

## ENGLISH STUDENTS' VOCABULARY SIZE AND LEVEL AT A PRIVATE UNIVERSITY IN WEST JAVA, INDONESIA

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### ABSTRACT

*The research investigated the EFL (English as a Foreign Language) undergraduate students' vocabulary knowledge (size and level). The research involved 40 second-semester students who were enrolling in two reading courses at an English Department in a private university in West Java, Indonesia. Vocabulary Size Test by Nation and Beglar; and Vocabulary Level Test by Webb, Sasao, and Ballance were used to gain data. It is found that the participants' average vocabulary size is 8.732,5 word-families. The finding of the research also reveals that only ten students master 1.000-5.000 word-levels. It means that despite a big vocabulary size that many students have, 75% of them only know a limited high and mid-frequency vocabulary. The findings imply that the students still need to read graded readers to master high and mid-frequency levels. The current research project also indicates that the students might have met more low-frequency words than high and mid-frequency words in their language learning prior to their current extensive reading program.*

**Keywords:** vocabulary size, vocabulary level, English as Foreign Language (EFL), English

### INTRODUCTION

Measuring vocabulary size and level of students is beneficial to know L2 students' reading ability. In other words, the results of the students' vocabulary knowledge tests can inform both teachers and students, whether or not the students have had the adequate vocabulary for doing certain tasks. Besides, the tests can also be used as a tool for teachers to monitor the growth of learners' vocabulary, evaluate the success of a program to reach its objectives, and know the right language learning instruction, materials, and curricula for the students (Beglar, 2010). Also, the result of vocabulary size and level can be used to envisage the students' reading comprehension ability (Laufer, 1997; Qian, 2002), writing quality (Llach & Gallego, 2009; Schoonen et al., 2011; Yang et al., 2019). The research of Alavi and Akbarian (2012) shows that the students' vocabulary level can inform teachers about the students' Test of English as a Foreign Language (TOEFL) performance specifically

for guessing vocabulary, completing required detail, and mentioning the main idea of the text. Moreover, Paul Nation, a great vocabulary scholar, argues that knowing the students' vocabulary level and size is important for teachers before conducting an extensive reading program to help their students find graded readers suitable for their level (Iswandari & Paradita, 2019).

Many researchers have offered several tests that are useful to estimate English learners' vocabulary knowledge (McLean & Kramer, 2015; Nation, 1993; Nation & Beglar, 2007; Schmitt, Schmitt, & Clapham, 2001). However, Read (2000) has claimed that no one best test format is available for measuring students' vocabulary size. Many educators and researchers have employed the Vocabulary Size Test (VST), which was created by Nation and Beglar (2007). It indicates the usefulness of the VST. In addition to that, recently, Webb, Sasao, and Ballance (2017) have created the new Vocabulary Level Test (VLT) to measure students' receptive knowledge of higher frequency

words (1.000-5.000). Nation and Waring (2019) have suggested that this test is appropriate for assessing students' vocabulary level.

Some researchers have investigated both the vocabulary size of L1 and L2 English users. One of their reasons is usually in line with the argument of Nguyen and Nation (2011) that knowing how much vocabulary learners know will be beneficial since it can inform teachers what advice and support that they can give to their learners regarding the best option for improving their vocabulary size. The research of Goulden, Nation, and Read (1999) have found that adult English L1 users approximately know 20.000 word-families. Coxhead, Nation, and Sim (2015) have investigated secondary school students in New Zealand whose L1 is English. Their research has revealed that most of the participants know around 9.000 word-families. Nation (1990) has stated that English L1 users can increase their vocabulary by 1.000-2.000 new words per year. Nation (2012) has stated that non-European L2 English users who are successful undergraduate students and Ph.D. students at an English-speaking university, respectively, know 5.000-6.000 and 9.000 word-families. Regarding L2 English learners, Mclean, Hogg, and Kramer (2014) have investigated the vocabulary size of 3.449 Japanese students in various universities. Their research has revealed that the participants' average vocabulary size is 3.715,20 word-families.

Gibriel (2017) has found that the second and the fourth semester Egyptian English as Foreign Language (EFL) students, respectively, know approximately 6.751 and 7.566 word-families. In China, the research result of Yang et al. (2019) shows that Chinese graduate students averagely know 7.274,75 word-families. Ozturk (2016) has examined the receptive vocabulary growth of 174 English language learners who have studied at an English Program at a university in Turkey by using VST. The vocabulary growth of the participants is measured at various stages of study, and the finding of the research has found that their average vocabulary size is between 5.000 and 6.000. Although their vocabulary size grows by 500 words a year, the size shrinks in their final studying year. Ozturk (2016) has argued that vocabulary attrition might be caused by the students' reduced English usage.

In the context of Indonesia, a few researches on vocabulary size are presented. Overall, the findings of these researches indicate that the more recent the study is, the higher the students' average vocabulary size is (Kusumarasyati & Ramadhani, 2018; Nurweni & Read, 1999; Romadloni, 2019; Umam, 2016). The research of Nurweni and Read (1999) has discussed 324 EFL students' vocabulary receptive knowledge. It is found that their vocabulary size is only 1226 English words. Nurweni and Read (1999) have concluded that they should have acquired 4.000 words because of what is expected from the students upon entry to the university. Umam (2016) has investigated the vocabulary size of 111 fifth semester Indonesian EFL students and found that the highest, lowest, and

average vocabulary sizes of the students are 8.800, 2.800, and 5.873 word-families. These findings are better than the previous findings of Nurweni and Read (1999).

Kusumarasyati and Ramadhani (2018) have examined the vocabulary size of 216 EFL students from the first to the fourth years at Universitas Negeri Surabaya and have compared the result of each batch. The finding of their research has found that the vocabulary size of the first to the fourth-year participants respectively is 5.425 words, 5.641,8 words, 5.987,8 words, and 6.141,3 words and that the participants' vocabulary size has enlarged by 238,8 words per year. Recently Romadloni (2019) has replicated the research and investigated the vocabulary size of 242 undergraduate students from batch 2015 to 2018. She has found that the average vocabulary size for each batch is 6.519,78 words, 7.028,13 words, 7.040,91 words, and 8.202,33 words, respectively. Based on the comparison of the average vocabulary size of each batch, Romadloni (2019) has argued that the students' vocabulary size approximately increases by 5.60,85 words every year or 2,3 times more significant than what Kusumarasyati and Ramadhani (2018) have found. As can be seen, the previous studies on the vocabulary size in Indonesia exist; however, they are still limited. Consequently, more similar studies are needed to know whether the increase in the average vocabulary size will still become a trend or not.

Some researchers have also examined the vocabulary level of L2 English users in Asia and have found that most of the participants have not mastered the first-two 1.000 word-families. For example, Webb and Chang (2012) have studied 166 Taiwanese EFL learners' vocabulary level. They have found that having learned English for nine years, more than 50% of the learners still fail to master high-frequency words in the first 1.000 word-families. Less than 17 % of the learners have mastered the 2.000 word-families. Kurniawan's (2017) research, which has investigated the first 2.000-word-level vocabulary knowledge of 290 first-year undergraduates in the English department at UIN Raden Intan, reveals that the students' average vocabulary size is 1.400 words. Eleven students or 6% of the participants have not yet mastered 1.000 word-level (Kurniawan, 2017). Sudarman and Chinokul (2018) have investigated undergraduate students who are still in the first year of their English study at Kutai Kartanegara University. They have found that not only the participants fail to master academic vocabulary, but they also have not acquired most of the words in 2.000 or 3.000 word-levels.

The previous research of VST and VLT in the L2 contexts is alarming since much research suggests that English language learners need to reach a certain vocabulary level and gain some vocabulary size to perform different tasks in English successfully. Nation (2006) has argued that 98% should be used as the ideal coverage for students. The students will need to master 8.000-9.000 word-families to understand written texts. They should want to read English novels to reach

the vocabulary size of 9.000 word-families (Nation, 2006). To read English newspapers, understand spoken English, and watch children English movies, students respectively need 8.000, 7.000, and 6.000 word-families (Nation, 2006). Other researchers such as Laufer (as cited in Stæhr, 2009) has argued that when students have known 3.000 word-families, they can read authentic texts. Webb and Rodgers (2009) have recommended the teachers and learners to start using television programs as a tool for learning when the learners have known 3.000 word-families. They also argue that people need to master 4.000 word-families and 8.000 families to respectively achieve 95% coverage and 98% coverage of the texts that can allow them to understand the news and get rich information from watching the news (Webb & Rodgers, 2009). Schmitt and Schmitt (2014) have argued that if someone takes 98% coverage, he/she can only understand horror, drama, and crime movies when they have known about 5.000 word-families. At the same time, they can only enjoy war and animation when they have known mid-frequency words about 9.000-10.000 word-families.

Regarding the vocabulary level, Nation (2012) has argued that in order to know how teachers can help their students increase their vocabulary level, they need to relate to three groups of the vocabulary level; high-frequency words (1.000-2.000 word-levels), mid-frequency (3.000-9.000 word-levels), and low-frequency words (from 10.000 word-level and beyond). He claims that a different learning procedure is needed for a different word-level and explains that to know words in 1.000-2.000 word-lists, students need to read graded readers and get involved in the deliberate teaching and learning process. To know the mid-frequency 3.000-9.000 word-families, students should read mid-frequency readers and participate in deliberate learning. Extensive reading and specialized study of words related to a subject area are important to increase students' low-frequency word list or level 10.000 and above (Nation, 2012). However, Schmitt and Schmitt (2014) disagree with Nation's argument regarding the grouping. They maintain that should 8.000-9.000 word-families be adequate for someone to comprehend a wide range of written and verbal texts without any problem; then, the low-frequency word can start beyond the 9.000 word-level (9.000+). Despite the difference, the researchers agree that the bigger the vocabulary size of the L2 students is, the easier for them to do any activities in English (Nation, 2012; Schmitt & Schmitt, 2014). Moreover, Stewart (2014) has stated that students guessing when completing the VST can result in a vocabulary size overestimation. It implies the importance of having both the VST and VLT to get rich information about the students' receptive vocabulary knowledge.

With this in mind, the research aims to know the vocabulary size and the vocabulary level of undergraduate students who are majoring in English in Indonesia and are enrolling in the Extensive Reading program at a private university in West Java, Indonesia.

The research questions are; (1) how significant are the EFL undergraduate students' vocabulary sizes? (2) To what extent have the EFL undergraduate students mastered 1.000-5.000 word-levels?

## METHODS

The research involves 40 undergraduate students who enrolled in the second-semester reading courses at a private university in West Java, Indonesia. They join an extensive reading program which is combined with an intensive reading learning in the reading course. The participants are 13 male and 27 female students. Their ages are between 19-21 years old. Thirty-eight students are Indonesian, and two students are Korean.

In the research, students have to complete two vocabulary tests. First, they have to do an online VST of Nation and Beglar (2007) 14.000 or 20.000 versions. The VST contains word frequency lists that are taken from the British National Corpus (BNC). The format of the tests is a four-option multiple-choice that requires test takers to recognize the written form of words. The 14.000 test version consists of 140 questions, while the 20.000 test version contains 100 multiple-choice items. Nation (2012) has claimed that both forms of VST are equivalent. The tests can be accessed at <https://my.vocabularysize.com/>. Second, the students have to take the vocabulary level test (VLT) of Webb, Sasao, and Ballance (2017). The second test is used to measure students' vocabulary level (1.000-5.000). The VLT consists of word-frequency lists taken from the BNC and Corpus of Contemporary American English (COCA). Students are asked to complete an online test. The tests can be accessed at [https://vuw.qualtrics.com/jfe/form/SV\\_6Wrb5aUvXjIAS6h?Q\\_JFE=qdg](https://vuw.qualtrics.com/jfe/form/SV_6Wrb5aUvXjIAS6h?Q_JFE=qdg).

The data are analyzed quantitatively. The research follows the recommendation of Nation and Beglar (2007) when counting the VST result. Thus, the correct answers are multiplied by 100 when the students complete the 14.000 test version. It means that when a learner can correctly answer 60 questions, their vocabulary size will be stated as 6.000 words. For students who have completed the 20.000 test version, their correct answers are multiplied by 200. Thus, when a learner can correctly answer 60 questions, their vocabulary size will be stated as 12.000 words. For the second test or VLT, the analysis follows the recommendation of Webb, Sasao, and Ballance (2017). Thus, the cutting point for mastering 1.000 to 3.000 word-level is set 97%, or it is similar to 27 correct answers out of 30 questions. Furthermore, for mastering 4.000 and 5.000 word-level is set at 80%, or it is similar to 24 correct answers out of 30 questions.

## RESULTS AND DISCUSSIONS

Table 1 presents the results of 40 students of English major who participated in the Vocabulary Size Test. In general, it can be seen that 92,5% of the students

know between 6.000 and 15.400 word-families. The mean score of the students' vocabulary size is 8.732,5 word-families, and the standard deviation is 2.496,5. It can be seen that the gap between the highest score (15.400 word-families) and the lowest score (3.100 word-families) is enormous. In other words, the lowest vocabulary size is only 20% of the highest vocabulary size and 28% of the mean vocabulary size. The quite big standard deviation in the research indicates a wide range of different proficiency levels of the participants.

Table 1 Students' Vocabulary Size

Size estimate (word-families)	Frequency	Percentage
≥10.000	13	32,5
8.000-9.000	12	30
7.001-7.999	5	12,5
6.000-7.000	7	17,5
5.000-5.999	1	2,5
3.000-4.000	2	5
Total	40	100
Mean	8.732,5	
SD	2.496,5	
Highest score	15.400	
Lowest score	3.100	

Table 2 shows the findings of students' vocabulary level. Broadly, it can be observed from the table 95% (N: 38) of the students have acquired the first 1.000 vocabulary level; however, only 60% (N: 24) of the students do master the first 2.000 word-level. It means that many students still do not acquire the 2.000 frequent-used words in English even after they have studied in the English department for about six months. Furthermore, only nine participants master

the 3.000 level. As mentioned earlier, the percentage cut-off for the 4.000-5.000 word-levels is 80%. Table 2 also shows that 62,5% of students master the 4.000 and 5.000 word-levels, but only 11 students or 27,5% answer correctly all questions in the 4.000 and 5.000 word-levels. The finding also reveals that only ten students or 25% of the students master from 1.000 to 5.000 word-levels.

As mentioned, 92,5% of the students in the research know between 6.000 and 15.400 word-families, and 7,5% only know between 5.000 and 5.999 word-families. The findings indicate that while most of the students have already had enough vocabulary to get involved in reading and listening activities, which according to Nation (2006), they correspondingly require a vocabulary size of 8.000-9.000 word-families and 6.000-7.000 word-families, while 7,5% of the students will have difficulty in joining the activities. The findings of the highest, the lowest, and the average size (15.400, 3.100, and 8.732,5 respectively) are higher than the highest, the lowest, and the average size of the participants' vocabulary size in the study of Umam (2016) which respectively are 8.800, 2.800, and 5.873. The difference is not really significant for the lowest vocabulary size of the participants. Moreover, the students' average vocabulary size in the research is also more prominent than the average score of Indonesian participants of Kusumarasyati and Ramadhani (2018), and Romadloni (2019). The first first-year participants' average vocabulary size in Kusumarasyati and Ramadhani (2018) is 5.425 words, and in the research of Romadloni's (2019), it is 6.519,78. It is also noticeable that the participants' average vocabulary size in the research is more significant than the fourth-year participants of Kusumarasyati and Ramadhani's (2018) and Romadloni's (2019) research, which respectively acquire 6.141,3 words and 8.202,33 words. The findings indicate the trend that the more recent the research is, the higher the students' average

Table 2 Total of Students Knowing 1.000-5.000 High-Frequency Word

Cutting point	Total of students (N: 40)				
	1.000	2.000	3.000	4.000	5.000
100%	29	15	5	9	2
97%	9	9	4	4	5
>80 - <97%	2	12	12	8	15
80%	0	3	4	4	3
< 80%	0	1	15	15	15
Mean (%)	98,7	93,5	80,6	81,8	79,9
SD	3	8,7	15,2	15,5	16,3
Total	40	40	40	40	40
Pass all levels/cutting points	10 students				

vocabulary size is.

In the current research project, the participants' average vocabulary size is also higher than the average vocabulary size of Japanese undergraduate students in the research of Mclean, Hogg, and Kramer (2014), which is about 3.715,20 word-families. However, in their research, the test only contains questions on the most frequent 8.000 words. For the research, however, the test contains 14.000 and 20.000 word-families. It is also clear that the lowest vocabulary size in the current research is much lower than the average vocabulary size of the participants of Mclean, Hogg, and Kramer (2014). The participants' average score in the research is also more significant than average score found in the previous studies of Ozturk (2016). Ozturk's (2016) participants' average score is between 5.000 and 6.000 words.

However, if the results of VST and VLT are being considered, it can be seen that although the undergraduate students' average vocabulary size is about 8.700, only ten students master 1.000-5.000 word-levels. In other words, 75% of the students might have met more low-frequency words than high and mid-frequency words in their language learning prior to their current extensive reading program. Therefore, these students still have to improve their vocabulary knowledge of high and mid-frequency words. Also, there is a possibility that the students' average vocabulary size is quite significant due to the fact that these students might have partial knowledge of the low-frequency words, but only know limited words which are in 1.000 to 5.000 word-levels. According to Nguyen and Nation (2011), it is possible for learners to guess the answer to questions that contain words from less frequent levels in VST. The guessing may be successful when students have partial knowledge of words (Nation & Webb, 2011). The existence of loan words in the test, from the low-frequency word-levels and in learners' curricula, might also make students know more words from the low-frequency lists than words from the high-frequency lists (Nguyen & Nation 2011).

High-frequency words are very important for students to master because they occur very often in discourses. While Nation (2006) has argued that only words in the first 2.000 word-level are high-frequency level words, Schmitt and Schmitt (2014) have suggested that the high-frequency vocabulary must include 1.000 words in the English language programs. The research finding shows that 18 students (60%) have not yet mastered the first 2.000 word-level. The finding is similar to the studies of Kurniawan (2017) and Sudarman and Chinokul (2018). Also, 31 students (77,5%) know lesser than 80% of 3.000 words-level. Although the result is quite alarming, it is not surprising since Laufer (2000) has claimed that even after 1.000 hours or more of English learning, a great number of learners might not acquire high-frequency vocabulary. In a similar vein, Stæhr (2008) has argued that after 400-700 hours of instruction, students will still gain less than 2.000 words. It also implies that

the students in the research have not met enough and learned the high-frequency word in their English classes. Therefore, the extensive reading program that they are having after the test is significant for increasing their high-frequency words.

The finding shows that ten of 40 students have mastered the 1.000-5.000 word-levels implies that although the extensive reading program is important for all students, they will need to read different types of graded readers. While most participants can read graded readers that usually contain 1.000-3.000 word-levels, ten students who have mastered the 1.000-5.000 levels can increase their vocabulary knowledge by reading graded reader books that start from 4.000 word-level or contain words from the mid-frequency word list. Unfortunately, publishers have not yet produced graded readers with that level (Nation, 2014). Despite that, students can still read some free copies of graded readers with the 4.000, 6.000, and 8.000 word-levels that Nation and other scholars have developed. These can be found on the official website of Paul Nation [https://www.wgtn.ac.nz/lals/about/staff/paul\\_nation](https://www.wgtn.ac.nz/lals/about/staff/paul_nation). These students can also improve their vocabulary size by watching television programs (Webb and Rodgers, 2009). Specifically, Rodgers and Webb (2011) have explained that learners who have acquired the most frequent 3.000 word-families as well as knowing both marginal words and proper nouns have reached 95% coverage of television program texts. Therefore, if they watch at least 60 minutes of related television programs daily, they will be benefited from incidental vocabulary learning.

## CONCLUSIONS

In summary, the research has found that 92,5% of the participants have a vocabulary size between 6.000 to 15.400 word-families with an average vocabulary size of 8.732,5 word-families. Thus generally, the students have already had enough vocabulary to get involved in reading activities that require the mastery of 8.000-9.000 word-families, and in listening activities that require the mastery of 6.000-7.000 word-families. However, only ten students master 1.000-5.000 word-levels. It means that despite most of the participants have a big vocabulary size, 75% of them know limited words from high and mid-frequency vocabulary lists. Thus, an extensive reading program is crucial for facilitating students' vocabulary learning.

Moreover, it is important to emphasize that although measuring students' vocabulary size is time-consuming because, for one test, the students might have to spend 40-60 minutes. The result of the VST is still valuable to inform both learners and teachers. It is about the learners' vocabulary knowledge breadth and what teachers need to decide regarding syllabus design, what students can read in their extensive reading program, what vocabulary learning they should have, and how to regularly evaluate their vocabulary size.

Therefore, further research can replicate the research. It can also use the paper-based test so that the result of all levels are known in detail. The current research only involves limited participants and two online vocabulary tests. Therefore, some directions that might throw light on the English language learning in Indonesia are; (1) to investigate EFL students' vocabulary knowledge breadth, depth, and growth; (2) to involve more participants from different semesters or batches; (3) to employ available or new vocabulary tests; and (4) to include students' self-report on their guessing answer that might be useful to explain their partial vocabulary knowledge. On top of that, the trend that shows the more recent the research is, the higher the students' average vocabulary size in some Indonesian tertiary contexts. It is worth to be further investigated, including the cause of such a trend.

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