 2000th level (M = 25.84) and the lowest point at 10000th level (M = 6.77). According to the table, when the levels rise, the scores of the students fall because 2000th level contains the highest frequent level of words whereas 10000th level includes the lowest frequency level of words. Therefore, it could be stated that the students knew low level of words more than high levels. Apart from that, academic vocabulary level (M = 28.01) showed that the participants were also familiar with academic words. 5000th level (M = 18.33) and the 10000th level (M = 6.77) were the parts that the participants had difficulties to choose the correct words and got lower scores comparing to other levels. Moreover, the total score of VLT implied that the students’ size of vocabulary knowledge was more than half of the words (M = 102.44).

Table 1. Descriptive statistics of Vocabulary Level Test

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLT_2000</td>
<td>94</td>
<td>13</td>
<td>30</td>
<td>25.84</td>
</tr>
<tr>
<td>VLT_3000</td>
<td>94</td>
<td>7</td>
<td>30</td>
<td>23.37</td>
</tr>
<tr>
<td>VLT_ACADEMIC</td>
<td>94</td>
<td>9</td>
<td>36</td>
<td>28.01</td>
</tr>
</tbody>
</table>
In the first part of the analysis on lexical competence, the learners’ size of vocabulary knowledge including both general and academic was investigated through frequency bands and overall knowledge of the words. The findings present that frequency of vocabulary was found as an effective factor in finding out the learners’ vocabulary size. To conduct more research about the subjects’ receptive vocabulary knowledge, the depth of vocabulary was also investigated as the second part of the analysis.

3.1.2. Depth of general vocabulary knowledge

Table 2 demonstrates the students’ scores. The mean score was nearly half out of the total score from WAT (M = 76.74). It can be reached that the subjects’ depth of vocabulary knowledge was nearly half out of the total score. In this context, it could be referred that although the participants showed higher level of performances regarding their size of vocabulary knowledge, they had limited quality of vocabulary knowledge as a result of the evaluation of WAT.

Table 2. Descriptive Statistics of Word Associates Test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAT</td>
<td>94</td>
<td>9</td>
<td>124</td>
<td>76.74</td>
<td>26.791</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The mean values were determined out of 160, the maximum score of WAT.

3.1.3. Overall lexical competence

Comparing these two tests, the students’ performances on VLT were higher than WAT. It demonstrates that the students knew more vocabulary in terms of the number of words; however, they were not successful at the depth of the words. It could be concluded that the subjects of the current study had receptive vocabulary knowledge quite well as the total scores displayed.

To be able to evaluate the relationship between total scores of VLT and WAT, a Pearson’s correlation analysis was run between these two vocabulary tests. The results indicate that there was a positive correlation between the vocabulary tests, which measured the participants’ receptive vocabulary knowledge. The correlation value of VLT and WAT is seen as 0.01 (2-tailed) significance level. The significant positive correlation suggests that the subjects’ scores from one vocabulary test may estimate the scores in another test. It was suggested that correlations are interpreted as weak, moderate, and strong by values between -1.00 and 1.00. The values between 0.10 and 0.30 are determined as weak; 0.30-0.50 are determined as moderate; and 0.50-1.00 are determined as strong (Cohen, 1988). Regarding this guideline, the results were clarified. Particularly, there was a moderate positive correlation between VLT and WAT [r =0.311, p<.01], which means that the larger number of words the participants know, the more accurate they can utilize the words appropriately while using the second language.

3.2. Findings on lexical competence of the students

In order to answer the second research question “What is the level of Turkish preparatory students’ general and academic lexical performance?”, the participants’ productive vocabulary knowledge was identified. A writing task was implemented to learn the students’ use of vocabulary knowledge in...
writing, and a speaking task was utilized to find out the students’ use of oral vocabulary knowledge in speaking.

3.2.1. Productive vocabulary knowledge on writing tasks
As it could be concluded from Table 3, the participants’ first 2000th level of frequency bands were really high (M = 90.75). On the other hand, their academic word use was very low (M = 2.91). Therefore, it could be claimed that the students may produce high frequent level of words much more than academic words in their writing tasks. Off-list words were the words that were except from these categories, which may be accounted as low frequency words. (M = 6.09).

Table 3. Descriptive statistics for lexical performance on writing

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean*</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRITING_K1+K2</td>
<td>94</td>
<td>81</td>
<td>97</td>
<td>90.75</td>
</tr>
<tr>
<td>WRITING_AWL</td>
<td>94</td>
<td>0</td>
<td>8</td>
<td>2.91</td>
</tr>
<tr>
<td>WRITING_OFFLIST</td>
<td>94</td>
<td>1</td>
<td>14</td>
<td>6.09</td>
</tr>
</tbody>
</table>

*Mean scores were calculated out of 100.

3.2.2. Productive vocabulary knowledge on speaking tasks
As Table 4 shows, the students’ use of the first 2000th level words were quite high (M = 93.29). However, they did not include academic words in their speech much (M = 1.63). Finally, the off-list category words were larger than academic words (M = 5.01).

Table 4. Descriptive statistics for lexical performance on speaking

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean*</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEAKING_K1+K2</td>
<td>94</td>
<td>87</td>
<td>97</td>
<td>93.29</td>
</tr>
<tr>
<td>SPEAKING_AWL</td>
<td>94</td>
<td>0</td>
<td>4</td>
<td>1.63</td>
</tr>
<tr>
<td>SPEAKING_OFF_LIST</td>
<td>94</td>
<td>1</td>
<td>12</td>
<td>5.01</td>
</tr>
</tbody>
</table>

*Mean scores were calculated out of 100.

3.2.3. Overall lexical performance
The outcomes show that the participants used the first 2000th level of frequent words (K1+K2) in speaking (M = 93.29) slightly more than writing (M = 90.75). Both of the productive vocabulary use in writing and speaking could be accepted as a high level because their scores were more than 90 out of 100. When it came to academic word level, the participants’ academic word use in writing (M = 2.91) was slightly more than in speaking (M = 1.63). Lastly, the scores of off-list words in writing (M = 6.09) were higher than in speaking (M = 5.01).

To be able to investigate the connection between the students’ speaking and writing scores, a Pearson’s correlation analysis was run between these two productive vocabulary use tasks. To make the results clear, there was a strong positive relationship between the students’ first 2000 level of words in writing and speaking tasks [r=0.532, p<.01] which puts forward that when the students used the first two level bands of vocabulary in writing, they utilized the same frequent-band words in their speaking as well. This situation was also the same for the relationship between academic word level of vocabulary in writing and speaking tasks [r=0.386, p<.01] which showed a moderate positive correlation. The students’ use of academic words in their writing and speaking tasks was similar. Moreover, off-list words in writing and speaking tasks were positively correlated with each other at a moderate degree
[\textit{r}=0.328, \textit{p}<.01]. It could be deduced that the students’ production of off-list words was similar in their writing and speaking tasks. On the other hand, first 2000 level of words was negatively correlated with academic word level of vocabulary [\textit{r}= -0.549, \textit{p}<.01] and off-list words in writing tasks [\textit{r}= -0.789, \textit{p}<.01]. The relationship between first 2000 level of words and academic word level of vocabulary in writing tasks and off-list words in writing could be regarded as a strong one. The outcomes in speaking part were also similar to writing part, which showed first 2000 level of words was negatively correlated with academic word level of vocabulary [\textit{r}= -0.368, \textit{p}<.01] and off-list words in speaking tasks [\textit{r}= -0.910, \textit{p}<.01]. The correlation between first 2000 level of words and academic word level of vocabulary in writing tasks could be determined as moderate; the relationship between first 2000 level of words and off-list words in writing tasks could be concerned as a strong one. These relationships demonstrate that when the students’ use of high frequency words expands, their use of academic and off-list words decreases or vice versa. Because of the fact that off-list words contained low frequent words, these results were in accordance with the students’ first 2000 level of words and off-list words both in writing and speaking.

3.3. Interconnection between the participants’ lexical competence and performance

On the purpose of investigating the relationship among all the aspects of lexical competence and performance of the students in the study, the third research question “Is there a correlation between students’ lexical competence and performance?” was scrutinized through a Pearson’s correlation analysis on the outcomes of all instruments (Table 5).

\begin{table}[h]
\centering
\begin{tabular}{lccccccc}
\hline
 & VLT_TOTAL & WAT & WRITING_K1+K2 & WRITING_AWL & SP_K1+K2 & SP_AWL \\
\hline
\textit{Pearson} & & & & & & & \\
\textit{Correlation} & --- & 0.314** & 0.364** & 0.105 & 0.318** & 0.106 & \\
\textit{Sig. (2-tailed)} & 0.002 & 0.000 & 0.315 & 0.000 & 0.307 & \\
\textit{N} & 94 & 94 & 94 & 94 & 94 & \\
\textit{WAT} & & & & & & & \\
\textit{Pearson} & & & & & & & \\
\textit{Correlation} & --- & --- & 0.328** & -0.164 & 0.306** & -0.060 & \\
\textit{Sig. (2-tailed)} & 0.000 & 0.115 & 0.000 & 0.567 & \\
\textit{N} & 94 & 94 & 94 & 94 & 94 & \\
\textit{WRITING_K1+K2} & & & & & & & \\
\textit{Pearson} & --- & --- & --- & -0.549** & 0.532** & 0.065 & \\
\textit{Correlation} & & & & & & & \\
\textit{Sig. (2-tailed)} & & & & & & & \\
\textit{N} & & & & & & & \\
\textit{WRITING_AWL} & & & & & & & \\
\hline
\end{tabular}
\caption{The correlation analysis of receptive and productive vocabulary scores}
\end{table}
The learners’ receptive vocabulary knowledge with regards to size of vocabulary had an effect on their productive vocabulary knowledge including writing and speaking. However, the influence of vocabulary size on writing had slightly more than speaking but the difference is small. What is more, WAT had a positive relationship with first 2000 level of words in scores of writing tasks \([r=0.328, p<.01]\) and speaking tasks \([r=0.306, p<.01]\) at a moderate degree as well. These findings proved that the participants’ receptive vocabulary knowledge concerning depth of vocabulary had an effect on their writing and speaking skills, which could be counted as productive vocabulary. The outcomes imply that the depth of vocabulary knowledge had slightly more effect on writing than speaking. What’s more, the size of vocabulary had also slightly more impact on writing than speaking.

Moreover, it could be stated that the students’ academic knowledge had an effect on their use of academic knowledge in their speaking and writing tasks. However, the results of academic word level scores of VLT were found as not correlated with off-list words in speaking and writing at 0.001 significance level; therefore, it could be said that the students’ academic word knowledge receptively does not affect their use of off-list words productively.

### 4. Discussion

In this section, the results obtained from the instruments are discusses referring to the related literature.

### 4.1. Insights of lexical competence

To determine the participants’ lexical competence, the size of vocabulary knowledge was measured by the instrument of VLT while the depth of vocabulary knowledge was evaluated through WAT. It could be concluded that the students’ size of receptive vocabulary knowledge was accepted as a determinant on their depth of receptive vocabulary knowledge or their depth of vocabulary knowledge could be concerned as a significant factor on the size of vocabulary knowledge.

The students’ size of vocabulary knowledge was found out as high \(M = 102.44\) out of 150 and the reason why they got high scores could be comprehensible input that they were exposed to during the lessons because they did not have any vocabulary course separately at the preparatory class. The participants acquired the vocabulary through exposure to skills lessons as Reading and Writing and Listening and Speaking, which are language-focused courses. These outcomes suggested the value of comprehensible input given in foreign language lessons through the materials (Yüksel & Durmuşoğlu...
Köse, 2013). Thus, it was believed that the students’ size of vocabulary knowledge could be raised without an explicit way of teaching vocabulary.

The scores of the participants from each frequency level in VLT were distinct regarding their competences on word frequency levels. In detail, the students’ results were lower at 5000th and 10000th levels than the 2000th, 3000th, and AWL. These outcomes are in compliance with the findings of Yüksel and Durmuşoğlu Köse’s (2013) study. They also put forward that EFL students are successful at noticing the high frequency level of words rather than low frequency level of words. Moreover, the present study corresponds to the results of Vermeer (2001) since the researcher implied that less proficient students had an inclination to be acquainted with more frequent words; on the other hand, the students’ better insight into the language causes them to be adjusted to less frequent words. To put differently, the more language learners acquire, the better the networks and the deeper the vocabulary knowledge they will have.

Cohen (1986) also explained that some words enter the vocabulary of students very easily without much attention, while others need conscious effort that involves the repetition of memory or techniques of organization. In particular, low frequency words and academic words require such a special effort. The analysis of the students’ vocabulary size regarding the frequency bands promoted this assumption as well.

Considering the relationship between the students’ breadth and depth of vocabulary knowledge, Zareva (2010) put forward that when the number of words that the students know increases, they get more familiar with a well-established and interconnected lexicon. Furthermore, the researcher also suggested that expanding levels of lexical competence enable the students to form an important network within the lexicon. All these relational bonds enrich the process of awareness, which helps the students to be able to notice and utilize more vocabulary items in a useful way. It was assumed that smaller size of vocabulary is characterized through fewer links among the words whereas larger size of vocabulary demonstrates more connectivity allowing the learners to associate more words.

In addition to these studies, Schmitt and Meara (1997) reported a high and significant vocabulary association and size of vocabulary as a result of their study. Taking into consideration the interaction between size and depth, Qian (1999) concluded that language learners would not have an in-depth vocabulary knowledge in which their general size of vocabulary was limited.

The studies by Yüksel and Durmuşoğlu Köse (2013) and Kalay (2017) established a similar point of view through the analysis of the relationship between breadth and depth of vocabulary knowledge. The ideas of the researchers prove that size and depth of vocabulary could be dominated by the construction of lexical competence.

The academic dimension of receptive vocabulary knowledge was evaluated with the help of the instrument AWL frequency band in VLT. The findings showed that the students recognized academic words in the list ($M = 28.01$ out of 36); yet, these outcomes fell behind the students’ 2000th and 3000th word levels in VLT. This situation can be explained with the characteristics of academic vocabulary as abstraction, polysemy, which can be defined as one form can have several meanings at the same time, and homonymy, which means that one definition can be exemplified by several forms (Nation, 2001). It can give rise to difficulties for the students to learn and utilize academic vocabulary because of the fact that the definitions of new academic vocabulary do not link with the words of mother tongue, for which semantic descriptions are already improved (Yüksel & Durmuşoğlu Köse, 2013). In order to cope with this problem, researchers stated that exposure to learn academic vocabulary is an effective way (Laufer, 1998). If the students encounter fewer academic words as a result of reading less, they will learn restricted meanings of any polysemic academic words. As a consequence of that, it would prevent
the students’ academic vocabulary development. Therefore, it can be proved that the more the learners are exposed to language, the more academic vocabulary they acquire.

Milton (2009) also agreed the idea of exposure to language in order to learn more academic words. The assumption of how language learners could acquire vocabulary that is considered in academic level or less frequency level of vocabulary takes place during the time experiencing knowledge gaps in high frequent vocabulary through foreign language exposure in EFL classes. He claimed that in EFL lessons, words may not be learned regarding the rate of availability but acquired thematically from reading texts as well as course books used in classes and lectures.

4.2. Insights of lexical performance

To determine the students’ lexical performance; in other words, their productive vocabulary knowledge, the learners were given to write opinion paragraphs and perform speaking tasks. The outcomes of the instruments were evaluated through Vocabprofile and the percentages were commented as a whole.

The results of the present study demonstrated that the learners preferred to use vocabulary belonging to high frequency level more than low frequency level or academic level of words as a productive part of the language. These results were similar to the studies conducted by Muncie (2002), Tschirner (2004), Yüksel and Durmuşoğlu Köse (2013) and Karakoç (2016). Therefore, the outcomes of these studies in terms of the students’ use of high frequent words are parallel with the present study.

The results of the present study demonstrated that the learners preferred to use vocabulary belonging to high frequency level more than low frequency level or academic level of words as a productive part of the language. It has been claimed that the 2000th high frequent words of English may be adequate for the students (Nation, 2001). These frequency level of words may not be suitable to utilize the target language to transmit their ideas in an effective way in the academic area (Kaur & Hegelheimer, 2005). Crossley, Salsbury, and McNamara (2010) also clarified the dependence of high frequency level of words on writing through attributing to the discrepancy between the knowledge of vocabulary of mother tongue and target language. Due to the limited knowledge of vocabulary in target language compared to L1, the learners apt to utilize more vocabulary of general meaning compared to specific meaning.

Several studies have demonstrated that language learners understand, process and produce higher frequency vocabulary items well (Crossley & Salsbury, 2010; Ellis, 2002; Laufer & Goldstein, 2004). Moreover, Laufer (1991) brought out that EFL learners of higher education did not accordingly increase their productive vocabulary knowledge on the condition that there was not any systematic instruction aimed at learning vocabulary. It was underlined that the students want to implement basic, frequent, and general vocabulary in the production process. The reason why the students feel reluctant to apply low frequency words may be because of their uncertainty about the words’ usage and limited vocabulary knowledge in target language (Laufer & Nation, 1995).

Moreover, the studies related to production of academic words claimed that the language learners preferred to choose high frequency words depending on more casual manners in spite of academic manner. This preference can be explained through the hypothesis of avoidance (Laufer & Nation, 1995; Read, 2000). It means that the students do not want to use academic words. It may be derived from their desire to feel safer when they use high frequency words as they are afraid of making mistakes. Even if they have enough knowledge of academic words, they may not be sure about the usage of these words; therefore, they do not want to take risk while producing words both in writing or speaking (Laufer & Nation, 1995). Another reason may stem from the learners’ limited knowledge of academic words. These clarifications could make sense when the outcomes of academic vocabulary size in terms of productive knowledge are taken into account.
Crossley et al. (2010) and Laufer and Goldstein (2004) also presented that the subjects of their studies preferred mostly high frequency words. This situation may result from the fact that these students often face with high frequency words in their courses since their curriculum were designed as language focused in the language learning contexts. Moreover, they also claimed that the participants of their studies relied on some academic words, and it may stem from the academic reading and writing course they had.

When it was compared to present study, the participants’ use of academic words was determined as low level. Therefore, it could be said that although they had Listening, Speaking, Reading, and Writing lessons, they had no academic courses focusing on production of academic words. As a consequence of this situation, the students did not rely on academic words both in writing and in speaking. Crossley et al. (2010) promoted these interpretations claiming that language learners have a possibility to utilize the words in an effective and productive way in given tasks on the condition that they are exposed to frequency words.

4.3. Insights of lexical the interrelationship of all dimensions

The present study revealed that there were correlations between the instruments as a result of the tests applied to the participants. Firstly, the students’ size of receptive vocabulary knowledge had an effect on their depth of receptive vocabulary knowledge. Secondly, the participants’ productive vocabulary knowledge with regard to both speaking and writing were found to be related to each other as well. Lastly, the relationship between the students’ receptive and productive vocabulary knowledge demonstrated that the instruments affected each other to some extent. To explain in detail, the participants’ receptive vocabulary knowledge was correlated with the high frequency words in speaking and writing. When academic words were taken into account, the subjects’ size of academic word knowledge affected their productive academic words in writing and speaking. The other instruments were not found to be correlated with each other at a significant level. All in all, it could be reached that the students’ scores in the tests of receptive vocabulary knowledge were higher than their scores in the tasks of productive vocabulary knowledge.

Nation (1990) stated that the subjects’ lexical competence and lexical performance complement each other. That is to say, the students’ productive vocabulary knowledge includes their receptive vocabulary knowledge and expands it further. Namely, the students’ receptive vocabulary size represents their productive vocabulary size.

Crossley and Salsbury (2010) and Zareva (2007) claimed that the associations of the participants’ receptive and productive vocabulary knowledge provide learners to improve their lexical production. Because of the fact that lexical performance includes how to write a word, the meaning of it and how to utilize it in grammatical patterns and collocations (Nation, 1990), the correlation revealed in this study could be concerned as expected.

Due to the fact that receptive vocabulary knowledge requires less effort to perform compared to productive vocabulary knowledge, L2 learners’ receptive vocabulary knowledge was larger than their productive vocabulary knowledge (Laufer, 1998; Fan, 2000; Webb, 2008; Zhou, 2010).

Likewise, Webb (2005) carried out a study evaluating the students’ lexical competence and performance. The results were similar to the present research study, showing that learners’ productive vocabulary knowledge was lower than their receptive vocabulary knowledge. It could be concluded that the subjects of the study had partial productive knowledge of second language forms for the vocabulary items known receptively; yet, they did not have full knowledge of meaning and form for the words productively as much as they had receptively. He indicated that vocabulary learning in the lessons is in tendency to be receptive since the students are more familiar with receptive vocabulary activities in the
classroom. He pointed out that the other researchers stated that L1 words are acquired receptively with the help of reading and listening (Jenkins, Stein, & Wysocki, 1984; Nagy, Anderson, & Herman, 1987; Nagy & Herman, 1987) and this situation brings about greater insights in receptive vocabulary than productive vocabulary knowledge (Griffin & Harley, 1996; Mondria & Wiersma, 2004). It was also explained that one of the reasons for the difference between receptive and productive vocabulary knowledge could be derived from the participants in the study were exposed to rote learning strategies to learn new words and due to this reason they were not able to produce target words (Schmitt, 1997). This situation could be the same for the participants of the present study as well.

When it comes to investigate the learners’ receptive and productive skills in terms of speaking side, Clinten’s (2008) study suggested that although there was no significant correlation between the students’ vocabulary knowledge and oral ability, it was marked that sophistication increased with word knowledge, mostly with AWL. On the other hand, articulation rate was attached to the students’ 2000th word level knowledge. The outcomes of the current study are not similar to that research since the present study found out the relationship between the students’ vocabulary knowledge and their speaking skills. However, the present study examined the participants’ use of words in speaking rather than sophistication and articulation. Pignot-Shahov (2012) also defined that receptive knowledge means to be able to comprehend a word in its written and spoken forms whereas productive knowledge seems to be able to utilize a word accurately in a written work or speech. Therefore, it was claimed that it is useful to teach the word productively in order to learn it effectively. By this way, the students’ lexical performance may increase as much as their lexical competence. It is commonly agreed that productive vocabulary learning is substantially more challenging than receptive vocabulary learning (Schmitt, 2010).

Ultimately, the present study aimed to evaluate the general and academic lexical competence and performance of the students at the School of Foreign Languages of Kütahya Dumlupınar University, and it was obvious that vocabulary knowledge is a consistent and complicated process that needs broad examination. As a result, the current study has led the way to implement several measurements and offer a general framework on this topic.

5. Conclusions

The present study examined Turkish EFL learners’ general and academic lexical competence and performance through VLT, WAT, the writing task and the speaking task. All in all, the results indicated that the subjects of the study had large general and academic size and depth of vocabulary knowledge regarding the high scores on the vocabulary tests. Nevertheless, the productive vocabulary knowledge of the students appeared to be considerably less than their receptive vocabulary knowledge. Therefore, they could not reflect their vocabulary knowledge in their free production tasks, paragraph writing and speaking tasks. The studies carried out in the literature also pointed out that the learners’ receptive vocabulary knowledge was larger than their productive vocabulary knowledge since producing target words needed more effort than just knowing them. Apart from the difficulty of producing words, the students may not feel comfortable while speaking and writing so they can prefer high frequent words instead of low frequent and academic words to feel safe.

Furthermore, the students’ lexical competence and performance were interrelated and interdependent with each other as a result of the correlation analyses among all of the measures. Therefore, it could be stated that the more the students know the target words the more they are able to use them appropriately in their writing and speaking tasks. Eventually, it could be estimated that both general and academic vocabulary knowledge have a multi-dimensional structure and they affect each other. As a result, the
students’ exposure to learning vocabulary including both receptive and productive ones may enable their vocabulary levels to increase in language learning process.

However, there are some limitations of the study including limited number of participants and limited dimensions of vocabulary. Further studies could be conducted with more population and different dimensions of vocabulary such as lexical use and diversity.

It could be suggested that general and academic vocabulary learning and teaching for Turkish preparation classes could be revised in line with the outcomes of the current study. This revision should include conceptualizing lexical competence and performance, and integrating vocabulary dimensions, with a particular focus on academic vocabulary. By this way, the learners’ both receptive and productive vocabulary knowledge could improve to be proficient at the target language. However, not only learning opportunities but also learners’ motivation is also crucial to explore the necessary opportunities and implement them to mediate their receptive and productive knowledge (Zhang, 2012). Therefore, creating the awareness of the importance of vocabulary in language learning setting is considered as a very effective way.

6. Ethics Committee Approval

The authors confirm that ethical approval was obtained from Anadolu University (Approval Date: 13/03/2019).

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Özet

Anahtar sözcükler: Sözcüksel yeterlilik; sözcüksel performans; sözcük sayısı; sözcük derinliği; akademik sözcük bilgisi

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