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THE VOCABULARY SIZE OF TEACHER CANDIDATES AND THEIR SUCCESS IN MAJOR AREA COURSES

Öğretmen Adaylarının Kelime Dağarcığı ile Alan Derslerindeki Başarılırları¹

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Abstract

One of the foremost indicators of linguistic proficiency is attributable to target vocabulary competence when the issue is foreign language education. With this in mind, great extent of ESP instruction focuses on and deals with learning new words. Lexical items which are “learned” for a specific purpose, nevertheless, do not necessarily constitute vocabulary “known”. The items that are taken in mental lexicon by learners of a target language for a specific purpose can influence not only their proficiency in that language, but also their success in their field. That can be the case even for language teacher candidates as well. This current study initially aims at investigating whether there is a correlation between the vocabulary sizes of the teacher candidates at an ELT department in Turkey and their academic success in accordance with their exam grades on major area courses.

Keywords: Vocabulary size tests, vocabulary known, English for a specific purpose (ESP)

Özet

Yabancı dİL öğretiminde, dİL yeterlilikinin en belirgin göstergelerinden birisi hedef dile dair kelime yetkinliği olarak adedildir. Hal böyleyken, örneğin özel bir amaç doğrultusunda İngilizce öğreniminde, yenil kelime öğrenimi sürecinde odak noktasında yer alır. Öte yandan, özel bir amaç için “ögrenilen” sözcükler, illa ki “bilinen” kelimer olarak sayılamanızlar. Öğrenenlerin, dağarcıklarında özel bir amaç doğrultusunda “içelleştirildikleri” hedef dilin sözçük yapısına ait unsurlar sadece hedef dilde yetkinliklerini etkilemektede, aynı zamanda kendi alanlarındaki başarıyı da ilgilendirmektedir. Bu çalışmada, Türkiye’de bir İngilizce Öğretmenliği bölümüne okumakta olan öğretmen adaylarının kelime dağarcıkları ile alan derslerine ait sınav sonuçları arasında anlamlı bir ilişki olup olmadığını araştırılmıştır.

Anahtar kelimeler: Kelime dağarcığı sınavları, bilinen kelimer, özel amaçlı İngilizce (ESP)

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INTRODUCTION

If addressed to parents, most of the responses for the question when the most exhilarating time of communication with their children throughout their lives would be the moment that they heard simple utterances as “papa”, “mama”, “baba” or “dede”. Although it often results in a burst of emotion then, we know that it is nothing but a linguistic articulatory practice of infants. In this “canonical babbling” stage, our young discoverers try to repeat CV (C=consonant, V=vowel) syllables often twice (Guasti, 2002, p. 42), leading to some meaningful two-syllable level words.

Words have always mattered since they are the primary building blocks of communication in collaboration with some further linguistic elements. Brocha’s aphasia is only one instance to acknowledge their role for a healthy interaction, at which communication lacks content with the absence of necessary lexical items. Familiarity with the words, as for another example, definitely has a motivating impact over those who have little or no knowledge towards a target language. That is probably why learners usually focus on the lexicon. In a nutshell, language is for meaning-making and words are probably the most eligible indicators with this respect.

When the issue is the lexical competence in a target language, researchers aim to identify the capacity of learners’ mental lexicon; that is to say, all the words that a learner keeps in mind. However, the entity of the words a learner possesses is twofold: 1) vocabulary learnt, and 2) vocabulary known. The former stands for the words which are learnt for a specific or temporary purpose while the latter are taken in the mental lexicon (Altay, 2015; Altay & Dikilitaş, 2016; Nation, 2012). In a way, the words that are learned just for a certain reason function just like input. On the other hand, the words which are taken in the mental dictionary so as to be used at any time anywhere. Therefore, the vocabulary proficiency of one is highly attributable to the vocabulary known.

As seen, vocabulary learnt resembles more of input data for one. On the other hand, vocabulary that is known refers to a broader sense. In this vein, the followings are the sine qua nons of a word for Richards (1976) and Nation (2001) (as cited in McCarten, 2007) which cannot be excluded while taking in a word:

• the meaning(s) of the word,
• its spoken and written forms,
• what “word parts” it has,
• its grammatical behaviour,
• its collocations,
• its register,
• what associations it has,
• what connotations it has,
• its frequency.

Language is often regarded as a living organism as it evolves in time in accordance with its surroundings. It is not simply a body of individual words that come together to serve for a specific purpose. In other words, every language has its own habitat and they cannot be dissociated from these elements and so forth given above - hence a new word can hardly be transformed into a known word without these qualities since mental lexicon takes it in through either:
integrating it into many kinds of already existing knowledge (Schmitt, 1997), or
lexicalization: establishing a new unit for totally new and non-existing concepts (Bakken, 2006)

Briefly to say, human mind resembles a jungle in which nodes of words live together; they sometimes interact with others, but also occasionally contradict. These nodes host slots for newcomer data, or new words, only if they have some common semantic grounds. However, a new node is created when that prospective filler cannot be associated with already existing ones of other slots, which is known as lexicalization.

Cognitive science has always been concerned with the scope of human mind. Considering vocabulary known constitutes probably the most significant facet of mental lexicon, its capacity is believed to be measured through some tests with this respect. To do so, vocabulary size tests, one of such tests to determine how broad one’s mental dictionary is, mainly focuses on:

• one `sub-knowledge’ such as comprehension of meaning, production of meaning, vocabulary use, and word associations,
• learner’s total vocabulary,
• lexical items from different word frequency levels, and
• general vocabulary knowledge irrespective of learning background.

(Laufer et al., 2004)

**Vocabulary Size: Why in the spotlight?**

Determining vocabulary size draws so much interest probably because it does not only bear the qualities as an outcome but can also stand for a reason. That is to say, vocabulary capacity of one can get lower depending on certain external factors, but the very same capacity can also well refer to the underlying factor of some linguistic discrepancies of inefficiencies.

To illustrate the latter, Munson et al (2005) analyzed the phonotactic probability, wordlikeness, and nonword repetition performance of children with or without specific language impairment. The results indicated that the larger the vocabulary size of the children was, the better language productions were obtained regardless of having impairment or not. A similar study conducted by Becker (1977) acknowledged a link between vocabulary size to the achievement of disadvantaged students with low social, economic, or health qualities (cited in Baker, 1995). In a further research, Stanovich (1986) related school failure to underdeveloped phonological awareness, reading acquisition, and vocabulary growth of university students in their major area courses whose medium language of instruction was English as a foreign language.

**Research Questions**

q#1: Does a larger vocabulary size have a positive effect over the exam grades at major area courses of ELT students?

q#2: Is there any further relation between the vocabulary size and the success level of the major area courses of these teacher candidates?

q#3: What is the average vocabulary size of the prospective teachers of English?
METHODOLOGY

Participants

The findings of this research came from 119 undergraduate students who study at the Department of English Language Teaching in Kocaeli University, a state university which is to the northwest of the Turkish Republic and is very close to some other prosperous cities. English is spoken as a foreign language in the country and the participants are among the first 1/3 in terms of their success in the national placement test regarding their target language proficiency. Regarding the distribution in accordance with the level, 39 of the participants were sophomores, while 61 of the rest were juniors and the other 19 were seniors. Freshmen were excluded due to unsatisfactory major area courses that they have.

Data Collection Instruments

The instruments to attain data for the analyses were twofold: 1) Nation’s Vocabulary Size Test, and 2) Student Information System. As for the former, Paul Nation’s Vocabulary Size Tests are commonly regarded to be some accurate measurements to weigh the size of an EFL or ESL leaner’s vocabulary. 14,000 version which contains 140 multiple-choice items with ten items from each 1000 word family level was used in this study (Nation, 2012). Student Information System, on the other hand, was used to obtain statistical data over the participants’ overall success in their major area courses.

Procedure

All the participants were asked to visit myvocabularysize.com, the official website for Nation’s Vocabulary Size Test. They are monitored so as not to use any resources or references such as dictionaries. Time was not limited as the purpose is just determining the size, not the fluency or so. Still, the durations were parallel within the participants. Meanwhile, the cumulative term grades of the participants were accessed in their information system. Once the collection of test scores and school grades were over, they were compared through SPSS 15.

Data Analyses

The first type of data analysis was simple linear regression to measure the effect of vocabulary size over major area course grades. A variable might not have an effect over another; still, there can be a correlation between the two. Therefore, a correlation analysis between vocabulary size and major area course grades was conducted as well.

FINDINGS

Research Question #1

Based on the simple linear regression analysis for the whole participants, no significant equation indicating an effect of vocabulary size over participants’ academic success in their major area courses was found ($F(1, 117) = 2104, p > .150$), with an $R^2$ of .018.

The academic levels of the participants seem not to cause a significant difference in their test scores either. Grade-based values are:

Table 1: Test Score Distribution in Accordance with Academic Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>$p$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomores</td>
<td>$&gt;.788$</td>
<td>.002</td>
</tr>
<tr>
<td>Juniors</td>
<td>$&gt;.201$</td>
<td>.028</td>
</tr>
<tr>
<td>Seniors</td>
<td>$&gt;.181$</td>
<td>.097</td>
</tr>
</tbody>
</table>
The Vocabulary Size of Teacher Candidates and Their Success in Major Area Courses

Research Question #2

Based on correlation analysis, there seems not to be a significant correlation between vocabulary size and the grades of the major area courses, either \( r = .133, n = 119, p = .150 \). The grade of the participants was not a determinant here again as:

Table 2: Correlation Analysis between Vocabulary Size and the Participants’ Grades

<table>
<thead>
<tr>
<th>Sophomores</th>
<th>( r = .182, n = 39, p = .268 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juniors</td>
<td>( r = .024, n = 61, p = .856 )</td>
</tr>
<tr>
<td>Seniors</td>
<td>( r = .441, n = 19, p = .059 )</td>
</tr>
</tbody>
</table>

Research Question #3

A third research question was towards the overall vocabulary size of the participants. The mean scores indicate that an average student in the ELT department has approximately 9183 words in the mental lexicon. Therefore, they are below 10,000 words-level.

DISCUSSION

As previously stated, the initial concern of this study was to investigate any effect of vocabulary size over the academic success in their major area courses of the ELT students, who themselves are mostly EFL users and will hopefully become the teachers of English language soon. The previous studies on vocabulary size generally highlighted an impact over major area courses. However, this current study does not refer to such a result probably because English is more than a foreign or second language in this major area. In other words, students of this field are supposed to have a high proficiency in all aspects of the target language so that they can teach it in the future.

A second focus was towards any correlation between EFL teacher candidates’ vocabulary size and academic success again in their major area. Parallel to the regression results, there seems to be no significant correlation between the two and the inferences can also be generalized here, too; all the participants in this research took some university entrance and placement tests before they were subject to Nation’s vocabulary size test as well as their major area courses. Therefore, a significant difference within the participants or between their levels was not expected.

Beside these conclusions, there also seems to be some alarming facts. The overall vocabulary size of the participants was at 9,000 words-level. As for Nation (2006), the vocabulary size needed for the comprehension of various text types are as in the following table:

Table 3: Vocabulary Size Needed for the Comprehension of Various Text Types

<table>
<thead>
<tr>
<th>Texts</th>
<th>98% Coverage</th>
<th>Proper nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novels</td>
<td>9,000 word families</td>
<td>1-2%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>8,000 word families</td>
<td>5-6%</td>
</tr>
<tr>
<td>Children’s movies</td>
<td>6,000 word families</td>
<td>1.5%</td>
</tr>
<tr>
<td>Spoken English</td>
<td>7,000 word families</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

The size of ELT students might seem to be enough when compared to the table above, yet the following table highlights other remarks. The participants have a specialized area: teaching English to EFL learners. Therefore, they use English for a specific purpose and that purpose is highly based on the target language itself.
Table 4: Frequencies of Word Families and Learning Procedures

<table>
<thead>
<tr>
<th>Level</th>
<th>1,000 word family lists</th>
<th>Learning procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>High frequency</td>
<td>1,000 - 2,000</td>
<td>Reading graded readers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliberate teaching and learning</td>
</tr>
<tr>
<td>Mid-frequency</td>
<td>3,000 – 9,000</td>
<td>Reading mid-frequency readers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliberate learning</td>
</tr>
<tr>
<td>Low frequency</td>
<td>10,000 on</td>
<td>Wide reading</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialised study of a subject area</td>
</tr>
</tbody>
</table>

As given in Table 4, Nation (2006) stresses out a noteworthy issue: high frequency words at 1,000-2,000 and 3,000-9,000 word family clusters require deliberate teaching and learning; in other words, language-focused teaching and learning as he suggests. On the other hand, learners should be beyond 10,000 word-families level in order to carry out some specialized study of a subject area and a wide variety of reading texts. This is for any academic field at higher education as long as the medium language of instruction is English. Here the samples of this current study are English language teacher candidates, and thus their size should apparently be even superior. A previous study by Tanyer and Öztürk (2014) also indicates a similar result and only 5% of their participants, who are ELT teacher candidates as well, are at 10,000 vocabulary level. One further investigation by Kalajahi and Pourshahian (2012) also acknowledges the findings of this current study by suggesting no variation among the vocabulary sizes of ELT teacher candidates at different academic levels; those who have a vocabulary size over 10,000 words only make less than 30% in all four levels, which is quite a better frequency when compared to other similar studies though.

Nation (2006) also points out that an average 13-year-old native speaker knows between 10,000 and 11,000 word families, and a learner over 8,000 word families-level can basically deal with unsimplified spoken and written texts. In the previous research conducted by Stanovich (1986), the participants were from engineering, law, and medicine faculties, and their size was round 4,000 word-families level. The participants in our study seem to be doubling Stanovich’s participants in terms of their size, but are still below where they are supposed to be.

CONCLUSION AND IMPLICATIONS

Breadth of vocabulary and depth of vocabulary are two key issues which are subject to investigation to measure learners’ lexical competence. While the former focuses on the numbers of the words known, the latter focuses on broadly they are known. That is to say, tests to investigate the vocabulary size or level basically focuses on the quantity of the words in one’s mind. On the other hand, vocabulary depth handles semantic relatedness of the words; how a single lexical item is connected to many others within the same vocabulary node.

Hypothetically speaking, the analysis towards depth of vocabulary might sound more comprehensive or more reliable to measure one’s lexical competence. Still, breadth of vocabulary cannot be regarded as a less functional means of analysis. In fact, it may offer more depending on the skills to be tested or the needs of learners. To illustrate, Li and Kirby (20015) found out that both are moderately correlated by suggesting breadth of vocabulary had a stronger effect than depth of vocabulary on reading words with accurate pronunciation, reading comprehension and understanding of text. However, they also concluded that depth of vocabulary contributed to summary writing, which is a measure of deeper text processing.
The main purpose of this study was to investigate if the main course exam scores of EFL teacher candidates are correlated with their vocabulary size in English language rather than their vocabulary depth. It is because vocabulary size looks for the general vocabulary knowledge focusing on a single type of sub-knowledge such as comprehension of meaning. The participants are subject to low-frequency word family level as the content of their courses require “wide reading” and “specialised study of a subject area” as Nation (2006) entitles. Therefore, understanding what they read for their courses and their examinations is of high importance. Based on the results obtained from the vocabulary size test, the participants’ exam scores seemed to be slightly less than the expected level for a specialized study as theirs. Considering that they are the prospective teachers of English, it can be concluded that ELT departments, with all their lecturers and students, should mind the indispensable role of lexical competence more for successful understanding.

Furthermore, a vocabulary size test, which is to measure the breadth of vocabulary only, may not have revealed further types of sub-knowledge all at once. Therefore, a vocabulary depth test such as Read’s Words Associate Test (1998) can be conducted to see the depth of teacher candidates’ vocabulary knowledge. After all, exam scores of their major area courses are not only based on comprehending whatever they read, but also how they reproduced their knowledge during the exam.

As a final recommendation, a learner corpus can be conducted to observe and analyse actual vocabulary use of the ELT students. With the help of such a corpus, the word-families that their mean score indicates can be compared with those of native speakers and researchers can investigate the vocabulary gap to focus on. The learner corpus of ELT students can cover quite a lot of essential words and terminologies related to their field, which stands for an invaluable resource for any teacher candidate as well.

References


