

Growth Vocabulary Size of Some College English Language Students

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Abstract

This study is an attempt to measure the growth of vocabulary size of some undergraduate students majoring English language. Forty five students were selected randomly from English department/third year at the College of Basic Education/Misan University. Vocabulary Size Test developed by Paul Nation was selected to test the students. The Students were received this test (140 items) twice at the beginning and ending of one academic year. The results indicated that there is no significant growth of high, mid, and low vocabulary size found during the period of testing.

نمو حجم المفردات لبعض طلبة كلية تخصص لغة الانكليزية

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هذه الدراسة هي محاولة لقياس نمو حجم المفردات لبعض طلبة البكالوريوس تخصص لغة انكليزية. تم اختبار خمس وأربعون طالب عشوائيا من قسم اللغة الانكليزية/المرحلة الثالثة في كلية التربية الذي طور من قبل الأستاذ (Vocabulary Size Test) (VST) الأساسية/جامعة ميسان. اختير اختبار باول نيشن لاختبار الطلبة. اجري الاختبار والذي يتألف من (١٤٠ فقره) على الطلبة مرتين في بداية وفي نهاية سنة اكاديمية واحدة. أشارت النتائج بان لا يوجد فارق معنوي في نمو المفردات الانكليزية بأنواعها العالية التردد والمتوسطة التردد والواطئة التردد خلال فترة الاختبار.

1.Introduction

Vocabulary has been identified as one of the major problems that the learners faced in learning English as a foreign language as they are trying to read and write academic discourse (Shaw,1991).

According to Nation (1983, cited in Schmitt,2001:55) vocabulary is an essential block of language ,this idea makes sense to be able to measure the knowledge of learner's vocabulary. This is equally true whether interesting is focused in

pedagogical assessment in classrooms or in language acquisition research. Vocabulary can be seen as central to English language teaching because without sufficient vocabulary students cannot understand others or express their own ideas.

In their research Laufer & Sim (1985) found that the vocabulary knowledge is the best gauge of whether a text will be understood or not, research indicates that it is necessary for the learners to know at least 95% of the words of a text in order to be able to guess or gain adequate comprehension of it. Nation (2001) also added that the comprehension and incidental vocabulary learning through reading are likely to increase if the percentage of known words in a text is 98%. If 95% coverage is required, vocabulary size of most frequent 4000 word families may be necessary to comprehend novels and newspapers, if the 98% coverage is required, the 8000 word families may be required to understand newspapers and knowing 900 word families to understand novels (Nation,2006 cited in Webb,& Nation 2008:2).

Measuring learner's vocabulary size has a long history because vocabulary size is seen to be an important aspect of language knowledge that is essential for effective use of the language. A Vocabulary Size Test (VST) for example, is a test designed as a proficiency measure of total vocabulary size for learners of English as a first , second or foreign language (Nguyen & Nation,2011:86). A Vocabulary Size Test (VST) can be a very useful contributor to research on language proficiency and the effect of experimental interventions on language learning. A Vocabulary Size Test (VST) is very useful for diagnostic purposes specially where learners have reading problems. These problems can be caused by a lack of vocabulary knowledge, a lack of grammatical knowledge, poor reading skill, and inadequate background knowledge (Nation,2012).

A Vocabulary Size Test (VST) is used to measure the written receptive vocabulary knowledge, it means the kind of knowledge needed for reading. Vocabulary knowledge, when reading, is supported by background knowledge, reading skill, and textual context. Only a small number of items can be sampled from each vocabulary level, because the goal of the test is to measure total vocabulary size. The test uses sampling from frequency levels based on the British National Corpus word family lists, but the test do not reliably measure how well each level is known, because there are not enough items at each level (Nation & Beglar,2007:11).

Vocabulary size tests are very important, and this importance lies in the following points: firstly, vocabulary is important when designing programmes for learning. It is difficult to recognize what new words learners should focus on in their language learning programmes if we do not know how many words

they know. It is also very difficult to decide what level of graded reading they should do and whether they are ready to read unsimplified texts (Nguyen & Nation,2011:86-87).

Secondly, vocabulary size tests are important for learners when their programmes are taught in English medium system especially when their English is the second language, in this case vocabulary size tests can be used as good tool to realize the second language learners progressing in comparison with native speakers in their vocabulary growth. Thirdly, vocabulary size tests are regarded as useful diagnostic measures when learners are having problems with skills like reading and writing. Sometimes poor vocabulary knowledge is the case of poor reading or writing. Vocabulary size tests can help a teacher to decide if vocabulary size is a problem of poor performance of a particular language skill, for example a research by Ruffel (2008) with six years-old non-native speakers of English living in an English speaking country, the researcher found that poor reading performance was usually not the result of an adequate vocabulary size but was caused by other factors. Fourthly, vocabulary size tests are very important for researchers who use them as a tool with studies based on factor analysis and when trying to divide learners, the case of study, into levels of proficiency (Ibid:87-88).

To identify the growth of learner's vocabulary size and to know how the learners have enough vocabulary to be able to perform certain tasks ,such as reading a newspaper, novel, watching movies, and to take part in a conversations, this study is an attempt to measure the growth of vocabulary size of some university undergraduate students majoring English language using the Vocabulary Size Test (VST) developed by Paul Nation.

This study is important to the teachers and to the English departments policy. It helps the teachers to recognize the points of weak and strong of the learners' language proficiency .It is important in designing and selecting the appropriate textbooks for the learners of English as a foreign language. It is hoped to be as a guide for syllabus designers, extensive reading, and vocabulary teaching.

2. Background Knowledge

The research on vocabulary size measurement goes back to the 1890. Kirkpatrick (1891) read through a dictionary in order to find out how many words he knew. At the beginning of 1900 several researchers listed the vocabulary size growth of youth children. These studies continued until the children were around three years old when their growth vocabulary size and the amount of their spoken language run so much that observational measurement was no longer feasible. These studies depended on output as the source of data

for measuring vocabulary size based on the unstable assumption that we produce anything we know (Nation,2012).

Vocabulary size is considered by first, second and foreign language researchers to be of great significance in language competence (Grabe, 1991;Frederiksen,1982) and vocabulary testing is now receiving the attention it deserves, with studies of the construct validity of some vocabulary tests (Chapelle,1994;Perkins and Linville,1987), examination of the effectiveness of particular item types (Henning, 1991;Laufer and Nation, 1995), and a comprehensive examination of the field of vocabulary testing in preparation (Cited in Laufer&Nation,1999:33).

There is a great value in gaining knowledge about specific parts of language learners' proficiency, it can be used effectively for diagnostic, placement and curriculum-design purpose (Ibid:34).

A variety of vocabulary measures is useful diagnostically to find out whether particular aspects of vocabulary knowledge are being neglected in a course or not. For example, learners who score high marks in a Vocabulary Levels Test ,but do not use their full richness of vocabulary in writing, may need to improve designing tasks and encouragement to help them engage more easily on what they know. (Ibid)

There is a great value in having considerable planning of vocabulary measures to draw on research on vocabulary learning. A study by Joe (1994) for example, on vocabulary learning from retelling tasks used different measures of the same vocabulary and as a result was able to measure degrees of strength of knowledge of the words the subject of the study and relate this to the conditions under which they were learned (Ibid:34-35).

Initial studies using the test mention that undergraduate non-native speakers of non-European background successfully coping with study at a university English speaking have a vocabulary size around 5,000-6,000 word families. Non-native speaking PhD students have a round a 9,000 word vocabulary (Nation & Beglar,2007:12).

To realize what learners should be doing to increase their vocabulary size, we need to relate the vocabulary size scores to the three main frequency levels of high-frequency, mid-frequency, and low-frequency words (Nation,2012).

Table (1)

Frequency of Vocabulary According to the Word Families

Level	1000 word family lists	Learning procedures
High frequency	1000-2000	Reading graded readers Deliberate teaching and learning
Mid-frequency	3000-9000	Reading mid-frequency readers Deliberate learning
Low-frequency	10,000 on	Wide reading Specialized study of a subject area

Nation & Beglar (2007:10) Pointed out that the words to be tested are sampled from British National Corpus word family lists which now go up to the 25th 1000 (25,000 word family lists).The British National Corpus word lists (BNC) are lists of word families developed for two main purposes.

1.The lists are designed to be used in the Range and AntWordProfiler, (AntWordProfiler is a freeware tool for profiling vocabulary level and complexity of texts), programs to analyze the vocabulary load of texts.

2.The lists are designed to be used as complete as possible lists of the high-frequency 1000-2000,mid-frequency 3000-9000 words, also cover 16000 low frequency words which include the more common low-frequency words.

Laufer (1989) stated the importance of having a large enough vocabulary to get coverage of 95% of the words in a text. If a learner has a vocabulary of only one English word and that word was *the*, the most frequent word in English, in this case the learner's one word vocabulary would provide coverage of 7% of the items in a written text. Counting of what the proportion of the word *the* in the page, we would find that it counted nearly seven out of every one hundred words. If you choose what words to learn, you can get a good coverage of the words on a page. For example ,if you chose the most frequent 1,000 words of English, which includes words like *put*, *end*, *difficult*, *come*, and *material*, you

would cover about 75% of the words on a page. If you chose to learn 1,000 of the least frequent words of English, you might be lucky to cover .03% of the words on a page. The following table lists typical coverage figures for different vocabulary sizes, assuming that words are learned in order of frequency. The figures are based on Carroll, Davies and Richman (1971) .

Table (2) shows that to get around 95% coverage of a written academic text, it is necessary to have a vocabulary size of over 5,000 word forms, which translated to about 3,000 word families if inflections and closely related derivatives are included in a word family (Nation,1993:119).

Table (2)

Typical Coverage Figures of Different Vocabulary Sizes Based on Carroll, Davies and Richman

Number of words	Coverage
1	7%
10	25%
100	50%
1000	75%
2000	81%
5000	89%
43,831	99%
86,741	100%

Laufer (1989) pointed out that the learners whose vocabulary size gave them more than 95% coverage of the words in a text were able to reach an adequate level of comprehension, whereas those whose vocabulary was not large enough to reach 95% coverage did not reach an adequate level of comprehension. Laufer also tried to find out what the effect of academic ability (knowledge of the world) was on reading comprehension. Laufer found that if vocabulary size was smaller than 3,000 words (3,000 words provides 95% coverage), academic ability did not compensate for it to help comprehension. It is necessary to be familiar with general academic vocabulary that is common to many academic disciplines, not only with the high frequency words of English. A list of such vocabulary includes items such as *assume*, *constant*, and *individual*. This list of

around 800 headwords combines four independent studies and provides a substantial 8% coverage of the words in academic texts. Also, this list assumes knowledge of the most frequent 2,000 words of areas such as philosophy, history, law, biology, and accountancy. The importance of such a vocabulary is shown in the case related to ratio of unknown to known words. A reader will meet 1 unknown word in approximately every 8 known words with a vocabulary of 2,000, whereas a reader will meet 1 unknown word in approximately every 20 known words (95% coverage) with a vocabulary of 2,000 words plus the 800 of the academic word list (Cited in Nation, 1993:119-120).

3. Methodology

3.1 Research Question and Hypothesis

The study is an attempt to answer the following research question :

Do students achieve growth of vocabulary size during one academic year? The study hypothesizes that there is no significant growth of undergraduate students' vocabulary size during one academic year.

3.2 Participants

To answer the research questions a group of forty five English language students are chosen randomly from the third year of English department/ Basic Education College/Misan University.

3.3 Instrument

The Vocabulary Size Test (VST) developed by Paul Nation / Victoria University of Wellington is used to test the participants. The test is found at <http://www.lex tutor.ca/>. The test is freely available and can be used for teachers and researchers for different purposes. The test is available in hard copy and computerized format. The test consists of 140 multiple choice items, each 10 items from 140 items are based on a frequency count of word families in the British National Corpus (BNC) (Nguyen & Nation, 2011:89).

The following is an example taken from fifth 1000 level:

1. miniture: It is a **miniature**..

- a. a very small thing of its kind
- b. an instrument for looking at very small objects
- c. a very small living creature
- d. a small line to join letters in handwriting

(Nation & Beglar, 2007:11)

The test takers are required to select the best definition or translation of each word from four choices. Each 10 items from 140 represented 1000 word level, so the 140 items represent 14000 word family levels. Each test word is put in a simple non-defining context. There are 10 items from each 1,000 word frequency level. A learner's score needs to be multiplied by 100 because each

item in the test represents 100 word families. If a learner had a score of 9/10 on a particular level, this indicates that a learners would have gained knowledge of 900/100 word families from that level (Nation & Beglar, 2007:12,Nguyen & Nation.2011:89).

It is important to know that the Vocabulary Size Test (VST) measures knowledge of word families. This means that if a learner is able to demonstrate knowledge of the headword in the test, there is an assumption that he has receptive knowledge of the reset of what that word family (Webb & Nation,2008:2). The following examples represent the word families for *time* and *jump* in the first 1000 word level:

TIME	JUMP
TIMER	JUMPS
TIMES	JUMPING
TIMELESS	JUMPED
TIMELY	JUMPY
TIMING	
TIMED	
UNTIMED	

3.3 Research procedures

Students were tested twice, one as a pre-test was given at the beginning of the academic year 2014-2015,and the second is a post-test was given at the ending of the same year. To obtain measures of the period of growth, SPSS program (Paired Sample Statistical measurement) was employed. The results of the tests are divided and grouped into four sections , one is for the whole test and others depending on the three main frequency levels, high, mid, and low frequency. The total of high frequency level of pre-test was measured with the total of the post-test of high frequency level (range from 1000-2000).The total of the pre-test of mid frequency level was measured with the total of the post-test of mid frequency level (range from 3000-9000).The total of the pre-test of low frequency level was measured with the total of the posttest of low frequency level (range from 1000-and above).

4.Results and discussion

Table (3) depicts the paired sample measurement of the Vocabulary Size Test (VST) which was run at the beginning and ending of the one academic year to compare between the two means pre-test and post-test. The study indicates that the mean score of the pre-test of high frequency vocabulary was 1.137 with standard deviation 335.94 whereas the mean of post-test of high frequency vocabulary was 1.137 with standard deviation 310.53. The descriptive statistics

of high frequency vocabulary indicates that there is no significant growth found, the calculated value was 0.101 which is less than the standardized.

The comparison of the means of pre-test and post-test of mid frequency vocabulary indicates that the mean score of pre-test was 2.288 with standard deviation 662.05 and for post-test the mean score was 2.044 with standard deviation 788.13. The study stated that there is no significant change found between the two means. The calculated value was 1.819 which is less than the standardized value (2.014) .

Table (3) also indicates that for the test of mid frequency vocabulary the mean of pre-test was 2.282 with standard deviation 662.02 whereas for post-test the mean was calculated 2.044 with standard deviation 788.13. The study indicates that there was no significant change found between the two tests. The calculated value for mid frequency vocabulary test was 1.819 which less than the standardized value (2.014).

The other side of the test is testing the low frequency vocabulary. The study indicates that there was no significant difference between the pre-test and post-test. The mean of pre-test was calculated 1.180 with standard deviation (388,01 and the mean for posttest was 1.188 with standard deviation (397.49). The calculated value was (0.126) which is less than the standardized value (2.126).

Table (3)

Paired Sample Test Results

	Std. Deviation	Mean	N	T Value		df	Statistical Significant
				Calculated Value	Standardized Value		
Pair1 Complete Pre-test Test – Complete Post-test Test	1021.248	4.597	45	1.843	2.014	44	No significant
	1128.546	4.315					
Pair 2 Pre-test High Frequency Vocabulary –Post-test High Frequency Vocabulary	335.94	1.137		.101 0			No significant
	310.53	1.137					
Pair 3 Pre-test Mid Frequency Vocabulary- Post-test Mid Frequency Vocabulary	662.05	2.282		1.819			No significant
	788.13	2.044					
Pair 4 Pre-test Low Frequency Vocabulary- Post-test Low Frequency	388.01	1.180		0.126			No significant
	397.49	1.188					

Vocabulary							
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Finally, the result of the complete test of 140 items indicate that there was no significant growth of vocabulary size gained by undergraduate students during an academic year, the paired sample measurement of the two means stated that the pre-test calculated 4.597 with standard deviation 1021.248 and the post-test score calculated 4.315 with standard deviation 1128.546.

Table (3) depicts the SPSS measurement of high, mid, low and the total of test of the frequency vocabulary growth which is run at the beginning and at the ending of one academic year. The descriptive statistics indicates that there is no significant growth of vocabulary size was found between the pre-test and post-test, in this case the null hypothesis is accepted.

As stated earlier, the present study intends to investigate whether there is any growth of English vocabulary size of some undergraduate students during one academic year. Research indicates that the high frequency test of vocabulary size is limited to the 1,000 score which can be translated to 1000 word families, according to findings by Laufer and Sim (1985) and Nation (2001,2006) this amount is not adequate to guess words in context because it does not achieve coverage 95% that makes reading a text easy. So, in this case learners will find difficult to comprehend tasks like novels and newspapers. Learner still in need to work on learning words from this list in order to reach the required frequency level to cover such tasks. Study also indicates that the mid frequency level still around 2000 word family lists, there is no growth vocabulary size found during one year. Both mid frequency level and low frequency level still under the percentage of amount words that make learners able to comprehend tasks, like novels, newspapers and take part in conversations, by another words most frequent vocabulary size high and mid for learners did not reach to the coverage that makes reading tasks easy to comprehend for them because most frequent vocabulary size of learners is still less than 4000 word families required to coverage 95% of a text. Considering 98% coverage of a text, the complete test results indicates that the vocabulary size of the learners is under 8000 word families required for comprehension written texts. If learners vocabulary size is in this level they will face difficult to understand academic texts as a whole, so learners need more opportunities to support their ability for learning vocabulary with different frequency levels especially high and mid frequency levels. Reading graded, deliberate teaching and learning, and wide reading provide opportunities for the repetition of vocabulary and this in turn will increase the learners' vocabulary size.

5.Conclusion

The researcher attributed the negative results to the following reasons:

1.Foreign language students depend on two important aspects for language acquisition. First; academic study and second language acquisition through communication with the surrounding environment, especially at the countries which have no stable foreign environment which can provide a good opportunity for learners. Iraq is among such countries. Losing foreign environment reduces learners' opportunity to increase the vocabulary size which can lead to negative results if they run such test.

2.Some of the academic programmes taught at the third stage ,the research subject, are not different from the previous stages (the first and the second stages) since there is no new vocabulary can increase the students' vocabulary size , so it is not elevated to the wanted needs, e.g. conversation and grammar curriculum. Students cannot gain a new vocabulary from them since both of them are depend on the same techniques of teaching and have the identical linguistic context for all stages; students accustomed and find no linguistic growth in vocabulary.

3.Some of the academic curriculum do not fulfill the purpose which is prepared for it. Literature books ,for instance especially novels and dramas do not involve an extensive study which can enrich English students with new vocabulary especially mid and low frequented. It restricted on a very limited novels. So in this case it will never accomplish the desired goal which is enriches the student with vocabulary knowledge, that is why we see the English student, the research topic, disable to solve a lot of the Vocabulary Size Test (VST) items .

4.One of the reasons which lead to no-existing of a significant change in vocabulary size during the period of testing is that the students have no familiarity with vocabulary which can qualify him to answer the items of Vocabulary Size Test (VST), especially the mid and low frequented vocabulary. The researcher noticed that the programs taught in English department at the college of Basic Education are comprising a very meager amount of such kind of vocabulary.

5.We can conclude the cause why there is no achieving of a growth of vocabulary size for students is lack of ability to apply such kind of test on the English students as a foreign language, specifically the students who run this test. It's unfair to equate the student, the subject of study, with mother tongue students for being a huge linguistic knowledge difference between them considering the size of vocabulary acquired.

6.Among the reasons, no gaining of a growth of vocabulary size during the period of testing is that the students have boring feeling to perform the test. Especially the test consists of 140 items. Also students have no seriousness to do the test correctly, they believe that this test will reflect no academic marks.

6. Recommendations

This study has worked within a part of time, this means the growth of vocabulary size for one academic year. The finding may serve as a basis of using the Vocabulary Size Test (VST) for four academic years in order to cover the whole academic programmes related to English language. This may be worth to recognize the vocabulary size required for each year depending on the results of each level of the test (14 levels).

In the event of performing a test to measure the level of growth of vocabulary size of English students, it is commend to consider the high level which is reliable due to having items which are the most frequented for the learners as a foreign language, the research subject.

So as to make the test suitable one for the group of learners, it must first ensure that how many words that English students, who want to run this test on them, need to know to do his task then open the opportunity for the experts to prepare an educational programs and choosing the appropriate procedures that stimulate the learners ability to increase their vocabulary size. These programs can fulfill the purposes then choose the suitable test which is go along with the size of vocabulary where learner can acquire through the period of learning. It is unreasonable to apply a test on the students beyond their educational level or contain items for a high level students. In spite of a test done with a specific group of students, it is impossible to consider it as a common and apply it on the students at one educational foundation so it must deal with those students with privacy depending on the accordance between the organized programmes and the goal aspired to it.

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