# A Word-frequency Based Assessment of English as a Foreign Language Master One Students' Written Receptive and Productive Lexical Knowledge 


#### Abstract

: Learning an adequate knowledge of words is a prerequisite for linguistic mastery. The present study was basically carried out to quantitatively evaluate EFL Master One students' lexical knowledge. Its main objective was to assess and compare learners' receptive and productive written word knowledge as two prominent dimensions of a person's vocabulary knowledge recognised in many lexical researches. The study deployed two well-known frequency-based assessment tools. The first was the Vocabulary Size Test (VST) employed to measure the participants' abilities to recognize and comprehend meanings of forms at different frequency levels within given limited contexts. The second was the Productive Vocabulary Levels Test (PVLT) primarily used to assess the participants' abilities to retrieve and produce lexical items of varying frequency levels within diverse contexts. The two tests were taken by a randomly chosen sample of 40 first year Master One students at the Department of English at the University of Constantine 1. The results of the VST revealed that the majority of the participants' receptive vocabulary sizes ranged between 5,000 and 8,000 word families, sizes classified as mid-frequency vocabulary. The data collected from the PVLT, comparatively, revealed a poor mastery of the participants' abilities to use words productively in diverse contexts. Accordingly, the highest scores were achieved only in using the high-frequency vocabulary, and then they sharply decreased at lower frequency levels. Keywords: lexical proficiency, vocabulary receptive knowledge, vocabulary productive knowledge, frequency-levels, vocabulary size.


ملخص:
يعتبر اكتناب معرفة كافية بالمفردات شرطا أساسيا للتهكن من اللغة. وقد أجريت هذه الاراسة أساسا للتقييم الكمي للمعرفة المعجمية لدى طلبة اللغة الانجليزية كلغة أجنبية خالا سنتهم الأولى ماستر. وكانت لتقيبم ومقارنة معرفتهم بالمفردات الكامنة و المفردات المستعملة كتابيا كبعدين بارزين معترف بهما في بحوث المعجمية عدة. و عليه تم الاعتماد على اختبارين للمعرفة بالمفردات حسب درجّة تردين المدرها في اللغة. الأول، اختبار حجم المفردات ، لقياس قدرات المشاركين الكامنة على التعرف على أشكال ومعاني الكلمات على مستويات تردد مختلفة ضمن سياقات محدودة. و أما الاختبار الثاني فهو لتقييم قار اتهم على تذكر و استعمال المفردات من مستويات تردد متفاونة في سياقاتيات متنو عة. تم إجراء الاختبارين على عينة اختيرت عشو ائيا من طلبة السنة الأولى ماستر بقسم اللغة الانجليزية بجامعة قسنطينة 1. اظهرت نتائج الاختبار الاول ان أعلى حصائلّ المفردات الكامنة لاغليية المشاركين تتراوح بين5000 و 8000 عائلة مفردات ، و التي تصنف كمفردات ذات تردد متوسط في اللغة. بالمقارنة، كشفت نتائج الاختبار الثاني قدرة المشاركين جد محدودة على استعمل المفردات حيث أن أعلى النتائج المتحصل عليها كانت في استعمال المفردات ذات التردد العالي فقط ثم ينخفض أداء الأغلبية بحدة في استعمال الكلمات ذات التردد المنخفض. الكلمات المفتاحية: المعرفة المعجمية ، المعرفة بالمفردات الكامنة، المعرفة بالمفردات المستعحلة، مستوى تردد المفردات ، محصول المفردات.

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## Introduction :

In layman's terms, lexical items are the building blocks of any language. Words make up human communication and learning. Thus, attaining a satisfactory level of lexical knowledge is necessary for anyone to learn a mastery over their language, whether be it first, second or a foreign language.
Wilkins (1972, p. 111) accentuates the importance of vocabulary, as a language component, stating that: "without grammar little can be said; without vocabulary nothing can be said."

Nonetheless, it was until the last two decades that vocabulary gained renewed interest in language education research where grammar took priority over all other language components. A growing body of lexical research is currently undertaken to address such major issues as the conceptualisation of lexical knowledge, the architecture of the mental lexicon, the processes of vocabulary learning/acquisition, vocabulary teaching and assessment. In the Algerian settings, a limited repertoire of vocabulary is assumed to be a major problem that affects EFL learners' abilities to comprehend and use the target language. Consequently, the paucity of lexical knowledge remains to be a hindrance to achieve both linguistic and communicative competences. This paper aims at exploring the students' levels of vocabulary comprehension and use by means of the administration of two well-known diagnostic and proficiency vocabulary tests. Firstly, the Vocabulary Size Test (VST) was administered to measure the participants' vocabulary receptive knowledge; particularly, their abilities to recognise and comprehend words within a limited context. Secondly, the Productive Vocabulary Levels Test (PVLT) was given to assess the participants' productive vocabulary knowledge, notably their levels of proficiency in word use within various contexts. In parallel, the study also intended to make a comparison between the subjects' receptive and productive lexical knowledge.
Altogether, making an estimate of the amount of vocabulary learners know and how well they know it (proficiency), and to determine the level of vocabulary learners should concentrate on (diagnostic) is expected to yield valuable insights about strengths and weaknesses in our learners' vocabulary knowledge.

## 2. Review of the Literature

### 2.1 Major Trends in Vocabulary Research

The shift of focus towards vocabulary in the language education arena dates back to the 1980s. Such a revival of interest was motivated by computer-aided research that led to the creation of linguistic corpora where large amounts of both spoken and written language samples are collected and stored in electronic format reflecting a wide variety of language uses in authentic contexts, a sort of linguistic data that did not exist before (Decarrico, 2001). Corpora currently inform research endeavours in a multiplicity of language related disciplines; for instance, they have applications in lexicography, linguistic descriptions, software programming, language teaching and learning; and, particularly, vocabulary research. The prevailing corpora used in applied linguistic research include the British National Corpus (BNC), comprising more than 100 million words; The Bank of English Corpus (COBUILD), with more than 300 million words; The Cambridge International Corpus (CIC), containing more than 100 million words and The Corpus of the Contemporary American English

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(COCA), involving 450 million words. In vocabulary research, corpora-based data have been primarily used to analyse the lexical patterns and features of lexical items, word collocations, terminology and lexicography research and practice, compiling word frequency lists, and vocabulary assessment (Webb \& Paribakht, 2015). Furthermore, contributions from other disciplines including psychology, cognition, and neurology have broadened the scope of vocabulary research and stimulated scholars to further enquire the processes and factors influencing vocabulary learning and acquisition.

### 2.2. The Complexity of the Concept 'Word'

In spite of the increasing emphasis laid upon vocabulary, several issues remain vigorously debated among researchers and no consensus has been reached to decipher the intricacies of lexical knowledge; in particular, the concept of 'word' (what is a word?), and the miscellaneous nature of word knowledge (what is meant by knowing a word?). (Schmitt, 2000; Nation, 2001; Daller, Milton \& Daller, 2007, Ciarlo \& Giannoni, 2012).
One major obstacle to defining a word is the multiplicity of its properties: orthographic, morphological, phonological, syntactic, semantic, pragmatic, and that the word is an idiosyncratic component in the language. Therefore, several terms have been coined to refer to the concept as an independent linguistic unit; they included, lexeme (Scmitt, 2000), a lexical item, vocabulary item or simply item (Carter, 1998). (McCarthy, O'keeffee \& Walsh, 2010, p. VII) explained that, Words are more than mere individual containers with meaning. They exist in a complex matrix which links them to morphemes (prefixes and suffixes), other meanings (synonyms and antonyms), and other words (the words they are likely to occur with or associated with), grammar patterns, multi-word units.

By the same token, lexical units were divided into two types: single words (eg. book), and multi-word units, also referred to as formulaic sequences (e.g. firefighter). Nation (2000, pp. 10-11) further classified single words into four main categories: tokens, lemmas, types and word families. First, 'Tokens', also known as running words, refer to the total sum of word forms involved in a spoken or written text. To determine the number of tokens in a text, every individual word is counted even if it occurs more than once. For example, the sentence "the boy brought the broken toy" contains six tokens, even though the word "the" occurs twice. Second, 'Types' is a category where the number of different words in a text are counted, so that a word which occurs more than once is not counted. Thus, the sentence "the boy brought the broken toy" contains five types (the determiner 'the' is counted only once). Third, a 'lemma' involves a headword (a base word or root) and a set of its inflected forms. For instance, the lemma of the verb work would include works, worked, and working. However, the inflections should not change the meaning of the
base word, that is all of the items classified under the same lemma should belong to the same part of speech. Hence, in the given example, the word "workable" (which is an adjective) does not belong to the lemma work (which is a verb). Fourth, a 'word family' is made up of headword (a base word), its inflections and a variety of its derived forms. For example, the word use (a headword), with its inflections: uses, used and using as well as its derivations: useful, usage, which are closely related in form and meaning, can be classified under the same word family.

### 2.3. Aspects and Dimensions of Word Knowledge

A critical issue that has been thoroughly investigated is the multidimensional nature of lexical knowledge, or what is meant by knowing a word. Accordingly, knowing a word is not limited to knowing its form and meaning but a variety of aspects and degrees. Nation (2000) devised three dimensions of lexical knowledge involving nine components that make up an individual's lexical competence. They embrace: word form (spoken form, written form and word parts), word meaning (form and meaning, concepts and referents, and associations), and word use (grammatical functions, collocations, and constraints on use). The components in each dimension are equally divided into receptive knowledge and productive knowledge. Receptive vocabulary knowledge is linked to the listening and reading language learning skills, and it has to do with the ability to "perceiving the form of a word while listening or reading and retrieving its meaning." On the other hand, productive vocabulary knowledge is related to the productive language learning skills and means "wanting to express a meaning through speaking and writing and retrieving and producing the appropriate spoken or written word form." Nation (2000, p. 38). The terms 'passive knowledge' and 'active knowledge' are used as synonyms for receptive and productive respectively in other references. (Meara, 1990; Corson, 1995; Laufer, 1998). Correspondingly, Meara (1996) suggested another taxonomy dividing lexical knowledge into breadth, depth and accessibility. Vocabulary breadth, also termed 'vocabulary size', refers to the total number of words a person knows, or how big a learner's lexicon is. Vocabulary depth refers to how much a person knows about a given word. Accessibility refers to the extent to which a person is capable of automatically accessing vocabulary items when $\mathrm{s} /$ he wants to use them.

### 2.4. Vocabulary Size

Vocabulary size is regarded as a key aspect to consider in research on vocabulary learning, teaching and assessment. Schmitt (2000, pp. 2-3) depicted common estimates of the size of the English language with a very wide range: "from $(400,000$ to 600,000$)$ words (Claiborne, 1983, p. 5), from a half million to over 2 million (Crystal, 1988, p. 32), about 1 million (Nurnberg \&

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Rosenblum, 1977, p. 11), and 200,000 words in common use although adding technical and scientific terms would stretch the total into the millions (Bryson, 1990)". The fluctuation in the given records is justified by the issue of what to consider as a word to be a counting unit. As a result, a common attempt to provide a fairly accurate estimate was by choosing word families instead of words as a counting unit. (Goulden, Nation and Read, 1990). Recent studies have shown that a vocabulary size of an adult educated native speaker of English is around 20,000 word families (Schmitt, 2000; Nation, 2000). Other studies have also concluded that young native speakers of English expand their vocabulary repertoires by adding around 1,000 word families a year from the age of two or three. This implies that a five year native speaker beginning school would have a vocabulary size of about 4,000 to 5,000 word families (Nation \& Waring, 1997; Nation 2000). Nation (2006) supposed that research on the amount of vocabulary required for receptive use reveals that learners require about 6,000 word families to read novels written for teenagers, to watch movies, and to take part in friendly-conversations. Around 8,000 to 9,000 words are required to read newspapers, novels and some academic texts. Read (2000, p. 82) pointed out that estimating an individual's vocabulary size is one facet of research into vocabulary knowledge development at different ages and its role in reading comprehension. Likewise, Nation (2006) considered that vocabulary size measurement is crucial for planning, diagnosis and research. Moreover, testing vocabulary size can be a significant contributor to research on language proficiency as well as the outcomes of experimental enquiries on language learning.

## 3. Methodology

### 3.1. Participants

A total of 40 EFL first year Master's students enrolled at the Department of English at the University of Constantine 1, who have been studying the English language for around 10-11 years, took the two vocabulary tests used as the basic research tools to attain the objectives of the study given in two separate sessions scheduled between November and December 2016.

### 3.2. Instruments

Among the vocabulary assessment paradigms, there exist a battery of tests, each of which has a particular design, objective and test items depending on the aspect of word knowledge it focuses on. Likewise, the criteria of validity and reliability should be taken into account. Nation (2000, p. 560) emphasized that a sound vocabulary test ought to involve a fair amount of items (up to 30 as a minimum for a reliable test); it is sufficiently easy to administer, mark and interpret. Further, it is expected to yield valuable implications for vocabulary teaching and learning. In this study, the focus was on measuring the size of the
subjects' lexical receptive knowledge (their ability to recognise and comprehend words) using the Vocabulary Size Test (VST), as well as their lexical productive knowledge (their ability to use vocabulary items adequately in diverse contexts). The tests were delivered on print. The time allocated for each test was 45 minutes for the receptive knowledge test (VST) and 60 minutes for the productive knowledge test (PVLT).

### 3.2.1. The Vocabulary Size Test (VST)

The Vocabulary Size Test was mainly designed to measure an individual's total vocabulary size in the form of a multiple-choice meaning-recognition format considering word families as a counting unit. The test measures knowledge of written word form, the form-meaning connection, and, to a smaller degree, concept knowledge (Nation, 2006). It is a corpus-based test that involves multiple sections each of which representing a word frequency level: Highfrequency, mid-frequency and low-frequency words. Ciarlo and Giannoni (2012, p. 41) noted that "such a type of test has been extensively used for nonnative speakers whose proficiency is limited." In the present study, the 14,000 version was used; it was designed by Beglar and Nation (2007) containing 140 multiple-choice items with ten items from each 1,000 word frequency level in a total of fourteen: $1,000,2,000,3,000,4,000,5,000,6,000$, $7,000,8,000,9,000,10,000,11,000,12,000,13,000$ and 14,000 . This means that every word represents 100 word families. The participant's total score (the total number of correct choices) needs to be multiplied by 100 to calculate their overall receptive vocabulary size. The test takers are required to select the best definition of each word form out of four choices provided in short contexts. The time allocated for the test was around 45 minutes ( 20 seconds per word). Below, is an example of a word belonging to the 12th 1000 frequency list:

REFECTORY: we met in the refectory.
a. room for eating.
b. office where legal papers can be signed.
c. room for several people to sleep in.
d. room with glass walls for growing plants.

Considering the frequency factor, ciarlo and Giannoni (2012) indicated that it plays a key role in both receptive and productive lexical knowledge, and that the more the frequent the word is, the easier it will be acquired. Similarly, lexical research suggested that it is convenient to divide vocabulary into three main levels. (Nation, 2006) classified them into: High-frequency vocabulary of about 2,000 words, a mid-frequency vocabulary of an additional 7,000 words leading to a total of 9,000 , and the remaining is a low-frequency vocabulary of at least 10,000 words but probably higher.

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Nation (2000) indicated that high-frequency words are usually short, comprising few syllables and whose meaning is less likely to be restrained like words with lower frequency. On the other hand, lower frequency words are those which do not occur very often in the language (rarely encountered and have less semantic relations with other words); they mainly embrace: proper nouns, technical words specific to particular subject areas and make up about $5 \%$ of an academic text.

### 3.2.2 The Productive Vocabulary Levels Test (PVLT)

At first, this test was developed by Paul Nation at Victoria University of Wellington in New Zealand in the early 1980s as a simple means to design programmes of vocabulary teaching and learning. Read (2000, p. 118) argued that "in the absence of any more sophisticated measure, it has been used by researchers who needed an estimate of the vocabulary size of their non-nativespeaking subjects." Similarly, Meara (1996; p. 38) referred to it as "the nearest thing we have to a standard test in vocabulary." It was basically used as a frequency-based diagnostic tool to measure written receptive vocabulary knowledge at four frequency levels $2,000,3,000,4,000$ and 10,000 , hence the name of the test. However, it was later revised, republished, and underwent tests of validation (Read, 1988; Schmitt, Schmitt \& Clapham, 2001). In the present study, the same tool devised by Laufer and Nation (1999), a revised version, which measures the written productive vocabulary knowledge at five frequency level ranges, was used. It is called the Productive Vocabulary Levels Test (PVLT). It is a fill-in-the-gap format test that comprises five sections, each of which representing a frequency level range and considering word families as a counting unit: 2,000 level, 2,000 to 3,000 levels, 3,000 to 5,000 levels, the University Word List (UWL), and the 5,000 to 10,000 levels. The University Word List involves a specialised vocabulary for second language learners to undertake academic study in English. It comprises about 570 word families that do not belong to the 2,000 most frequent words but show up fairly reasonably in diverse academic texts; it is often called sub-technical vocabulary and usually involves formal vocabulary (Nation, 2000). Each section of the test is made up of eighteen (18) unrelated sentences with missing words within, but with the initial letters provided. The participants are asked to fill in the gaps with the appropriate words. The aforementioned test designers set a threshold for each section that every participant has to exceed to be said to have a full mastery of the word frequency level it represents, an adequate ability to use words productively at different frequency levels in different contexts. Below, is a sample of Section five: 5,000-10,000 frequency levels extracted from the original test manuscript:

1. The baby is wet. Her dia $\qquad$ needs changing
2. If your lips are sore, try lip sal........., not medicine.
3. Second year university students in the USA are called soph.....
4. Her favourite flowers were or $\qquad$
5. Three children were taken hos. $\qquad$
The time allocated for the test was about 60 minutes ( 40 seconds per word)

## 4. Results and Discussion

This section presents the data gathered from the administration of the two aforementioned tests whose analysis would expectedly address the objectives set at the beginning of the paper. (See Appendices I and II).

### 4.1. Analysis of the Scores Obtained in the Vocabulary Size Test (VST)

Table 1. Maximum Frequency Levels Attained by the Subjects Based on Their Total Scores

| Word level | $\begin{array}{r} \text { 2k- } \\ 3 \mathrm{k} \end{array}$ | $\begin{array}{r} \text { 3k- } \\ 4 \mathrm{k} \end{array}$ | $\begin{array}{r} 4 k- \\ 5 k \end{array}$ | $\begin{array}{r} 5 \mathrm{k}- \\ 6 \mathrm{k} \end{array}$ | $\begin{gathered} \text { 6k- } \\ 7 k \end{gathered}$ | $\begin{gathered} 7 \mathbf{k}- \\ \mathbf{8 k} \end{gathered}$ | $\begin{array}{r} \text { 8k- } \\ 9 \mathrm{k} \end{array}$ | $\begin{gathered} \text { 9k- } \\ \text { 1k } \end{gathered}$ | $\begin{array}{r} 10 \mathrm{k} \\ \text { } \\ 11 \mathrm{k} \end{array}$ | 12 $\mathrm{k}-$ 14 k |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | 1 | 3 | 6 | 7 | 7 | 10 | 4 | 1 | 1 | 0 |
| Percentag | 2.5 | 7.5 | 15 | 17.5 | 17.5 | 25 | 10 | 2.5 | 2.5 | 0 |
| e\% | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% |

(K: kilo $=1000$ word; $\mathbf{N}$ : the number of subjects; $\%$ : percentage of the subjects)

Table 1 illustrates a division of the maximum word frequency levels attained by the subjects based on the calculation of their total vocabulary size scores. Such a sort of data is assumed to reveal the subjects' ability level to recognise word meanings in restricted contexts. As dictated by the designers of the test Nation and Beglar (2007), the total size of the subject is calculated by multiplying the total number of the correct choices they made by 100 , with disregard to the mistaken choices which are interpreted as 'blind guesses' (Nation, 2000). As it can be noticed, the highest score was 102 (x100) which means that the subject' overall score is 10,200 word families. At the other end of the spectrum, the lowest score was 24 (x100) which implies that her total vocabulary size is 2,400 word families, which can be considered as an unexpectedly very low score. The subject has seemingly a deficient lexical knowledge though she has the same academic level and the same number of years spent in studying English. In the middle of the spectrum, the scores start to increase at level 4,000 to reach an apex of the level $7,000-8,000$ attained by $25 \%$ of the subjects. Ultimately, the scores start to decrease to stand at 10,000 levels as a maximum score. In essence, the maximum average sizes of vocabulary that the participants are assumed able of using receptively ranges

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between 5,000 and 8,000 word families which is categorised as a midfrequency vocabulary.

Table 2. Divisions of Word Frequency Types Attained by the Subjects

| Frequency Level | N | $\%$ |
| :---: | :---: | :---: |
| High Frequency <br> (2000 Words) | 1 | $2.5 \%$ |
| Mid- Frequency <br> (3000-9000 Words) | 38 | $95 \%$ |
| Low- Frequency <br> (10000 Words and more) | 1 | $2.5 \%$ |

Table 2 comprises three main divisions of the word frequency types categorised by Nation (2000) and which of each was reached by the students according to their scores. The reliance on the frequency factor, as a basic aspect of lexical knowledge, is assumed to provide insights about the fluctuation in the subjects' abilities to cope with various tasks and activities in the target language. The table reveals that only ( $2.5 \%$ ) of the respondents did not exceed the high-frequency level $(2,000)$, which we view as a remarkably limited lexical repertoire that would inevitably hinder coping with a wide range of activities in the target language. the vast majority of the participants scored between 3,000 and 9,000 (the scores' climax came between 6,000 and 8,000 word frequency levels), which is categorised as a mid-frequency vocabulary type. At this level, for receptive language use, according to Nation (2006), an individual might sufficiently engage in activities like reading novels written for teenagers, watching movies, reading newspapers, and reading some academic texts. Only one subject $(2.5 \%)$ attained the low-frequency level ( 10,000 word families and on) which is deemed a satisfactorily proficient level that enables the subject to successfully engage in a rich diversity of activities in the target language.

### 4.2. Analysis of the Scores Obtained in the Productive Vocabulary Test (PVLT)

Table 3. The Scores of the Subjects Achieved at Each Section of Frequency Levels

| word Levels | $2 k$ <br> Level | $2 \mathrm{k}-3 \mathrm{k}$ | 3k-5k | UWL | 5k-10k |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Means | 12.1 | 10.35 | 7 | 9.77 | $\mathbf{3 . 4 2}$ |


| The mean <br> percentages | $66.94 \%$ | $57.5 \%$ | $\mathbf{3 8 . 8 8 \%}$ | $54.30 \%$ | $19.02 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

Table 3 depicts the results of the performance of the participants on the Productive Vocabulary Levels Test (PVLT) intended to assess their abilities to appropriately use lexical items at different frequency levels in diverse contexts (active lexical knowledge). The table shows the means of the scores of all the 40 participants at each level of frequency (out of 18 correct answers in each of the five sections). In section one (high-frequency words), the 2,000 most frequent word families, the mean of was 12.1 out 18 correct answers ( $66.94 \%$ of the correct answers). In section two 2,000 to 3,000 most frequent words, the mean of the scores decreased to 10.35 out of $18(57.5 \%$ of the total correct answers). In section three, frequency levels ranging between 3,000 and 5,000 most frequent words, the mean of the scores decreased again to 7 out of 18 correct answers ( $38.88 \%$ of the total). In the section of University Word List (UWL) the mean of the scores relatively increased to 9.77 out of 18 correct answers $(9.77 \%)$. This might be justified by the fact that the words on this list are not merely selected according to their frequency in the entire corpus; but, rather it is a list of a specialized vocabulary, particularly that occurring in academic texts (Nation, 2000). In section five, frequency levels between 5,000 and 10,000 , the mean of the scores decreased to a minimum of 3.42 out of 18 correct answers ( $19.02 \%$ of the total). The decrease of the scores at each successive section may be explained by the degree of the frequency represented by the section, for it moves from the higher levels of frequency to the lower ones. As it can be seen, the most the frequent the words on the list were, the higher the scores of the participants had been achieved. Another key point is that the estimates demonstrated in Table 3 revealed that the maximum frequency level of the subjects' abilities to use the words productively ranged between 2,000 and 3,000 (only high-frequency vocabulary) . Finally, their performance noticeably deteriorated at the levels above 3,000 and on (mid and high-frequency levels).

Table 4. Subjects Scoring Above/Below Levels Thresholds

| Levels Thresholds |  | 2000 Levels | $\begin{aligned} & \mathbf{2 0 0 0} \\ & \mathbf{3 0 0 0} \end{aligned}$ | $\begin{gathered} \mathbf{3 0 0 0} \\ \mathbf{5 0 0 0} \end{gathered}$ | UWL | $\begin{aligned} & \hline 5000- \\ & 10000 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Threshold |  | 83\% | 83\% | 83\% | 83\% | 80\% |
| Above threshold | N | 11 | 5 | 0 | 2 | 0 |
|  | \% | 27.5 | 12.5 | 0 | 5 | 0 |
| Below | N | 29 | 35 | 40 | 38 | 40 |

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| threshold | $\%$ | 72.5 | 87.5 | 100 | 95 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Table 4 dichotomises the scores obtained by of the participants in each section according to the threshold set by the test instructions (Laufer and Nation, 1999) to determine whether the subject has successfully passed the test and is having an adequate productive lexical mastery over the represented level. In Section One ( 2,000 level), $27.5 \%$ of the sample ( 11 among 40 of the participants) scored above the set threshold, while $72.5 \%$ scored below. In section two, from 3,000-5,000 frequency levels, $12.5 \%$ of the respondents exceeded the threshold, whereas $87.5 \%$ of the participants scored below. In Section Three ( 3,000 to 5,000 levels), none of the participants crossed the threshold. In the UWL section, only $05 \%$ of the respondents crossed the threshold, while a quasi majority, $95 \%$ of the respondents, did not reach the determined value to pass. Repeatedly, none of the participants crossed the threshold of section five $(5,000$ to 10,000 levels). Given these points, the productive lexical knowledge of the participants is markedly meagre : The thresholds of only two sections (high frequency word lists) are crossed with very low percentages, while they totally failed in the three remaining sections as the percentages at section three and five come to nought. Additionally, the correspondence between the scores obtained from the PVLT with those obtained in the VST is fully compatible. To put it differently, as the scores of the participants were ranked from the highest to the lowest in both tests, a slight fluctuation in the performance was noticed: some subjects did well in the VST but worse in the PVLT, while the opposite happened to others.

## 5. Conclusion

The findings of this study were assumed to offer some insights about the subjects' (Master One EFL students) strengths and weaknesses in receptive and productive lexical knowledge which are deemed primordial aspects of vocabulary knowledge and play a pivotal role in lexical proficiency. The performance of the subjects on the two vocabulary tests provided useful descriptive and diagnostic information.
The assessment of the subjects' receptive vocabulary knowledge-their ability to recognise and comprehend words at different frequency levels- their performance in the VST-revealed that the ultimate vocabulary sizes of the majority of the participants ranged between 5,000 and 8,000 word families, which belong to the mid-frequency vocabulary, a level that enables an individual to cope with such activities as reading novels written for teenagers, to watch movies and to take part in friendly conversations. Only one exception attained the highest size of 10,200 word families, and one did not exceed a size of 2,400. On the other hand, the data collected from the PVLT, that purports to measure the participants' productive lexical knowledge, or their abilities to use
words appropriately enough at different levels, revealed that their productive mastery of vocabulary is comparatively lower. Important to realise, the best levels of their lexical productive mastery is 3,000 word families (only highfrequency vocabulary), then it decreased at the successive levels which, strictly speaking, were considered as a poor knowledge.
In the final analysis, the participants' abilities to perceive the form of a word and retrieving its meaning, albeit with no full compatibility, are higher than their abilities to express a meaning and retrieve the appropriate form in diverse context. Equally important, a meticulous attention should be devoted to aid the learners attain better lexical proficiency levels, and hence better academic achievement.

## References

1- Carter, R. (1998). Vocabulary: Applied Linguistic Perspectives. (2 ${ }^{\text {nd }}$ Ed). London: Routledge.
2- Corson, D. (1995). Using English Words. Dordrecht: Kluwer Academic Publishers.
3- Decarrico, J. S. (2001). Vocabulary Learning and Teaching. In M. CelceMurcia (Ed). Teaching English as a Second of Foreign Language (pp. 285299). Boston, MA: Heinle \& Heinle.

4- Daller, H., Milton, J., Treffers-Daller, J. (2007). Modelling and Assessing Vocabulary Knowledge. Cambridge: Cambridge University Press.
5- Giannoni, D.S. \& Ciarlo, C. (2012). Measuring L2 Receptive and Productive Vocabulary Knowledge. Language Studies Working Papers, 4(20403461), 37-45.

6- Goulden, R., Nation, P., \& Read, J. (1990). How Large can a Receptive Vocabulary Be?, Applied Linguistics, 11, 341-362.
7- Laufer, B. (1998). The Development of Passive and Active Vocabulary in Second Language: Same or Different?, Applied Linguistics, 19, 255-272.
8- Laufer, B., \& Nation, P. (1999). A Vocabulary Size Test of Controlled Productive Ability. Language Testing, 16(1), 36-55.
9- McCarthy, M., O’Keeffe, A., \& Walsh, S. (2010). Vocabulary Matrix Understanding, Learning, Teaching. Hampshire: Heinle, Cengage Learning.
10- Meara, P. (1990). A Note on Passive Vocabulary. Second Language Research, 6(2), 150-154.
11- Meara, P. (1996). The Dimensions of Lexical Competence. In G. Brown, K. Malmkjaer, \& J. Williams (Eds). Performance and Competence in Second Language Acquisition (pp. 53-52). Cambridge: Cambridge University Press. 12- Nation, P., \& Waring, R. (1997). Vocabulary Size, Text Coverage and Word Lists. In N. Schmitt \& M. McCarthy (Eds.), Vocabulary: Description, Acquisition and Pedagogy. Cambridge: Cambridge University Press.

## A Word-frequency Based Assessment of English as a Foreign Language Master One Students' Written Receptive and Productive Lexical Knowledge

13- Nation, I. S. P. (2000). Learning Vocabulary in Another Language. Cambridge: Cambridge University Press
14- Nation, I. S. P. (2006). How Large a Vocabulary is Needed for Reading and Listening? Canadian Modern Language Review, 63(1), 59-82.
15- Nation, P. \& Beglar, D. (2007). A Vocabulary Size Test. The Language Teacher, 31(7). 9-13.
16- Read, J. (1988). Measuring the Vocabulary Knowledge of Second Language Learners. RELC Journal, 19(2), 12-25.
17- Read, J. (2000). Assessing Vocabulary. Cambridge: Cambridge University Press.
18-Schmitt, N. (2000). Vocabulary in Language Teaching. Cambridge: Cambridge University Press.
19- Schmitt, N., Schmitt, D., \& Clapham, C. (2001). Developing and Exploring the Behaviour of Two New Versions of the Vocabulary Levels Test. Language Testing, 18(1), 55-88.
20- Webb, S., \& Paribakht, T. S. (2015). What Is the Relationship Between the Lexical Profile of Test Items and Performance on a Standardized English Proficiency Test? English for Specific Purposes, 38, 34-43.
21- Wilkins, D. A. (1972). Linguistics in Language Teaching. London: Edward Arnold.

## Appendices

## Appendix I

Table of the Scores of the 40 Participants in the VST Ranked from the Highest to the Lowest score

| N | Full name | Age | Gender | Level | Correct answers | Total size |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Subject \#1 | 23 | M | M1 | 102 | 10200 |
| 2 | Subject \#2 | 24 | M | M1 | 91 | 9100 |
| 3 | Subject \#3 | 22 | F | M1 | 87 | 8700 |
| 4 | Subject \#4 | 23 | F | M1 | 81 | 8100 |
| 5 | Subject \#5 | 22 | F | M1 | 81 | 8100 |
| 6 | Subject \#6 | 23 | F | M1 | 81 | 8100 |
| 7 | Subject \#7 | 22 | F | M1 | 79 | 7900 |
| 8 | Subject \#8 | 22 | F | M1 | 76 | 7600 |
| 9 | Subject \#9 | 22 | F | M1 | 76 | 7600 |
| 10 | Subject \#10 | 21 | F | M1 | 76 | 7600 |
| 11 | Subject \#11 | 23 | F | M1 | 75 | 7500 |
| 12 | Subject \#12 | 23 | F | M1 | 74 | 7400 |
| 13 | Subject \#13 | 22 | F | M1 | 73 | 7300 |
| 14 | Subject \#14 | 23 | F | M1 | 73 | 7300 |

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| 15 | Subject \#15 | 22 | M | M1 | 71 | 7100 |
| :--- | :--- | :--- | :---: | :---: | :---: | :--- |
| 16 | Subject \#16 | 22 | M | M1 | 70 | 7000 |
| 17 | Subject \#17 | 22 | F | M1 | 68 | 6800 |
| 18 | Subject \#18 | 22 | F | M1 | 65 | 6500 |
| 19 | Subject \#19 | 23 | F | M1 | 65 | 6500 |
| 20 | Subject \#20 | 22 | F | M1 | 65 | 6500 |
| 21 | Subject \#21 | 23 | F | M1 | 65 | 6500 |
| 22 | Subject \#22 | 22 | F | M1 | 64 | 6400 |
| 23 | Subject \#23 | 22 | F | M1 | 63 | 6300 |
| 24 | Subject \#24 | 23 | F | M1 | 60 | 6000 |
| 25 | Subject \#25 | 23 | F | M1 | 59 | 5900 |
| 26 | Subject \#26 | 23 | F | M1 | 58 | 5800 |
| 27 | Subject \#27 | 22 | F | M1 | 57 | 5700 |
| 28 | Subject \#28 | 24 | F | M1 | 56 | 5600 |
| 29 | Subject \#29 | 22 | F | M1 | 56 | 5600 |
| 30 | Subject \#30 | 22 | F | M1 | 55 | 5500 |
| 31 | Subject \#31 | 22 | F | M1 | 49 | 4900 |
| 32 | Subject \#32 | 22 | F | M1 | 46 | 4600 |
| 33 | Subject \#33 | 22 | F | M1 | 45 | 4500 |
| 34 | Subject \#34 | 22 | F | M1 | 45 | 4500 |
| 35 | Subject \#35 | 22 | F | M1 | 44 | 4400 |
| 36 | Subject \#36 | 22 | F | M1 | 44 | 4400 |
| 37 | Subject \#37 | 22 | F | M1 | 36 | 3600 |
| 38 | Subject \#38 | 22 | F | M1 | 34 | 3400 |
| 39 | Subject \#39 | 23 | F | M1 | 33 | 3300 |
| 40 | Subject \#40 | 22 | F | M1 | 24 | 2400 |
| A | M 19 |  |  |  |  |  |

Appendix II
Table of the Scores of the the Same 40 Participants in PVLT.

| N | subject | $\begin{gathered} \mathbf{A g} \\ \mathbf{e} \end{gathered}$ | Gende <br> r | Leve I | $\begin{aligned} & \mathbf{2} \\ & \mathbf{k} \end{aligned}$ | $\begin{aligned} & \text { 2k- } \\ & \text { 3k } \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & \mathbf{k} \end{aligned}$ | $\begin{gathered} \mathbf{U W} \\ \mathbf{L} \end{gathered}$ | $\begin{aligned} & \text { 5k- } \\ & \text { 10k } \end{aligned}$ | $\underset{L}{\text { TOTA }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | subject \#1 | 23 | M | M1 | 16 | 16 | 11 | 13 | 10 | 66 |
| 2 | subject \#2 | 24 | M | M1 | 16 | 13 | 13 | 15 | 10 | 67 |
| 3 | subject \#3 | 22 | F | M1 | 15 | 14 | 7 | 15 | 5 | 57 |
| 4 | subject \#4 | 23 | F | M1 | 13 | 10 | 4 | 13 | 1 | 66 |
| 5 | subject \#5 | 22 | F | M1 | 14 | 10 | 7 | 12 | 4 | 67 |
| 6 | subject \#6 | 23 | F | M1 | 14 | 10 | 10 | 10 | 7 | 56 |

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| 7 | subject \#7 | 22 | F | M1 | 14 | 9 | 10 | 9 | 4 | 41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | subject \#8 | 22 | F | M1 | 13 | 12 | 7 | 11 | 5 | 47 |
| 9 | subject \#9 | 22 | F | M1 | 13 | 13 | 5 | 11 | 3 | 51 |
| 1 0 | subject <br> \#10 | 21 | F | M1 | 19 | 14 | 12 | 14 | 6 | 46 |
| 1 1 | subject <br> \#11 | 23 | F | M1 | 12 | 13 | 8 | 14 | 3 | 48 |
| 1 2 | subject \#12 | 23 | F | M1 | 13 | 16 | 11 | 14 | 10 | 45 |
| 1 3 | subject <br> \#13 | 22 | F | M1 | 15 | 15 | 10 | 14 | 8 | 65 |
| 1 4 | subject <br> \#14 | 23 | F | M1 | 15 | 18 | 8 | 14 | 6 | 50 |
| 1 5 | $\begin{gathered} \text { subject } \\ \# 15 \end{gathered}$ | 22 | M | M1 | 11 | 14 | 11 | 12 | 5 | 64 |
| 1 6 | subject $\# 16$ | 22 | M | M1 | 10 | 13 | 10 | 11 | 2 | 62 |
| 1 <br> 7 | subject \#17 | 22 | F | M1 | 15 | 14 | 11 | 11 | 3 | 61 |
| 1 8 | subject \#18 | 22 | F | M1 | 15 | 13 | 10 | 12 | 5 | 53 |
| 1 9 | $\begin{gathered} \text { subject } \\ \# 19 \end{gathered}$ | 23 | F | M1 | 14 | 12 | 8 | 9 | 4 | 46 |
| $\begin{aligned} & 2 \\ & 0 \end{aligned}$ | subject <br> \#20 | 22 | F | M1 | 16 | 15 | 10 | 10 | 4 | 54 |
| 2 1 | subject <br> \#21 | 23 | F | M1 | 16 | 11 | 6 | 8 | 1 | 55 |
| 2 <br> 2 | subject \#22 | 22 | F | M1 | 14 | 12 | 9 | 10 | 5 | 47 |
| 2 <br> 3 | subject \#23 | 22 | F | M1 | 9 | 9 | 4 | 3 | 1 | 55 |
| 2 4 | subject \#24 | 23 | F | M1 | 11 | 6 | 4 | 7 | 1 | 42 |
| 2 5 | subject \#25 | 23 | F | M1 | 19 | 13 | 12 | 12 | 6 | 50 |
| 2 6 | subject \#26 | 23 | F | M1 | 8 | 7 | 3 | 5 | 1 | 26 |
| $\begin{aligned} & 2 \\ & 7 \end{aligned}$ | $\begin{gathered} \text { subject } \\ \# 27 \end{gathered}$ | 22 | F | M1 | 12 | 8 | 3 | 6 | 3 | 29 |
| 2 8 | subject \#28 | 24 | F | M1 | 7 | 2 | 4 | 7 | 1 | 62 |


| 2 <br> 9 | subject \#29 | 22 | F | M1 | 12 | 7 | 4 | 10 | 3 | 24 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 <br> 0 | subject \#30 | 22 | F | M1 | 11 | 5 | 5 | 9 | 1 | 32 |
| 3 <br> 1 | subject \#31 | 22 | F | M1 | 7 | 9 | 5 | 6 | 2 | 21 |
| 3 <br> 2 | subject \#32 | 22 | F | M1 | 8 | 6 | 7 | 11 | 1 | 36 |
| 3 <br> 3 | subject \#33 | 22 | F | M1 | 9 | 10 | 4 | 9 | 0 | 31 |
| 3 <br> 4 | subject \#34 | 22 | F | M1 | 7 | 7 | 0 | 7 | 0 | 29 |
| 3 5 | subject \#35 | 22 | F | M1 | 11 | 4 | 4 | 8 | 1 | 33 |
| 3 6 | subject \#36 | 22 | F | M1 | 10 | 10 | 7 | 12 | 3 | 32 |
| $\begin{aligned} & 3 \\ & 7 \end{aligned}$ | subject \#37 | 22 | F | M1 | 10 | 9 | 6 | 6 | 0 | 21 |
| $\begin{aligned} & 3 \\ & 8 \end{aligned}$ | subject \#38 | 22 | F | M1 | 9 | 6 | 4 | 5 | 1 | 28 |
| $\begin{aligned} & 3 \\ & 9 \\ & \hline \end{aligned}$ | subject \#39 | 23 | F | M1 | 1 | 1 | 1 | 1 | 0 | 42 |
| 4 0 | subject \#40 | 22 | F | M1 | 10 | 8 | 5 | 5 | 1 | 31 |

