

## **Investigating Non-English Specialization First Year University Students' English Vocabulary Sizes Using Vocabulary Size Test**

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### *Abstract*

Vocabulary is an important element of language proficiency, and acquisition of an extensive vocabulary should be a goal for every language learner (Nation, 2008). As language teachers, it is important that we incorporate a focus on vocabulary into language courses, but in order to do so it is helpful to have some knowledge of students' current vocabulary level (Beglar, 2010). The vocabulary size test (VST) was developed by Nations and Beglar (2007) to measure the vocabulary size of the students. It is meant to test vocabulary proficiency rather than specific diagnostic of levels at which students may have a lack of vocabulary. This paper presents how to identify the vocabulary sizes of non-English specialization students' English Vocabulary in Meiktila University, 2019-2020 Academic Year. According to the results, the highest vocabulary obtained by a student is 6,200 and the lowest one is 2,200. The result shows that Day students have much more vocabulary than UDE students.

**Key words:** VST, Meiktila University, Non-English Specialization, Day and UDE students

### **Introduction**

Vocabulary is an important element of language proficiency, and acquisition of an extensive vocabulary should be a goal for every language learner (Nation, 2008). Nation divides language learning into four equal parts or strands: meaning-focused input and output, Language-focused learning and fluency development. They can be implemented to help a second language learner in all aspects of language learning with vocabulary an important characteristic in all four strands. Meaning-focused input includes learning while listening or speaking in which the learner has a 98% of the running words. The higher a learner's comprehension level of vocabulary the more they can benefit. Language-focused learning involves studying specific aspects of the language like vocabulary. Thus, the study of vocabulary in the language-focused learning can benefit the other strands including meaning-focused input. The remaining two strands: meaning-focused output and fluency development are more successful both in study and practicality with a high or improving comprehension of vocabulary. Nation describes simplified texts or easy readers as a method for students to improve their level of vocabulary comprehension.

Vocabulary will determine what level of reading materials can be used in class (Hu & Nation, 2000), and many other decisions regarding teaching materials. Teachers aim to build students' vocabulary and most language courses feature some focus on vocabulary (Nation, 2001). Having decided to include a vocabulary component however, teachers are faced

with the difficult decision of what vocabulary to include. Should there be

a focus on the General Service List of vocabulary (West, 1953) which has proved its reliability over time, or

should teachers concentrate on developing a more academic vocabulary (Coxhead, 2011), and assume that students know the most basic vocabulary? In order to answer this question, we need a test of our students' current vocabulary level, and one such test is the Vocabulary Size Test (VST) developed by Paul Nation and David Beglar (2007).

This paper tries to identify the vocabulary sizes of UDE and Day Students and make a comparison between the two groups.

### **Literature Review**

British linguist David Wilkins, in underscoring the importance of vocabulary knowledge, stated the following:

"Without grammar very little can be conveyed, without vocabulary nothing can be conveyed." (1972, p. 111)

More recently, Schmitt (2008) highlighted the consensus among researchers that vocabulary development is a crucial part of mastering a second or foreign language, augmenting Anderson and Freebody's (1981) emphasis that word knowledge is a potent predictor of "a variety of indices of linguistic ability" (p. 77).

Various studies over the years have demonstrated the reciprocal relationship between vocabulary knowledge and competency in specific language skills:

- 1) Reading comprehension (Beck, McKeown, & Kucan, 2002; Graves, 2000; Baker, Simmons, & Kameenui, 1995)
- 2) Writing ability (Llach & Gallego, 2009; Laufer & Nation, 1995)
- 3) Listening comprehension (Milton, Wade, & Hopkins, 2010; Staehr, 2009)
- 4) Oral competence (Oya, Manalo, & Greenwood, 2009; Koizumi, 2005; Nomura, 2004)

Schmitt and Meara (1997) categorised vocabulary knowledge into three broad dimensions – form, meaning and use, while Henriksen (1999), in tandem with the position that vocabulary knowledge is multidimensional, suggested that vocabulary knowledge consists of three components: 1) partial-to-precise knowledge (varying degrees of understanding), 2) depth-of-knowledge (demonstrating word knowledge's multifaceted nature), and 3) receptive-productive dimension (an individual's comprehension and production abilities).

Fundamentally, vocabulary knowledge is comprised of two forms: receptive and productive. Receptive vocabulary knowledge consists of words that we know when we see or hear them, whereas words that we use appropriately when we speak or write are classified as productive vocabulary knowledge (Lehr, Osborn, & Hiebert, 2004).

Despite research acknowledging the multidimensionality of word knowledge, many vocabulary tests still emphasise the form-meaning link. Admittedly, words are primarily units that represent meanings and the objective of vocabulary learning is, foremost, to acquire a mental database of meaningful words that can in turn aid in the execution of activities such as reading in the target language. However, tests that focus solely on the form-meaning link remain assessments for receptive vocabulary knowledge or size, and do not reveal the test-taker's production ability.

It is vital to bear in mind that vocabulary tests are created for different purposes and each is designed to be useful for specific aims. For instance, to estimate learners' receptive vocabulary size prior to a reading programme for the purpose of text selection, or to measure learners' receptive and productive abilities pre- and post-intervention in order to gauge the effectiveness of a particular method for overall lexical development.

The VST (Nation & Beglar, 2007) was designed to provide a reliable, accurate and comprehensive measure of a learner's receptive vocabulary size from the first 1,000 to the 14th 1,000 word families of the English language (Nation & Beglar, *ibid.*). The initial version of the test was developed by Nation (1983).

According to Laufer and Goldstein (2004), size tests are useful for admission purposes as well as more efficient placements in language learning programmes. More importantly, measures of receptive

vocabulary size are essential in reading programmes to help ensure text suitability. Reading materials chosen for the purpose of language learning or progression of knowledge in the target language should correspond to a learner's linguistic ability as the use of materials that are far too easy is unlikely to yield any progress while exposure to materials that are too complex may consequently intimidate and demotivate the learner (Morano, 2004).

## Theoretical Background

There is a 14,000 version containing 140 multiple-choice items, with 10 items from each 1000 word family level. A learner's total score needs to be multiplied by 100 to get their total receptive vocabulary size.

There are two more recent parallel 20,000 versions each containing 100 multiple choice items. A learner's total score needs to be multiplied by 200 to get their total receptive vocabulary size. The two forms have been tested for their equivalence.

The Vocabulary Size Test is designed to measure both first language and second language learners' written receptive vocabulary size in English.

The test measures knowledge of written word form, the form-meaning connection, and to a smaller degree concept knowledge. The test measures largely decontextualised knowledge of the word although the tested word appears in a single non-defining context in the test.

Users of the test need to be clear what the test is measuring and not measuring. It is measuring written receptive vocabulary knowledge, that is the vocabulary knowledge required for reading. It is not measuring listening vocabulary size, or the vocabulary knowledge needed for speaking and writing. It is also not a measure of reading skill, because although vocabulary size is a critical factor in reading, it is only a part of the reading skill. Because the test is a measure of *receptive* vocabulary size, a test-taker's score provides little indication of how well these words could be used in speaking and writing.

Using Read and Chapelle's (2001) framework, the Vocabulary Size Test is a discrete, selective, relatively context-independent vocabulary test presented in a multiplechoice format. The test is available in monolingual and bilingual versions testing up to the 20<sup>th</sup> 1000 word level. Test-takers are required to select the best definition or translation of each word from four choices. The test is available in hard copy and computerised formats.

*Inferences:* Although the tested words are presented in simple non-defining contexts, it is essentially following a trait-definition of vocabulary which means that vocabulary knowledge is tested independently from contexts of use. At the item level,

the test measures receptive knowledge of a written word form. At the test level it provides an estimate of total vocabulary size where vocabulary knowledge is considered as including only single words (not multiword units) and vocabulary size does not include proper nouns, transparent compounds, marginal words like *um*, *er*, *gee gosh*, and abbreviations. It does not measure the ability to distinguish homonyms and homographs.

*Uses:* For instructional purposes the results can be used to guide syllabus design, extensive reading, and vocabulary instruction. For research purposes, it can be used a measure of total receptive written vocabulary size for both native and non-native speakers.

*Impacts:* If it is used as intended, it is a relatively low stakes test for learners. One consequence may be that it substantially underestimates the vocabulary size of learners who are not motivated to perform to the best of their ability, especially if they are judged to be low achievers within their education system. This could result in faulty instructional decisions being made about their vocabulary learning needs, and thus the test may need to administered orally to such students on a one-to-one basis. More generally, the discrete, context-independent nature of the test format may encourage the study of isolated words.

#### *Washback*

The Vocabulary Size Test is primarily a test of decontextualised receptive knowledge of written vocabulary. Such a test could encourage the decontextualised learning of vocabulary. Such learning is to be encouraged, because (1) decontextualised learning using word cards or flash card programs is highly efficient (Nation, 2001: 297-299, and (2) such learning results in both explicit and implicit knowledge (Elgort, 2011).

#### *Writing the choices*

The distractors are the same part of speech as the correct answer, and in most cases the distractors are the meanings of words from around the same 1000 word frequency level as the correct answer.

59. emir: We saw the <emir>.

- a. bird with two long curved tail feathers  
[peacock]
- b. woman who cares for other people's children in eastern countries [amah}
- c. Middle Eastern chief with power in his own land [emir]
- d. house made from blocks of ice  
[igloo]

Non-meaning clues such as the length of the choice, and general versus specific choices have been avoided and have been checked in piloting.

The occurrence of the correct answers is roughly spread evenly across the four choices of *a*, *b*, *c*, *d*.

## Using the Vocabulary Size Test

### *Administration of the test*

The test is a measure of knowledge not fluency, and so enough time should be given to complete the test and allow learners to ponder over each item. It typically takes around 40 minutes to sit the 140 item test, and around 30 minutes for the 100 item tests.

The validity of any test depends strongly on how seriously learners sit the test. If they simply skip through it while playing with their cell phones, the results will be meaningless. For some learners, it may be necessary to administer the test on a one-to-one basis. This type of administration can include providing help by pronouncing unfamiliar words for the test-taker, encouraging them, and giving them feedback on already completed items. For some learners, a one-to-one administration of the test can double the score that they got on a group-administered test.

The test is suitable for computer-based delivery and scoring.

## Research Methodology

The participants in the study were 110 students (62 males and 48 females) who were non-English first year UDE and Day students of Meiktila University, 2019-2020 Academic Year. The age range of the students was from 17 to 21. All of the students were native speaker of Myanmar. The UDE students were majoring in Geography, Philosophy, Oriental Studies, and Psychology. Day students were science students majoring in Physics. All students had at least ten years of formal education in English in Myanmar from primary schools to university. The entry requirements were slightly different for each major so there were slight differences between classes in terms of matriculation marks.

## Data Collection Procedures

To estimate students' receptive vocabulary knowledge, Nation and Beglar's (2007) VST was used. The test is based on the spoken portion of the British National Corpus (BNC), ordered by word frequency and grouped into 1,000 words bands up to the 20,000 word level. For this research, however, only the first 8,000 word families were tested, measured with 80 items, each representing knowledge of 100 words. Although VST monolingual version was used, interpretation was provided as a bilingual version.

**Data analysis and data interpretation**

**Table 1: Male and Female Day and UDE students**

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	62	56.4	56.4	56.4
	Female	48	43.6	43.6	100.0
	Total	110	100.0	100.0	

The 80 items from the first 8,000 level of the VST were analysed. There were 62 male and 48 female students in the study. They were 31 male and 24 female Day students and so did UDE students. Male students are 56.4 percent and female students are 43.6 percent.

**Table 2: The age range of the students**

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	45	40.9	40.9	40.9
	18	40	36.4	36.4	77.3
	19	17	15.5	15.5	92.7
	20	7	6.4	6.4	99.1
	21	1	.9	.9	100.0
Total		110	100.0	100.0	

The age range of the students is from 17 to 21. The largest age group is 17 and 40.9 percent. The smallest is only 1 and the age is 21.

**Table 3: The age range of Day students**

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	33	60.0	60.0	60.0
	18	20	36.4	36.4	96.4
	19	1	1.8	1.8	98.2
	20	1	1.8	1.8	100.0
Total		55	100.0	100.0	

The age range of Day students is from 17 to 20. There is only 1 student who is 19 and so is 20. The rest are 17 and 18: 17 is the largest.

**Table 4: Vocabulary range of Day students**

Vocabulary Range					
		Frequency	Percent	Valid Percent	Cumulative Percent
	29.00	1	1.8	1.8	1.8
	30.00	2	3.6	3.6	5.5
	31.00	1	1.8	1.8	7.3
	33.00	2	3.6	3.6	10.9
	35.00	2	3.6	3.6	14.5
	36.00	1	1.8	1.8	16.4
	37.00	4	7.3	7.3	23.6
	38.00	1	1.8	1.8	25.5
	39.00	3	5.5	5.5	30.9
	40.00	6	10.9	10.9	41.8
	41.00	1	1.8	1.8	43.6
	42.00	2	3.6	3.6	47.3
	43.00	1	1.8	1.8	49.1
	44.00	1	1.8	1.8	50.9
	45.00	3	5.5	5.5	56.4
	47.00	1	1.8	1.8	58.2
	48.00	2	3.6	3.6	61.8
	50.00	3	5.5	5.5	67.3
	55.00	4	7.3	7.3	74.5
	56.00	1	1.8	1.8	76.4
	57.00	1	1.8	1.8	78.2
	58.00	2	3.6	3.6	81.8
	59.00	3	5.5	5.5	87.3
	60.00	3	5.5	5.5	92.7
	61.00	3	5.5	5.5	98.2
	62.00	1	1.8	1.8	100.0
Total		55	100.0	100.0	

From the table 4, the vocabulary range of Day students is from 2,900 to 6,200. The lowest score of 2,900 is obtained by 1 student of the participants and the highest score of 6,200 is achieved by also 1 student. There are 6 students who have 4,000 word families, which is the highest frequency.

**Table 5: The age range of UDE students**

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
17	12	21.8	21.8	21.8
18	20	36.4	36.4	58.2
19	16	29.1	29.1	87.3
20	6	10.9	10.9	98.2
21	1	1.8	1.8	100.0
Total	55	100.0	100.0	

The age range of UDE students is from 17 to 21. There is only 1 student who is 21. The age of 17 is the largest as Day students.

**Table 6: Vocabulary range of UDE students**

Vocabulary Range				
	Frequency	Percent	Valid Percent	Cumulative Percent
22.00	1	1.8	1.8	1.8
24.00	2	3.6	3.6	5.5
25.00	1	1.8	1.8	7.3
27.00	2	3.6	3.6	10.9
28.00	6	10.9	10.9	21.8
29.00	4	7.3	7.3	29.1
30.00	4	7.3	7.3	36.4
31.00	3	5.5	5.5	41.8
32.00	6	10.9	10.9	52.7
33.00	3	5.5	5.5	58.2
34.00	4	7.3	7.3	65.5
35.00	6	10.9	10.9	76.4
36.00	2	3.6	3.6	80.0
39.00	4	7.3	7.3	87.3
40.00	3	5.5	5.5	92.7
41.00	1	1.8	1.8	94.5
47.00	1	1.8	1.8	96.4
54.00	1	1.8	1.8	98.2
55.00	1	1.8	1.8	100.0
Total	55	100.0	100.0	

From the table 6, the vocabulary range of UDE students is from 2,200 to 5,500. The lowest score of 2,200 is obtained by 1 student of the participants and the highest score of 5,500 is achieved by also 1 student. The highest frequencies of vocabulary level are 2,800 and 3,200 respectively.

**Table 7: Vocabulary range of the Day and UDE students**

	Frequency	Percent	Valid Percent	Cumulative Percent
22.00	1	.9	.9	.9
24.00	2	1.8	1.8	2.7
25.00	1	.9	.9	3.6
27.00	2	1.8	1.8	5.5
28.00	6	5.5	5.5	10.9
29.00	5	4.5	4.5	15.5
30.00	6	5.5	5.5	20.9
31.00	4	3.6	3.6	24.5
32.00	6	5.5	5.5	30.0
33.00	5	4.5	4.5	34.5
34.00	4	3.6	3.6	38.2
35.00	8	7.3	7.3	45.5
36.00	3	2.7	2.7	48.2
37.00	4	3.6	3.6	51.8
38.00	1	.9	.9	52.7
39.00	7	6.4	6.4	59.1
40.00	9	8.2	8.2	67.3
41.00	2	1.8	1.8	69.1
42.00	2	1.8	1.8	70.9
43.00	1	.9	.9	71.8
44.00	1	.9	.9	72.7
45.00	3	2.7	2.7	75.5
47.00	2	1.8	1.8	77.3
48.00	2	1.8	1.8	79.1
50.00	3	2.7	2.7	81.8
54.00	1	.9	.9	82.7
55.00	5	4.5	4.5	87.3
56.00	1	.9	.9	88.2
57.00	1	.9	.9	89.1
58.00	2	1.8	1.8	90.9
59.00	3	2.7	2.7	93.6
60.00	3	2.7	2.7	96.4
61.00	3	2.7	2.7	99.1
62.00	1	.9	.9	100.0
Total	110	100.0	100.0	

This table shows that the lowest scores were 2,200 and 2,400 word families, obtained by 1 participant and 2 participants respectively. The highest vocabulary range was 6,200 words family, achieved by 1 students and second highest, 6,100 was obtained by 3 students. The highest frequency vocabulary was 40 and got by 9 students.

**Table 8: The Mean vocabulary of Day students**

N	Valid	55
	Missing	0
Mean		45.9273
Median		44.0000
Std. Deviation		10.04223
Range		33.00
Minimum		29.00
Maximum		62.00

This table demonstrates that 55 Day students involved in the study. The lowest vocabulary is 2,900 and the highest is 6,200. The range of the test scores is

3300. Moreover, the mean vocabulary of Day students is 45.97.

**Table 9: The Mean Vocabulary of UDE students**

N	Valid	55
	Missing	0
Mean		33.2364
Median		32.0000
Std. Deviation		6.39144
Range		33.00
Minimum		22.00
Maximum		55.00

This table shows that 55 UDE students involved in the study. The lowest vocabulary is 2,200 and the highest is 5,500. The range of the test scores is 3300. Moreover, the mean vocabulary of UDE students is 33.23.

Comparing table 8 and 9, there is significant differences of vocabulary level between Day and UDE students. The mean vocabulary of Day students is much higher than UDE students.

### Findings and Discussion

The 80 items from the first 8,000 level of the VST were analyzed. There were 110 participants in the research. They were 31 male and 24 female Day students and so did UDE students.

It can be found in this research that the vocabulary range of UDE students is from 2,200 to 5,500. The lowest score of 2,200 is obtained by 1 student of the participants and the highest score of 5,500 is achieved by also 1 student. The highest frequencies of vocabulary level are 2,8000 and 3,200 respectively.

The lowest vocabulary of UDE students is 2,200 and the highest is 5,500. The range of the test scores is 3300. Furthermore, the mean vocabulary of UDE students is 3,300.

It can be clearly seen that the lowest vocabulary is 2,900 and the highest is 6,200. The range of the test scores is 3300. Moreover, the mean vocabulary of Day students is 4,600.

From the study, significant differences of vocabulary level between Day and UDE students was found. It is vivid that the mean vocabulary of UDE students is much lower than UDE students.

The present findings, in spite of some limitations, are of significance to scholars, researchers and teachers who want to use VST in their research or teaching. Moreover, the findings are also of importance to language teachers or syllabus designers. Because of its reliability of the VST, it is

recommended that the test should be employed in language teaching and learning.

### Conclusion

The vocabulary size test (VST) was developed by Nations and Beglar (2007) to measure the vocabulary size of students. It is meant to test vocabulary proficiency rather than specific diagnostic of levels at which students may have a lack of vocabulary.

The highest vocabulary obtained by a student is 6,200 and the lowest one is 2,200. Day students have much more vocabulary than UDE students.

The findings have demonstrated that identifying the students' vocabulary size is vital in teaching English. Moreover, Day students have much more vocabulary than UDE students.

### Acknowledgements

We would like to express our very appreciation to Dr. Khin San Yu, Prof.& Head of Department of English, Meiktila University for her valuable and constructive suggestions during the planning and development of this research work.

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