# A study of Indonesian university students' vocabulary mastery with vocabulary level test 

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#### Abstract

In investigating learners' vocabulary mastery, some researchers focused their studies on either receptive or productive vocabulary mastery. This study examines university students' vocabulary knowledge in Indonesia by using the Vocabulary Level Test (VLT). It also compares the receptive vocabulary size of students who obtained extra hours of English instruction with those who had not. Furthermore, this study also identifies their strategies in enhancing their vocabulary mastery. The 2000-word frequency-band from the receptive version of the VLT and questionnaire are used for data collection. The results show that their receptive vocabulary scores are lower than 2000 words and no significant difference was found between the students who had extra hours of English instruction and those who had not. Then it can be stated that even after they had gained extra hours of English instruction, their average vocabulary knowledge was still lower than the 1000 estimated word level in the VLT.


Keywords: vocabulary mastery, Vocabulary Level Test (VLT), English as a Foreign Language (EFL), undergraduate students.

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## 1. Introduction

Vocabulary is an essential aspect that should be acquired in learning language. Studies of vocabulary size either in English as a second language (ESL) or English as a foreign language (EFL) have been carried out by many researchers. Some of them used the Vocabulary Level Test (VLT) to examine learners' vocabulary mastery. In investigating language learners' vocabulary mastery, some researchers focused their studies either on receptive or productive vocabulary mastery. VLT which is a test to examine learners' vocabulary size was designed to identify learners' vocabulary knowledge both receptively and productively (Schmitt, 2010).

Studies of receptive vocabulary using the VLT with samples of university students have also been conducted in Hong Kong, China, Canada, Germany and Malaysia (Abdullah, 2012). Similar studies were also conducted by Li and McGregor (2012) in the context of university-level Chinese learners and by Alonso (2012) with secondary level Spanish EFL learners as participants. Meanwhile, studies in productive vocabulary were undertaken by Laufer and Nation (1999) and Azodi, Karimi and Vaezi (2014). Previously, there were also several vocabulary studies in Indonesia, one of them carried on by Nurweni and Read (1999) in an Indonesian university. However, that study did not use the VLT as the investigation instrument.

More than five decades ago, two studies in Indonesia and India were conducted by Quinn (1968) and Barnard (1963) as cited in Read and Nation (1986). Both studies presented findings which implied that English vocabulary mastery 'among university students in Asia is placed at a low level, even after extensive study of English at the secondary level' (Read \& Nation, 1986). Bearing this evidence in mind, there are some points to be investigated in this study. These are related to the aim of this study.

This study aimed at examining the receptive vocabulary knowledge of second year undergraduate students in an English Education Programme in an Indonesian college. In addition, this study also compared the receptive vocabulary size of students who had obtained additional hours of English instruction and those who did not. Furthermore, this study also identified their strategies to enhance their vocabulary mastery.

## 2. Literature review

Vocabulary mastery is one of the important aspects to be acquired in learning language. Vocabulary knowledge can be divided into two types; receptive vocabulary and productive vocabulary. These two terms are used to distinguish between 'receptive' skills and 'productive' skills (Palmer, 1921; Wets, 1938; Crow, 1986 as cited in Nation, 2001). However, according to Teichroew (1982) cited in Nation (2001) 'there is the inconsistent use of the terms receptive and productive in relation to test items and degrees of knowing a word'. Nevertheless, he explains that these two terms relate to the receptive and productive language in language learning. Nation (2001) explicates that 'receptive vocabulary use involves perceiving the form of a word while listening or reading and retrieving its meaning'. Meanwhile, 'productive vocabulary use involves wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form'.

### 2.1. Vocabulary research studies

There have so far been many studies researching vocabulary knowledge. Some studies focused on the use of the Vocabulary Level Test (VLT)to investigate language learners' vocabulary mastery either at high school or university level; in ESL or EFL contexts. There are two versions of the VLT for testing vocabulary, namely receptive versions and productive versions (Nation, 2001). Several studies that
investigated vocabulary sizes include those conducted by Akbarian (2010), Alonso (2013), Abdullah (2012), Alavi (2012), Nation, (2011), Li and MacGregor (2010), Zhang (2013),Cameron (2002), Laufer and Nation (1999) and many more.

Receptive vocabulary research studies have been undertaken in several countries. Some of them include that conducted by Alonso (2013) which involved 92 Spanish students. That study specifically examined the vocabulary size of male and female students. Moreover, a study in the Vietnamese context was conducted by Nation (2011). He developed and validated the vocabulary size test for Vietnamese learners in a bilingual version. Another study conducted by Abdullah (2012) assessed Malaysian undergraduate students' vocabulary mastery.

In addition to the studies of receptive vocabulary, there are also some studies exploring learners' productive vocabulary (Laufer \& Nation, 1999; Azodi et al., 2014). These studies might allow researchers to look into other facets of vocabulary mastery such as 'breadth of vocabulary knowledge' (Laufer \& Nation, 1999) and productive vocabulary knowledge that can help express meaning through speaking or writing (Nation, 2001 as cited in Azodi et al., 2014).

Studies using the VLT were also intended to capture other aspects of learners' performance in language learning. This was what Alavi (2012) attempted in his study relating the VLT to the performance on the five types of reading comprehension items tested in TOEFL. He found that there was a kind of relationship between the learners' vocabulary proficiency level and their performance in the type of test items. Furthermore, other research conducted by Akbarian (2010) focused on examining the relationship between vocabulary size and depth, particularly for ESP/EAP learners.

Two vocabulary research studies in the Indonesian context were undertaken by Nurweni and Read (1999) and also Quinn (1968) as cited in Read and Paul (1986). Nurweni and Read (1999) not only investigated the learners' vocabulary knowledge but also how well they knew the vocabularies. From his study, Quinn (1968) as cited in Read and Paul (1986) found that 'the average university entrant' did not meet the adequate demand of vocabulary mastery for 'the average university entrant'. These two studies enlighten the present study in the matter of similarity of context regarding Indonesian learners as participants.

### 2.2. Learning strategy to improve vocabulary

As vocabulary mastery is essential for language learners, strategies to help develop it also need to be taken into consideration. William (1985) as cited in Nation (2001) indicates five strategies to figure out 'the meaning of unfamiliar words in written text' such as: 'inferring from context, identifying lexical familiarization, unchaining nominal compounds, synonym search and word analysis'. Moreover, Nation (2001) suggests 'a taxonomy of kinds of vocabulary learning strategies'. From this taxonomy, he proposes a 'general class of strategies' including: 'planning vocabulary learning, finding information about words (sources) and establishing vocabulary knowledge (processes)'.

Besides the strategies identified above, several studies also focused on exploring strategies that could help language learners enhance their vocabulary mastery. Two of the studies in this area were conducted by Dewey (2008) and Nacera (2010). Dewey (2008) compared 'the development of vocabulary knowledge' between two groups of students i.e. those that study abroad (SA) and those that had intensive domestic immersion (IM). He found that 'overall, gains in vocabulary were fairly similar between the SA and IM'. Meanwhile, Nacera (2010) investigated students' vocabulary size and their learning strategies which included direct and indirect learning. Furthermore, Read (2004) used two terms in his study related to vocabulary learning, those were incidental and intentional vocabulary learning.

## 3. Methodology

This research study was conducted during the academic year 2014-2015 in a college in West Java, Indonesia.

### 3.1. Vocabulary research studies

The site of the study was a college situated in West Java, Indonesia. As the researcher was one of the teaching staff in the college, access to the school and participants was feasible. A lecturer, the researcher's colleague, helped conduct this study by administering and distributing questionnaires to the participants. A total of 52 undergraduate students participated in this study. They were second year students of the English Education Programme in a college located in West Java, Indonesia. The students were 18-19 years old. The second year English Education students were chosen as they had had one year of being involved in English instruction at college level. This means that they had one year's experience intensively learning English in the English Education Programme in addition to their previous high school level.

Thus, it was expected that their vocabulary mastery was better than first year students. The general purpose of the study was communicated to the participants. They were also notified that the outcome of their VLT test would not affect their course outcome. The participants had the right to participate or not in this study. As part of the ethical considerations, the students' confidentiality and anonymity were given priority. This was achieved by not reporting the students' names in the findings relating to individual students.

### 3.2. Instruments and data collection procedure

There were two types of instruments for this study. Those were the new versions of the 2000 receptive Vocabulary Level Test (VLT) that had been validated (Schmitt, Schmitt \& Clapham, 2001) and a questionnaire (see Appendices I and II). In order to consider content validity, the questionnaire was reviewed by the researcher's tutor as an expert (Carmines \& Zeller, 1979 as cited in Cohen, Manion, \& Morrison 2011).

The questionnaire consisted of three questions. The first and second questions confirmed the students' experience either of having additional hours of English instruction outside their schools or not. The last question was about techniques they used in learning and improving their vocabulary. They could choose to select more than one answer that represented them. One session during class time was needed for collecting data. The students completed the test and the questionnaire in less than 15 minutes. A lecturer helped distribute and administer the test and also the questionnaire. SPSS 17.0 was used to present descriptive statistics.

## 4. Results

### 4.1. The receptive vocabulary knowledge of second year undergraduate students in an English Education Programme in an Indonesian College

Initially, descriptive statistics were conducted. This reveals the sum, mean and standard deviation of the 52 students' VLT scores. The sum of the scores is 534 ; the mean is 10.27 and the standard deviation is 4.96.

Table 1. Frequency of Students' VLT Scores

|  | Frequency | Percent | Valid Percent | Cum. Percent |
| :--- | :--- | :--- | :--- | :--- |
| $0-5$ <br> $(0-333$ words $)$ <br> $6-10$ | 9 | 17.3 | 17.3 | 17.3 |
| (400-677 words) <br> $11-15$ <br> $(733-1000$ words $)$ | 18 | 34.6 | 34.6 | 51.9 |
| $16-20$ <br> $(1067-1333$ <br> words) <br> $21-25$ <br> $(1400-1677$ <br> words) <br> Total | 8 | 30.8 | 30.8 | 82.7 |

Table 1 shows the students' VLT score frequency and the estimates of known words. These estimates were adapted and adopted from the previous related study conducted by Alonso (2013). Based on this data, it is clear that the majority of the students, $34.6 \%$ and $30.8 \%$, were sequentially estimated as having 400-667 words and 733-1000 words, respectively.

These findings reveal that there were $17.3 \%(n=9)$ students that just acquired between 0-333 words and $15.4 \%(n=8)$ of them were estimated as having about 1067 to 1333 words. Most of the students, $34.6 \%(n=18)$ and $30.8 \%(n=16)$, were sequentially estimated as having 400-667 words and $733-1000$ words, respectively. Meanwhile, only one student (1.9\%) had between 1400 to 1667 words. None of them reached the 1733-2000 word level. These results indicate that generally the receptive vocabulary scores of second year undergraduate students in an Indonesian college are lower than 2000 words.

### 4.2. VLT Scores of students with and without additional English Course Background

The participants obtained 720 hours of instruction in English in their previous high school level. Some of them also had extra hours of instruction in English as they had joined an English course outside school. More than half of the participants ( $n=27$ or $52 \%$ ) had joined an English course outside school. They variously joined the English course outside school for less than six months to more than a year.

To investigate any difference in the receptive vocabulary size between the students with or without extra English course background, the Mann-Whitney test was run. Table 2 reveals that the $z$ value is -1.47 with a significance level ( $p$ ) of $p=0.14$ (rounded). The probability value ( $p=0.14$ ) is not less than or equal to 0.05 , so the result is not significant. Hence, there is no statistically significant difference in the receptive vocabulary size between the students with or without additional instruction outside school.

Table 2. Mann-Whitney U Test Statistics

|  | VLT Score |
| :--- | :--- |
| Mann-Whitney U | 257.500 |
| Wilcoxon W | 635.500 |
| Z | -1.470 |
| Asymp. Sig. (2-tailed) | .141 |
| Exact Sig. (2-tailed) | .144 |
|  | .072 |

Table 3. Estimated Receptive Vocabulary Size
0-333 400-667 733-1000 1067-1333

Estimated Receptive Vocabulary
Size (word level)

| Students with <br> the extra hours <br> of English | Yes $(n=25)$ | $5 \quad(20 \%)$ | $5 \quad(20 \%)$ | $8 \quad(32 \%)$ | $6(24 \%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Course <br> Background | No (n=27) | $4(15 \%)$ | $13(48 \%)$ | $8(30 \%)$ | $2(7 \%)$ |

The estimate of students' receptive vocabulary size between the additional English instruction group and non-additional instruction one is illustrated in Table 3. From 25 (48\%) students that had extra hours in English instruction, there was only one of them that reached 1400-1667 words for the estimated receptive vocabulary size. None of them achieved the 1733-2000word level. Six students achieved the 1067-1333word level; eight were in the 733-1000word level; five students were each placed in the 400-667 and 0-333 estimated word levels.

Meanwhile, there were 27 students ( $52 \%$ ) out of the overall participants who did not have extra English courses outside school. None of them reached the 1733-2000 or 1400-1667 word levels for the estimated receptive vocabulary size. There were only two students that achieved the 1067-1333 known word level; eight of them gained 733-1000 known words; 13 students obtained a 400-667 known word level and some of them had the lowest one, 0-333 known words of estimated receptive vocabulary size.

Therefore, it can be concluded that although statistically there is no significant difference between the students who had extra hours of English instruction and those who had not, but the spread of estimated receptive vocabulary size between these two groups was different. Some students with extra hours of English instruction had gained more known words. One student achieved 1733-2000 and six gained the 1400-1667 known word level. On the other hand, among the students whodid not obtain extra hours of English instruction, none of the participants reached the 1733-2000 or 14001667 word levels for the estimated receptive vocabulary size. This means that some of the participants that had extra hours of English instruction outside school performed a better known word level than those who did not.

### 4.3. Students' Techniques for improving their English Vocabulary

In investigating the students' techniques for improving their vocabulary, some questions were included in the questionnaire. One of the questions was adapted from the previous related study conducted by Abdullah (2012). The students confirmed the technique used in improving English vocabulary by choosing from the optional choices provided. They could choose more than one technique and it was a kind of self-reporting approach; 'it is not possible to verify actual use of techniques' (Abdullah, 2012, p. 453).

The categories were set, by following Abdullah (2012), 'from passive/incidental activities to more deliberate activities'. It was found that the majority of the students (90\%) tended to listen to/watch English movies/TV/radio as their technique to enhance their English vocabulary. The second technique that was mostly used by students ( $42 \%$ ) involved looking up unfamiliar words in a dictionary. There were $29 \%$ of students who learned lists of unfamiliar words as their technique to enhance their English
vocabulary; $25 \%$ of them tended to write useful words and phrases in a notebook and $10 \%$ chose to talk to people in English every day. One student (S9) pointed out that she always tries to get used to communicating in English with her friends and they correct their mistakes for each other by looking up a dictionary. Another student (S35) stated that 'I usually watch movies and listen to music as these can help me gain new vocabularies. These are more effective for me'. S3 admitted that a vocabulary game application on a mobile phone can help increase her vocabulary mastery. Meanwhile, S16 believed that new vocabularies with pictures can contribute to improving his vocabulary mastery.

## 5. Discussion

The aims of this study were to examine the receptive vocabulary knowledge of second year undergraduate students in an English Education Programme in an Indonesian college. It was also to compare the receptive vocabulary size between students that had obtained extra hours of English instruction and those who had not. Moreover, this study also identified their strategies for enhancing vocabulary knowledge.

The findings generally illustrate that the receptive vocabulary scores of second year undergraduate students in an Indonesian college are lower than 2000 words. These results reinforce evidence stated by previous researchers (Quinn, 1968; Barnard, 1963 as cited in Read \& Nation, 1986; Abdullah, 2012) that vocabulary knowledge of university students in Asia is still inadequate and demonstrates a low level of vocabulary mastery.

The findings of the present study are in line with those of Quinn (1968) cited in Read and Nation (1986) who confirmed that 'the average university entrant in his sample had a vocabulary of 1000 words after six years of study'. It was found from this study that most second year undergraduate students in an Indonesian college, $34.6 \%(n=18)$ and $30.8 \%(n=16)$, were sequentially estimated having 400-667 words and 733-1000 words, respectively. Thus, Quinn's research findings which were undertaken more than five decades ago are still relevant today. It can be stated that there are no significant differences between the undergraduate students' vocabulary mastery in Indonesia since five decades ago.

The second issue proposed in this study was comparing the students' vocabulary size between those who had obtained additional instruction hours in English and those who had not. It was confirmed that statistically there is no significant difference between the students that had extra hours in English instruction and those who had not. However, the spread of estimated receptive vocabulary size between these two groups was different.

Some students having extra hours of English instruction gained more known words. One student achieved 1733-2000 estimated known words and six of them gained a 1400-1667 estimated known word level. On the other hand, among the students that did not obtain additional hours of English instruction, none of the participants reached the 1733-2000 or 1400-1667 estimated known word levels for their receptive vocabulary size. It means that some of the participants that had additional hours of English instruction outside school performed a better known word level than those who had not.

This finding also affirmed a study conducted by Quinn (1968) cited in Read and Nation (1986) that the university students' vocabulary mastery in Indonesia was low 'even after extensive study of English at the secondary level'. If it is linked to the present study, then it could be stated that even after they had gained extra hours of English instruction, their average vocabulary knowledge was still lower than the 1000 estimated word level in the VLT.

The last issue proven in recent study was about second year undergraduate students' strategies in enhancing their vocabulary knowledge. Abdullah (2012) found that the majority of students tended to
do passive/incidental activities to improve their vocabulary mastery. In line with what Abdullah (2012, p.453) found, this study also confirmed that the majority of second year undergraduate students in an Indonesian college was prone to prefer passive/incidental activities to more deliberate activities.

It was found that the majority of students tended to listen to/watch English movies/TV/radio as their technique to enhance their English vocabulary. The second technique that was mostly used by students was looking up unfamiliar words in a dictionary. The next technique used by students was learning lists of unfamiliar words as their technique for enhancing their English vocabulary. Then they prefer to write useful words and phrases in a notebook and the last one used was talking to people in English every day. This technique was used by only $10 \%$ of the students. Therefore, the study revealed that students mostly used passive/incidental activities to enhance their vocabulary mastery rather than more deliberate ones.

## 6. Study limitations

Some limitations need to be considered in relation to this study. As the participants involved were only from the second year of an English Education Programme in a college situated in West Java, Indonesia, the results do not represent most undergraduate students in Indonesia. Besides, this study was conducted only in an English Education Programme. Further related research studies can be undertaken with a larger sample size and involving some higher departments and colleges/universities which can represent a broader area. Therefore, the results can be more convincingly comparable to other related studies from other countries.

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