

# Measuring the Academic Vocabulary Size of University Students in Nepal<sup>1</sup>

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## Abstract

Students' knowledge of academic vocabulary is a crucial aspect of learning English as a second or foreign language at the university level. Using academic vocabulary lists could be a valuable resource in teaching and learning vocabulary. This study measured the academic vocabulary size of Nepalese university students using Schmitt's (2010) Academic Vocabulary Level Test Version 2 as a data collection tool. The participants were 62 adult EFL students. The data were collected online via Google Forms. The results showed that the average academic vocabulary size of the students was 435 (76.3%) words out of 570 word-families in the academic vocabulary word list. The results also showed that the students had heterogeneous knowledge with varying degree of academic vocabulary achievement ( $M = 22.02$ ,  $SD = 8.6$  and Coefficient of Variation = 39.1%). The results of the study suggest that English education students at the university level in Nepal need explicit instruction, concentration, and practice to gain mastery over academic vocabulary with less variation of knowledge in their academic vocabulary achievement.

## Resumen

El conocimiento del vocabulario académico por parte de los estudiantes es un aspecto crucial del aprendizaje del inglés como segunda lengua o lengua extranjera a nivel universitario. El uso de listas de vocabulario académico podría ser un recurso valioso para enseñar y aprender vocabulario. Este estudio midió el tamaño del vocabulario académico de los estudiantes universitarios nepaleses utilizando la Prueba de Nivel de Vocabulario Académico de Schmitt (2010) Versión 2 como herramienta de recopilación de datos. Los participantes fueron 62 estudiantes adultos de EFL. Los datos se recopilaron en línea a través de Google Forms. Los resultados mostraron que el tamaño promedio del vocabulario académico de los estudiantes fue de 435 (76,3%) palabras de 570 familias de palabras en la lista de palabras del vocabulario académico. Los resultados también mostraron que los estudiantes tenían conocimientos heterogéneos con diferente grado de aprovechamiento del vocabulario académico ( $M = 22,02$ ,  $SD = 8,6$  y Coeficiente de Variación = 39,1%). Los resultados del estudio sugieren que los estudiantes de educación en inglés a nivel universitario en Nepal necesitan instrucción, concentración y práctica explícitas para dominar el vocabulario académico con menor variación de conocimiento.

## Introduction

Many researchers have realized the importance of vocabulary for successful foreign language learning (AL Qahtani, 2015; Gu, 2003; Lessard-Clouston, 2013; Marion, 2008; Nation, 2005; Read, 2004; Susanto, 2016; Susanto, 2017). Learning words in a language involves mastering form, pronunciation, meaning, and use (Nation, 2001). For better performance, the grasp of vocabulary is considered an important part of every aspect of language knowledge (Daller et al., 2007), especially in teaching and learning English as a second or foreign language as “the literature reveals a strong relationship between EFL learners' vocabulary knowledge and language skills” (Al-Masrai & Milton, 2012, p.14). Since vocabulary is the “building block of language” (Schmitt et al., 2001, p.55), acquisition of a wide range of vocabulary is essential for students to perform better in listening, speaking, reading, and writing (Nation, 1993; Nation, 2001; Shinichi et al., 2014). This also includes other areas of communication and language use such as pragmatics (Wilson & Bishop, 2021), English for specific and academic purposes (Nagy & Townsend, 2012), mathematical learning (Riccomini et al., 2015) and semiotics (Hişmanoğlu, 2005; Valtolina et al., 2012), among others. Citing Anderson and Freebody's (1981) instrumentalist view, Nation (1993) argues, “Good vocabulary knowledge enables good comprehension” (p. 115), and this view still holds true since other researchers have also emphasized this issue (James et al., 2020; Mart, 2012; Shen, 2008; Stæhr, 2009). It can be said that the larger the vocabulary size, the better the performance.

A rich vocabulary is essential for the proficient use of language in both spoken and written forms. Extensive vocabulary knowledge of the students “is a good indicator of overall language proficiency” (Li & MacGregor, 2010, p.239). However, in recent years, teaching and learning vocabulary has received relatively little attention in the English as a foreign language (EFL) context (Alqarni, 2019). In private schools where English medium instruction (EMI) is common, all the subjects except the national language, are taught in English. Due to EMI, vocabulary is taught in formal contexts and most words are learned through classroom instruction (Siyanova-Chanturia & Webb, 2016). Nonetheless, the importance of

<sup>1</sup> This is a refereed article. Received: 1 July, 2021. Accepted: 14 February, 2022. Published: 19 January, 2023.

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teaching and learning vocabulary cannot be underestimated. Harmer (1991) claims that "If language structure makes up the skeleton of the language, then it is vocabulary that provides the vital organs and the flesh" (p. 153). This view reflects the importance of vocabulary in teaching and learning language. Effective and successful communication by means of a language depends on the mastery of vocabulary power.

Measuring the learners' academic vocabulary size can be an indicator of their academic language proficiency, as a large academic vocabulary size makes it easier to perform successfully in English (Nation, 2006; Schmitt & Schmitt, 2014). Measuring the university level learners' vocabulary knowledge is crucial to identify their level of vocabulary knowledge (Al-Masraii & Milton, 2012; Milton & Hopkins, 2006). Information about the learners' vocabulary knowledge can be an indicator for the teacher in their overall language performance in different language-related activities and tasks. If a teacher knows the size of the learners' vocabulary, they can implement certain strategies to improve their vocabulary level. Taking this point into consideration, this study aimed at measuring the vocabulary knowledge, in particular the academic vocabulary size, of Nepalese postgraduate university students in the department of English education.

In Nepal as an EFL context, students study English as a specialization subject with the aim of becoming qualified English teachers. Therefore, it is essential to discover the progress of the university students in learning by measuring their academic vocabulary achievement. Acquiring academic vocabulary at the university level can help the students to skillfully communicate with other members of the academic community (Markanastasakis, 2019). Based on this premise, this study measured the academic vocabulary size of English education master's degree students in their third semester at a university in Nepal. The results of this study can have significant implications for improving English language education of the Nepalese university students by enhancing their academic vocabulary knowledge through teaching and learning activities focusing on teaching vocabulary for general and specific and academic purposes. In Nepal, since vocabulary teaching receives little attention, this study can hopefully help prioritize vocabulary teaching and learning in general and academic vocabulary teaching and learning in particular at the graduate level. Understanding the size of academic vocabulary repertoire among master's level students can facilitate teachers and learners meeting the aims of their academic courses and related activities.

Based on the analysis of the previous research, this study measured the existing academic vocabulary size of university English Major students studying at the master's level third semester in an education stream in Nepal.

## Literature Review

### *Learning vocabulary in the ESL/EFL classes*

Gaining vocabulary knowledge is an important aspect of learning a foreign language (Schmitt & Carter, 2000; Schmitt, 2008). The argument put forward by Wilkins (1972): "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p.111) shows the power of vocabulary in language learning, especially in ESL/EFL learning contexts. Reflecting on the importance of learning vocabulary, Nation (1990) argues that vocabulary power makes the skills of listening, speaking, reading and writing easier to perform. The development of the learners' vocabulary knowledge eventually leads to better listening, speaking, reading and writing abilities of the learners (Chang, 2007; Hinkel, 2004; Khan et al., 2018; Nation, 2001; Nouri & Zerhouni, 2016).

It is important to teach vocabulary in ESL/EFL classrooms. As Zimmerman (2018) observed:

*Students typically pause when giving a response, and they use that moment to search their memories for the word or phrase needed to complete their ideas. In view of this, it is surprising that pronunciation and grammar have often been given more attention than vocabulary in EFL teacher training. While grammar and to a lesser extent pronunciation are important, communication breakdowns typically occur because of a lexical problem.*

This further supports the argument made by Wilkins (1972) above and that of other research studies (e.g., Alqahtani, 2015; Susanto, 2017). Often very little attention is paid to teaching vocabulary to EFL students; as a result, students' abilities to perform all language skills are also affected.

Research on vocabulary teaching, learning, and testing has increased in the last three decades. Some studies have shown that testing ESL/EFL learners' vocabulary size can help estimate success in speaking, reading comprehension performance, writing, and academic achievement (Kameli & Baki, 2013; Khan et

al., 2018). Khan et al. (2018) found that Saudi EFL students' inability to speak English could be based on a lack of vocabulary. Their study used a questionnaire and interview for collecting data from the students and teachers, focusing on teachers' perceptions of their students' performance. Kameli and Baki (2013) also found a positive correlation between vocabulary and reading comprehension among their EFL language learners. However, these two studies and other similar ones (Li & MacGregor, 2010; Migdadi et al. 2019; Naqeeb, 2021; Sungprakul, 2016) did not focus on academic vocabulary knowledge. Hence, the current study has been designed to measure the university level EFL learners' academic vocabulary achievement.

### *Vocabulary size and an academic vocabulary level test*

Vocabulary size can be defined as "the receptive meaning recognition of the number of words that foreign language learners know at a particular level of language proficiency" (Nouri & Zerhouni, 2016, p.19). The knowledge of vocabulary can be receptive or productive (Daller et al., 2007; Nation, 2001). Research studies show that the receptive vocabulary size exceeds the productive vocabulary size by approximately 50% (Waring, 1997; Webb, 2008).

General vocabulary knowledge refers to a set of lexical items, including words, phrases and idioms, and academic vocabulary refers to words which are reasonably frequent in academic contexts but relatively uncommon in other texts (Coxhead & Nation, 2001). The Vocabulary Size Test measures the number of words second language (L2) users know (Uchihara & Clenton, 2020). Vocabulary size refers to the number of words known (Schmitt, 2014). But what vocabulary size does a learner need to be able to perform certain language related tasks? Research shows that learners need to have a vocabulary close to 8,000 word families to perform spoken and written language tasks (Nation, 2006; Nation & Beglar, 2007). This vocabulary size is said to be needed to perform receptive tasks such as reading novels and newspapers, watching movies, and listening to spoken English. But it says nothing about acquiring academic vocabulary size.

Seeing the importance of vocabulary in English language learning, studies have focused on vocabulary lists needed to be achieved by the learners from general to academic words. The first general vocabulary list was produced by West (1953). The oldest and the most influential general vocabulary wordlist is West's General Service List (GSL), which includes the 2,000 most common lexical items of written English with two levels: West 0-1000 and West 1000-2000. In an attempt to revise the GSL, Browne et al. (2013) created a New General Service List (NGSL) containing 2800 high frequency core general English words. They have also created three additional special purpose vocabulary lists: the New Academic Word List (NAWL) with 960 academic words, the TOEIC Service List (TSL) with 1200 TOEIC words and the Business Service List (BSL) containing 1700 business word families. Browne et al. (2013) argue that these word lists are said to have 99% coverage with only 1% left out. Brezina and Gablasova (2015) produced a New General Service List (new-GSL) consisting of 2,122 core vocabulary items and 2,494 lemmas. The new-GSL includes three levels: new-GSL 0-1000, new-GSL 1001-2000 and new-GSL 2001-2500, out of which the first two overlap with West's levels. Nation's (1983, 1990) Vocabulary Levels Test (VLT) instrument includes five levels of words: 2,000, 3,000, 5,000, above 5,000 (the university word level) and 10,000 words. Nation's (2001) revised version of VLT includes six levels of word frequencies in English: 1000, 2000, 3000, 4000, 5000 and 6000. Schmitt et al.'s (2001) version of VLT includes five levels of words: 2000, 3000, 5000, 10,000 and academic. With the baseline of the general vocabulary list, Coxhead (2000) created the Academic Word List (AWL) comprising 570 words that may occur in academic contexts. Thus, there have been various vocabulary lists developed by experts in the field. Out of those, VLT developed by Nation (2001) has been widely used to measure the size of learners' vocabulary (Ibrahim et al., 2013; Li & MacGregor, 2010; Naqeeb, 2021). Although there is a rich literature regarding measuring the vocabulary size, very few studies have been conducted to measure the academic vocabulary size of the EFL learners using 570 academic word families only at the university level. Hence, this study will be useful in this context.

The VLT has become a standardized vocabulary test to assess vocabulary knowledge of the learners of English. "It is a tool to measure the written receptive vocabulary knowledge, that is mainly the word knowledge required for reading" (Kremmel & Schmitt, 2018, p.1). It is the most commonly used tool for measuring the size of the EFL learners' vocabulary and has been used in multiple EFL contexts such as reading performance (Kameli & Baki, 2013; Şen & Kuleli, 2015), and vocabulary acquisition (Alqarni, 2019; Ibrahim et al., 2013; Li & Macgregor, 2010). The most common version of the VLT consists of five parts corresponding to five levels of word frequencies in English: 2000, 3000, 5000, 10,000 and academic. Among them, the academic word level includes words selected from Coxhead's (2000) AWL of 570-word

families, originally formed from 3.5 million running words of written academic text, excluding the 2000 words from the GSL (Li & MacGregor, 2010). The Academic Vocabulary Level Test 2 by Schmitt et al. (2001) contains ten items, and each item has six words with three definitions. The students are required to match each definition with the appropriate word. It contains 30 correct answers, each worth one point (see Table 1).

Vocabulary testing is a crucial aspect in teaching EFL to assess the vocabulary knowledge of the learners. Language abilities of EFL learners heavily depend on their vocabulary knowledge (Shen, 2008). There have been various studies regarding the testing of vocabulary knowledge of learners (Al-Masrai & Milton, 2012; Laufer & Ravenhorst-Kalovski, 2010; McLean et al., 2014; Sungprakul, 2016) and the results have shown varying ranges of their vocabulary knowledge. The reason why the Academic VLT is implemented in this study is that it can be more appropriate than the VST for measuring the university students' knowledge of academic vocabulary. Another reason is that this test is the latest tool for measuring the students' academic vocabulary size at the university level.

### *Previous studies*

There have been many studies on the vocabulary knowledge of students at the tertiary level. For instance, Li and MacGregor (2010) investigated the receptive vocabulary size of university level Chinese learners of English and found students achieving high scores for high-frequency words but scoring poorly for low-frequency words. Laufer and Ravenhorst-Kalovski (2010) explored the relationship between lexical text coverage, learners' vocabulary size and their reading comprehension. Their study revealed that small increases of learners' vocabulary knowledge enhanced their reading comprehension. Al-Masrai and Milton (2012) investigated the vocabulary knowledge of Saudi university EFL learners at the beginning and at the end of their university studies and found that their vocabulary size was about 2000-3000 words on entry to university and around 5000 words upon graduation. Shinichi et al. (2014) assessed the vocabulary size of Japanese university students of science and engineering in an ESP program and found that over 70% of the students tested were at the 8,000 word level or above. McLean et al. (2014) tested 3,449 Japanese university students' vocabulary size using Nation and Beglar's VST, and the results showed an average score of 3,715.20 word families. They found that there was a lack of consistent knowledge of the most frequent words of English. Sungprakul (2016) investigated the vocabulary size of first to third year English Major students at a Thai university with the aim to "establish the number of English vocabulary in the first 10000 most occurring words list that Thai EFL students at the university level know receptively" (p. 1). The results showed that students have a vocabulary knowledge of around 5800-5900 words in the first year, 6300-6600 words in the second year, 6500-7100 words in the third year, and 7300-7400 words in the fourth. Thus, the rate of vocabulary knowledge of these EFL learners increased gradually at the four different levels. Abmanan et al. (2017) studied the receptive and productive vocabulary level of diploma students in Malaysia and the findings suggested that the majority had the receptive vocabulary knowledge of between 2,000-3,000 words and around 2,000 words for productive vocabulary.

Alqarni (2019) measured the receptive vocabulary knowledge of the Saudi university students towards the end of their final semester using Nation's (2008) VLT. He assessed their receptive knowledge of word meaning using all levels including the academic word list as one of the levels. Moreover, he measured the vocabulary size of male and female students separately. His study showed that Saudi English major undergraduates' average vocabulary size was 355 in the academic vocabulary list out of 570 words. However, his study was not solely done to estimate the academic vocabulary size of the students. Rather it was just one of the levels of assessing their vocabulary achievement at the university level. Unlike Alqarni's study, this study measured knowledge of only 570 academic word families using Schmitt et al.'s (2001) Academic Vocabulary Level Test Version 2 as a tool. In this regard, this study is different from Alqarni's study.

Thus, a lot of research has been conducted measuring the vocabulary knowledge of university level ESL/EFL students. However, little research has been done to measure the size of students' academic vocabulary and no studies have been done assessing the vocabulary knowledge of university level EFL learners to date in Nepal. Therefore, the present study may fill this gap in the field of vocabulary knowledge measurement. Although VLT is widely used to assess the students' knowledge of vocabulary from school level to university level (Altalhab, 2019; Migdadi et al. 2019; Naqeeb, 2021), no study has been found in Nepal at either level. In this context, this study measured the academic vocabulary size of Nepalese university students studying at the master's level in English education in a university.



Methods and Procedures

This study used a quantitative method with an objective of measuring the academic vocabulary size of the university English Major students studying the third semester at the department of English Education at a university. The Academic Vocabulary Levels Test (AVLT) was used as a measuring tool. This quantitative study used a descriptive analysis, which “includes describing the results through means, standard deviations, and range of scores” (Creswell, 2009, p.228).

Participants

The participants of this study were 62 students in the third semester of an English Major studying at a university in Nepal. The age of the participants ranged from 23 to 27 years old. Forty-one were males and 21 females from both rural and urban areas. Their participation was voluntary. Informed consent was acquired by informing the participants orally and those who agreed took part in the test. The AVLT was presented in a Google Docs form and sent to the participants through emails and Messenger.

Instrumentation

Types of instruments most used in measuring the learners’ knowledge of receptive vocabulary size are Vocabulary Levels Test (VLT) and Vocabulary Size Test (VST) (Enayat & Amirian, 2020; Janebi Enayat et al., 2018).

The VLT used in this study involved matching the words with their definitions, measuring the knowledge level at 2000, 3000, 5000, 10,000 and academic words in English. This study used the Academic Vocabulary Level Test (AVLT) Version 2 developed by Schmitt et al. (2001) and reproduced in Schmitt (2010) as an instrument to measure the knowledge of the students of 570 academic words that may appear in academic contexts. The AVST “measures the written receptive academic vocabulary knowledge of non-native speakers of English” (Masrai & Milton, 2018, p. 47).

The test formats commonly used in studies of vocabulary size measurement include checklists (or yes/no tests), multiple choice items of various kinds, and matching of words with their definitions (Read, 1988). Table 1 below shows a typical sample test item from the Academic Vocabulary Test Version 1, where the participants write the number of the word to match its meaning (Schmitt, 2000). The options in a column on the left are words instead of definitions (Schmitt, 2010).

1. benefit	
2. labour	
3. percent	_____ work
4. principle	_____ part of 100
5. source	_____ general idea used to guide one's actions
6. survey	

Table 1: A sample item from the Academic VLT (Schmitt, 2000)

This test item was designed in a different way in Google Docs so that the students could choose the correct answer just by clicking. Here is how it was formulated.

Choose the right word that goes with its meaning.						
	benefit	labour	percent	principle	source	survey
Work						
Part of 100						
General idea used to guide one's actions						

Table 2: A sample item from the Academic VLT (modified design)

Data analysis and interpretation procedure

The data were analysed using statistical measures of percentage, mean and standard deviation. Then a Coefficient of Variation (CV) was used to determine the dispersion of marks around the mean obtained by the students. The use of a CV is a novel method of interpreting the variation of academic vocabulary knowledge of the students. CV, also known as relative standard deviation, is “defined as the sample standard deviation divided by the sample mean” (Lovie, 2005, p.318) and is expressed in percentage. It is used here to compare the variability of academic vocabulary achievement of the learners. If the value of

CV is zero, then it is interpreted as uniform, having no variation. On the contrary, the greater the value of CV, the greater the variation, which is compared from the point of zero.

Results

The results of this study showed different student performance in different word levels with a varying level of academic vocabulary knowledge. Table 3 shows that the average academic vocabulary size of the students was 435 (76.3%) words out of 570 academic word families.

Word level (570)	Number of known words	Percentage (%)
AVL	435	76.3

Table 3: Number of known words and percentage

Figure 1 shows the summary of average, median and range of the AVL of the students. As the Figure shows, out of 570 word families the average mark obtained by 62 students was 22.02, the median was 26 and the lowest mark was two whereas the highest mark was 30 out of 30 total marks. There was a total of ten sets, each having three questions worth 1-point each.

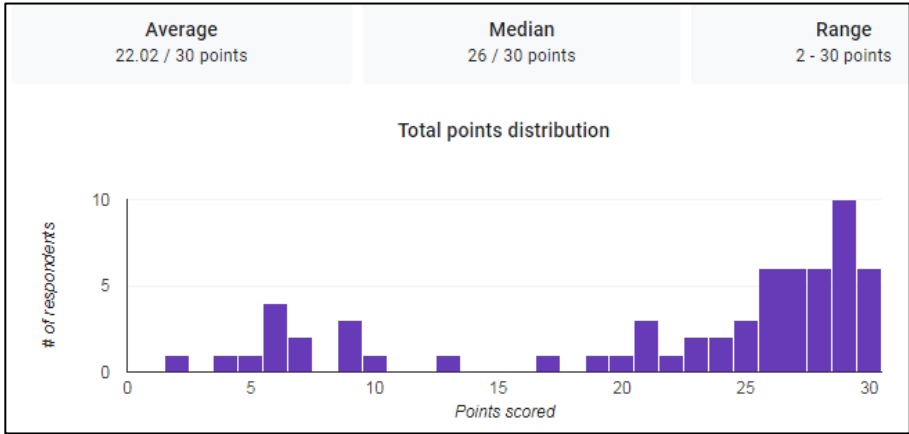


Figure 1 Summary of average, median and range of the students' AVL

Table 4 shows the mean score, standard deviation and CV of the marks obtained by the students.

Word Level	Mean Score	Standard Deviation	Coefficient of Variation (CV)
AVL	22.02	8.6	39.1

Table 4: Results of the AVL that show the mean score, standard deviation, and CV

Discussion

The objective of this study was to estimate the academic vocabulary size of the English major students studying at master's level third semester in English education in a university in Nepal. Based on the performance in the AVL Version 2 tool, the result found that the overall academic vocabulary achievement of the students was 435 (76.3%) words out of 570 words to be achieved. Academic vocabulary size had not previously been measured in a similar context including ESL/EFL students at a graduate level. However, although it was done in a different context, this result is higher than Alqarni's (2019) study in which the average academic vocabulary of the undergraduate English major students was 355 words. The academic level of the students varied between this study and Alqarni's study. Alqarni's study did not measure the variation of academic vocabulary knowledge of the participants. As such, this study presents a new area of research that signifies its novelty and originality.

This study also determined the variation of the students' academic vocabulary achievement and found that there was a wider variation ranging from 2 marks to 30 marks (see Figure 1) out of total 30 marks. It is clearer from the standard deviation result that is 8.6 when the mean was 22.02. The CV is 39.1%, which suggests that the variation is very high. It can be interpreted from this result that the students had heterogeneous knowledge with varying degree of academic vocabulary achievement. From the pedagogical and better performance point of view, this variation in academic vocabulary achievement is an issue to be

considered for further teaching and learning strategies. The cause of the variation in the students' academic vocabulary knowledge at the master's level is an issue worthy of further investigation.

One reason for this heterogeneous academic vocabulary knowledge of the students at different academic levels could be that the vocabulary achievement of the students at the bachelor's level could also be lower and at the school level could be even lower. Another reason could be that all the undergraduates may not have been serious in increasing their vocabulary knowledge. Still another reason could be that the EFL teachers may not be deliberately focusing on teaching academic vocabulary to the students.

This is the situation regarding English proficiency of the students and how it is related to vocabulary achievement. If the vocabulary knowledge of the learners is low, their listening, speaking, reading and writing proficiency can also be low (Nation, 2001). Students could face difficulties in performing better due to their low vocabulary knowledge. They need to be aware of the importance of learning vocabulary to master their English language skills. As Altalhab (2019) said, "Vocabulary is the foundation of an individual's capacity for language" (p. 55). Knowledge of academic vocabulary is beneficial for the ESL/EFL students as it shows a strong enabling function in academic communication (Coxhead, 2016; Evans & Morrison, 2011; Malmström et al. 2018). Without adequate academic vocabulary knowledge, EFL students cannot perform successfully regarding any language activity at the university level.

As discussed in the literature review section above, there has been rich body of knowledge about measuring the general vocabulary size of the university level students (Al-Masrai & Milton, 2012; Abmanan et al., 2017; Li & MacGregor, 2010; McLean et al., 2014; Shinichi et al., 2014; Sungprakul, 2016). However, no research was found measuring the academic vocabulary knowledge of EFL students. Alqarni's (2019) study mentioned above measured Saudi university English major undergraduate students' receptive vocabulary knowledge using Nation's (2008) VLT at all levels: 2000-word level, 3000-word level, 5000-word level, 10,000-word level and the Academic Word List (AWL). Unlike it, this study measured the Nepalese university graduate English major students' academic vocabulary knowledge using Schmitt et al.'s (2001) VLT of AWL only (other levels being 2000, 3000, 5000, 10,000). Therefore, this study is quite different from all the other studies reviewed above.

## Conclusion

Vocabulary size has been one of the most widely researched areas of English language proficiency in general and vocabulary achievement. However, the AVL is a less widely used tool to measure the EFL students' academic vocabulary knowledge required for the efficient and better performance in English. Considering this situation, this study measured the receptive academic vocabulary size of the master's level students of third semester with English education major at a university in Nepal. In the context of Nepal, this area of research is new since no study has been conducted so far at any level to measure the vocabulary size, and more specifically academic vocabulary size. Due to this reason, no literature is available regarding the vocabulary achievement of the students at the university level. Hence, its results appear to be beneficial due to their novelty.

As the overall achievement of academic vocabulary size was just 435 (out of 570) words (76.3%) for the students nearing the end of their master's program, it is necessary to support and guide the students at the master's level to increase the academic vocabulary power. Since these students did not reach the mastery level of academic vocabulary, the performance on the receptive academic vocabulary could be considered unsatisfactory. In Nepal the master's degree level in English Education is the highest level available and this study demonstrates that the size of students' vocabulary is not acceptable. Also the students' academic vocabulary achievement size was not uniform (Mean = 22.02, Standard Deviation = 8.6 and CV = 39.1%). The causes contributing to such variations can be an issue for further investigation.

Other limitations are that this study did not include the students studying at the first, second and fourth semesters of the graduate program, those from other majors and undergraduates were not taken as potential participants.

This study suggests that EFL students at the university level needed more explicit instruction and practice to reach the mastery level (approximately 100%) of academic vocabulary. To develop the command of academic vocabulary in the EFL learners at the university level, it is necessary to incorporate these words in the English syllabus to teach them explicitly. Both university teachers and EFL students should adopt appropriate strategies to master academic vocabulary for better academic performance.

As mentioned above, assessing the students' vocabulary knowledge is a new area for research in Nepal at both the school and the university levels. Further research should be conducted to measure the general vocabulary size of the bachelor's level students with English major or non-English major. Moreover, school level students' vocabulary knowledge could also be assessed by using the VLT as a tool.

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## Appendix

## Academic Vocabulary Version 2 (Schmitt, 2010, pp. 291-291)

1.

1 area

2 contract

\_\_\_\_\_ written agreement

3 definition

\_\_\_\_\_ way of doing something

4 evidence

\_\_\_\_\_ reason for believing something is or is not true

5 method

6 role

2.

1 debate

2 exposure

\_\_\_\_\_ plan

3 integration

\_\_\_\_\_ choice

4 option

\_\_\_\_\_ joining something into a whole

5 scheme

6 stability

3.

1 access

2 gender

\_\_\_\_\_ male or female

3 implementation

\_\_\_\_\_ study of the mind

4 license

\_\_\_\_\_ entrance or way in

5 orientation

6 psychology

4.

1 accumulation

2 edition

\_\_\_\_\_ collecting things over time

3 guarantee

\_\_\_\_\_ promise to repair a broken product

4 media

\_\_\_\_\_ feeling a strong reason or need to do something

5 motivation

6 phenomenon

5.

1 adult

2 exploitation

\_\_\_\_\_ end

3 infrastructure

\_\_\_\_\_ machine used to move people or goods

4 schedule

\_\_\_\_\_ list of things to do at certain times

5 termination

6 vehicle

6.

1 alter

2 coincide

\_\_\_\_\_ change

3 deny

\_\_\_\_\_ say something is not true

4 devote

\_\_\_\_\_ describe clearly and exactly

5 release

6 specify

7.

1 correspond

2 diminish

\_\_\_\_\_ keep

3 emerge

\_\_\_\_\_ match or be in agreement with

4 highlight

\_\_\_\_\_ give special attention to something

5 invoke

6 retain

8.

1 bond

2 channel

\_\_\_\_\_ make smaller

3 estimate

\_\_\_\_\_ guess the number or size of something

4 identify

\_\_\_\_\_ recognizing and naming a person or thing

5 mediate

6 minimize

9.

1 explicit

2 final

\_\_\_\_\_ last

3 negative

\_\_\_\_\_ stiff

4 professional

\_\_\_\_\_ meaning `no' or `not'

5 rigid

6 sole

10.

1 abstract

2 adjacent

\_\_\_\_\_ next to

3 controversial

\_\_\_\_\_ added to

4 global

\_\_\_\_\_ concerning the whole world

5 neutral

6 supplementary