# Changes in High－Frequency Vocabulary Use in Three Writing Tasks 

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## 3 つのライティングタスクにおける高頻度単語使用の変化

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#### Abstract

This study investigated vocabulary use in writing of 32 first－year Japanese ESL students at a private university in Western Japan．The participants wrote three essays under test conditions across two semesters．The essays were analyzed using VocabProfiler for use of high－frequency vocabulary（the New General Service List）．One－ way repeated measures ANOVAs were conducted to determine if changes in usage of these words across the three essays were significant．Results showed that participants statistically significantly used more high－frequency NGSL words in their second essay than their first（ 16.94 of the most frequent first thousand， 1.96 of the most frequent second thousand）．The findings suggest that the first thousand words of the NGSL can be passively acquired．However，learning the second thousand words and beyond requires more direct intervention such as through explicit instruction or more frequent opportunities for use．


Keywords：vocabulary acquisition，writing，Second Language Acquisition，English education
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## 抄 録

この研究では西日本にある私立大学で，英語を母国語としない 1 年生（ 32 名）のライ ティングにおける単語使用について調査した。2学期間にわたり試験条件下で書かれた 3 つのエッセイを VocabProfiler で高頻度語彙の使用について分析を行った。使用語の変化 に統計的有意差があるかを確認するため一元配置反復測定分散分析を行った結果，1回目 より2回目に書いたエッセイの方でより多くの高頻度 NGSL 語が使用されている（最頻出 1000 語は 16.94 語増，次の頻出 1000 語は 1.96 語増）ことが統計的に有意に示された。この結果は NGSL 最頻出 1000 語は受動的に習得可能だということを表している。しかし，頻出語彙 2000 語以上の学習については明示的な指導を与えたり，語彙を使う機会の頻度を高

めるなど，より直接的な介入が必要とされる。

キーワード：語彙習得，ライティング，第二言語習得，英語教育
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## Introduction

Vocabulary is central to language and language learning．Both instructors and learners alike instinctively understand that vocabulary is the cornerstone of language development．Wilkins（1972）famously stated that＂without grammar，very little can be conveyed，without vocabulary，nothing can be conveyed＂（p．111－112）while Lewis （1993）stressed that＂lexis is the core or heart of language＂（p．89）．In their research on vocabulary size，Nation and Waring（1997）found that native English speakers typically know approximately 20,000 word families and the ability to express ideas precisely depends on having a sufficiently developed lexicon．Similarly，studies have established clear links between vocabulary and intelligence，achievement tests，and reading comprehension（Baumann，2005）．

The importance of vocabulary，therefore，cannot be understated．Indeed，having sufficient knowledge of vocabulary and confidence in their ability to use the word correctly will determine if a learner can use a word productively in speaking or writing， or only receptively when reading or hearing it．Given that learning vocabulary is a challenging endeavor，it is important to consider which words language learners should prioritize learning．Logically，learners should study the words that have the highest chance of being encountered or needed．In short，the most important vocabulary that language learners need are the most frequent words．

The purpose of this study is to examine the level of high－frequency vocabulary used in three writing tasks（described in Methods）over one academic year．Analysis of the writing samples will indicate the extent to which the participants learned the high－ frequency vocabulary．Subsequently，these findings can inform pedagogical practice as how to better facilitate vocabulary learning of the most－needed words in English．

## Literature Review

## The Importance of Vocabulary in Writing Tasks

In the literature involving writing research，there is not a universally agreed upon definition of good writing．Several studies have attempted to clarify what good writing is by focusing on specific components such as examining the use of cohesive devices
like connectives (e.g., but, when, because, however, then, therefore) and the frequency of word repetition or the ratio of pronouns to nouns (Crossley, Kyle, \& McNamara, 2016), syntactic complexity (Crossley \& McNamara, 2014), lexical richness (Laufer, 1994), lexical complexity (Ong \& Zhang, 2010), or lexical sophistication (Guo, Crossley, \& McNamara, 2013). While there are a variety of factors that contribute to writing quality, existing research indicates that vocabulary is an underlying component.

This observation concerning the central role of vocabulary to writing quality is confirmed by several researchers. Astika (1993) found that vocabulary was more important than content, organization, language use, or mechanics in writing scores. Similarly, Santos (1988) and Jordan (1997) analyzed the ratings made by educators on student compositions. In Santos' (1988) study, professors were asked to rate the compositions on content and language. Analysis of the ratings indicated that lexical errors were rated as the most serious and detrimental to writing scores. In Jordan's (1997) study, instructors were surveyed and their responses showed that the most commonlyassociated problems regarding written work was style (92\%), grammar (77\%), and vocabulary (70\%). These studies show that vocabulary is an important predictor of writing scores.

While vocabulary is an important factor in overall writing quality, it is especially critical for second language (L2) writing. Particularly, writing in context has been shown to facilitate overall language development because of the need for a wide range of vocabulary for precise expression (Lee, 2003; Muncie, 2002). Indeed, L2 writers often struggle with accurately conveying meaning if they have a limited vocabulary or if they do not have enough facility with newly learned words (Nation, 2001). Research has shown that vocabulary is an important indicator of L2 writing development and L2 writing performance (Engber, 1995; Grant \& Ginther, 2000; Jordan, 1997). Therefore, it is of interest to investigate the vocabulary being used in writing tasks as a means of determining the vocabulary learning that is taking place and the best ways to facilitate it.

## Vocabulary Knowledge

Given that vocabulary is one of the main elements of good writing, it is important to examine how to facilitate vocabulary learning and, therefore, improve vocabulary knowledge. Vocabulary knowledge consists of receptive or productive knowledge. Essentially, receptive knowledge is the ability to understand a word when encountered via listening or reading tasks. Productive knowledge is the ability to use a word appropriately in writing or speaking tasks. However, these definitions lack the granularity needed to describe the complexity of vocabulary knowledge. Table 1 lists the aspects of word knowledge from Nation (2001).

Table 1．What is Involved in Knowing a Word


Note． $\mathrm{R}=$ receptive knowledge， $\mathrm{P}=$ productive knowledge．Adapted from Learning Vocabulary in Another Language（p．27），by I．S．P．Nation，2001，Cambridge，England：Cambridge University Press． Copyright 2001 by Cambridge University Press．

Table 2．Kinds of Vocabulary Knowledge and the Most Effective Kinds of Learning

| Kinds of knowledge | Kinds of learning | Activities |
| :---: | :---: | :---: |
| Form | Implicit learning Involving noticing | Repeated meetings as in repeated reading |
| Meaning | Strong explicit learning | Depth of processing through the use of images，elaboration，deliberate inferencing |
| Grammar Collocation | Implicit learning | Repetition |
| Constraints on use | Explicit learning | Explicit guidance and feedback |

Note．Adapted from Learning Vocabulary in Another Language（p．35），by I．S．P．Nation，2001， Cambridge，England：Cambridge University Press．Copyright 2001 by Cambridge University Press． Used with permission．

In the context of this study，the pertinent aspects of word knowledge are Form－ written，the three components of Meaning，and the three components of Use．This means that if a learner is said to know a word receptively，a general statement is being made regarding the aspects of knowledge that learner has and how it relates to listening and reading（Nation，2001）．In order for learners to use words productively，different learning activities need to be utilized．Table 2 （Nation，2001）outlines learning activities that are effective at developing different kinds of lexical knowledge．

While Table 2 above suggests learning activities to develop lexical knowledge，it
should be noted that language learners, while corroborating this framework, reported that they were also concerned with using target vocabulary correctly (Coxhead, 2008). In short, usage of vocabulary in an L2 writing task also depended on a learner's confidence in their ability to use those words correctly.

## The Importance of High-Frequency Vocabulary

In the field of lexical research, there are several compiled lists of frequently used vocabulary such as the General Service List (West, 1953), the Academic Word List (Coxhead, 2000), the New General Service List (Browne, Culligan, \& Phillips, 2013b), and the New Academic Word List (Browne, Culligan, \& Phillips, 2013a). There are also other lists containing vocabulary used for various purposes or domains such as language proficiency tests (e.g., the TOEIC Service List, Browne \& Culligan, 2016), television (Webb \& Rodgers, 2009), or specific academic disciplines (e.g., agricultural research, Martínez, Beck, \& Panza, 2009). The creation of these lists highlights the importance of different types of vocabulary for different purposes.

For many learners, the most important words to learn are arguably the words that they will see or hear, or those that they need to use. Logically, if there is little to no chance of ever encountering or needing to use a word, there is no need to learn it. It was with this reason that the General Service List (West, 1953) was compiled. Language, however, tends to change over time with new words being coined and others being rendered obsolete. In an effort to update and expand on the General Service List, Browne, Culligan, and Phillips used a section of the 2-billion-word Cambridge English Corpus to create the New General Service List (NGSL) (Browne, Culligan, and Phillips, 2013b). This sub-corpus consisted of more than 273 million words recorded from sources including magazines, journals, fiction and non-fiction literature, radio, documents, and TV. When compared to the larger Cambridge English Corpus, the NGSL provides 92.34\% coverage (i.e., overlap). The NGSL, therefore, is a list of approximately 2,800 words representing the most frequent words in the English language used across a wide variety of media types and modes of communication. Language learners who have learned all the words in the NGSL will, therefore, likely be able to understand almost all the English they encounter in common situations.

The importance of vocabulary can also be seen in virtually every language learning curriculum, with emphasis being placed on at least one type of vocabulary depending on the desired learning outcomes. Language programs focusing on developing high-frequency vocabulary typically use the New General Service List (NGSL) (Brown, Culligan, \& Phillips, 2013b), while learners aiming at studying in overseas universities might be asked to devote their time to studying the New Academic Word List (NAWL) (Browne, Culligan,
\＆Phillips，2013a）．Similarly，in countries like Japan where language proficiency test scores have become a required aspect of the job－hunting process，word lists like the TOEIC Service List（Browne \＆Culligan，2016）have a place in helping prospective graduates．

## Gap in the Literature

Research in L2 writing suggest that vocabulary is a key component of writing quality （e．g．，Astika，1993；Santos，1988）．Therefore，university learners should prioritize learning high－frequency vocabulary with the ultimate aim of being able to use those words when needed．Much of the literature involving vocabulary in written output have produced a narrow range of vocabulary（e．g．，Laufer，1998）or required the participants to write about cognitively challenging tasks（e．g．，Coxhead，2008）．These are important considerations because a narrow range of produced vocabulary would make it difficult to make any inferences regarding the transition from receptive to productive knowledge of a wider range of vocabulary（such as the NGSL）．Similarly，cognitively challenging tasks present another hurdle making it more difficult to use a wide range of vocabulary in writing．

## Research Questions

The participants＇productive vocabulary was assessed in a writing task administered three times during one academic year；before classes began in April，at the end of the first semester in July，and at the end of the second semester in January．The research questions were：

1．To what extent do the participants use high－frequency vocabulary in a writing task？

2．To what extent does the proportion of high－frequency vocabulary change after one semester when writing about the same topic？
3．To what extent does the proportion of high－frequency vocabulary change after two semesters when writing about the same topic？

## Method

## Setting and Participants

The study was conducted in a private university in western Japan．The participants $(N=32)$ were first－year Japanese learners of English and were 18 or 19 years of age．All participants had at least six years of formal education in English in Japanese junior and senior high schools combined．However，their language learning backgrounds were varied with some having lived and studied in English speaking countries or taken private English
lessons for several years, while others might have only encountered English in junior high school and high school classes. The participants' general English proficiency ranged from 155 to 705 on the Test of English for International Communication (TOEIC) (ETS, 2017), with a mean score of 383 and standard deviation of 117 .

The students were enrolled in a compulsory English program consisting of three courses in each semester. Two courses in each semester were twice a week, and one was once a week. In total, the students took five 90 -minute classes per week for 15 weeks each semester, amounting to 225 hours of English-language instruction. In general, students were told to review the NGSL and study words that were unknown or unfamiliar to them. However, there was no explicit vocabulary instruction in any of the three courses.

One of the institutional requirements is that all students must write an essay in April as part of the streaming process, at the end of the first semester in July, and at the end of the second semester in January. Their essays are collected to be used for tracking purposes and program evaluation. The participants for this study were selected from the larger body of students $(N=178)$ because they wrote about the same topic in each of the three task administrations. This criterion was important because certain words can be associated with specific topics. Therefore, students who wrote about different topics would potentially use different associated words. In turn, the results from any subsequent analyses would lack accuracy.

## Materials

All first-year students at the university $(N=178)$ were given a writing task to be completed under test conditions. The students were given 30 minutes to complete the task which had to be done by hand. A3 sheets of lined paper with the following writing prompt was distributed:

Write about a memorable event in your life. Describe who you were with, what occurred, and when and where it took place. Write about it in the order it happened and give as much information as possible. Do not use a dictionary. You have 30 minutes.

## Analysis

To analyze the words used in writing samples, it is important to consider which word counting unit to use. Common word counting units are families, types, tokens, lemmas and flemmas. Word families are the base word including inflected and derived forms. Types are the different forms of the word, that is, the number of unique words in a given text. Tokens are the total number of words. Lemmas consist of a word and its inflected, irregular, and reduced forms that are of the same part of speech. Flemmas are
similar to lemmas but groups identical forms of different parts of speech．For example，the word close can be a noun，verb，or adjective and would be three different lemmas，but be members of the same flemma（Pinchbeck，2014）．The difference between these units can be described using the following text as an example．

## I came，I saw，I analyzed．I come，I see an analysis．

In the above text，there are five word families（I，come，see，analyze，an），eight word types（I，came，saw，analyzed，come，see，an，analysis）， 12 word tokens（I，came，I，saw，I， come，I，see，an，analysis），six lemmas（I，come，see，analyze（verb），an，analyze（noun）），and five flemmas（I，come，see，analyze，an）．

Mclean（2018），who reviewed several meaning－recognition studies（Bauer \＆Nation， 1993；Mochizuki \＆Aizawa，2000；Sasao \＆Webb，2015；Schmitt \＆Meara，1997；Ward \＆Chuenjundaeng，2009），argues that the flemma is a more appropriate word counting unit for two reasons．First，the flemma groups together words that might be difficult to categorize（e．g．，teacher－like，or developmentwise）．Second，the flemma does not assume that learners are able to comprehend all inflectional and derivational forms of a word．As a result，flemmas were chosen as the most appropriate word counting unit for this study．

The participants＇writing tasks were checked using the VocabProfiler online resource （Cobb，n．d．）．VocabProfiler analyzes the text and identifies the words that fall within the first thousand words of a given word list．For this study，VocabProfiler was set to report results in one－thousand word frequency bands of the NGSL with the first thousand words denoted by NGSL＿1，the second thousand as NGSL＿2，and third thousand as NGSL＿3． Words from the New Academic Word List were not included in the analysis because these words were used too infrequently to be meaningful．See Figure 1 below for a sample of the report returned by VocabProfiler．

After this，a one－way repeated measures ANOVA was run to determine if differences in high－frequency vocabulary usage were significant across the three administrations．The assumptions for a one－way repeated measures ANOVA were checked and met．

## Results

The analysis of the high－frequency vocabulary in the writing samples collected from the participants are summarized in Table 3 below．

To determine if there was a significant difference in vocabulary use between the three written texts produced by the participants，a one－way repeated measures ANOVA was conducted for the three NGSL frequency bands．Three repeated measures ANOVAs were carried out with the factor being time and the dependent variable being the number of flemmas．


Figure 1. Sample report returned by VocabProfiler showing the number of flemmas in a text. NGSL_1 = First thousand words in the NGSL, NGSL_2 = Second thousand words in the NGSL, NGSL_3 = Third thousand words in the NGSL, NAWL = New Academic Word List.

## First Thousand NGSL Words (NGSL_1)

Descriptive statistics of the participants' first thousand NGSL words (NGSL_1) are displayed in Table 4 below. The descriptive statistics show a substantial difference in the mean number of NGSL_1 vocabulary from Time 1 to Time 2, 66.00 and 82.94, respectively.

A one-way repeated measures ANOVA determined that mean NGSL_1 vocabulary use differed statistically significantly between time points $(F(2,90.160)=34.972$, $p<.0005$, partial $\eta^{2}=.530$ ). Post hoc analysis with a Bonferroni adjustment revealed that NGSL_1 vocabulary use statistically significantly increased from Time 1 to Time 2 (16.94 (95\% CI, 12.16 to 21.72), $p<.0005$ ), and from Time 1 to Time 3 ( 17.44 ( $95 \%$ CI, 10.60 to 24.28), $p<.0005)$, but not from Time 2 to Time 3 ( 0.50 ( $95 \%$ CI, -5.72 to 6.72 ), $p=1.000$ ).

## Second Thousand NGSL Words (NGSL_2)

Descriptive statistics of the participants' second thousand NGSL words (NGSL_2)

Table 3．Number of High－Frequency NGSL Vocabulary Used by the Participants

| Participant | NGSL＿1 |  |  | NGSL＿2 |  |  | NGSL＿3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | T1 | T2 | T3 | T1 | T2 | T3 | T1 | T2 | T3 |
| 1 | 63 | 69 | 51 | 4 | 6 | 4 | 5 | 5 | 3 |
| 2 | 60 | 81 | 86 | 1 | 9 | 9 | 9 | 3 | 3 |
| 3 | 73 | 90 | 102 | 3 | 3 | 15 | 3 | 1 | 3 |
| 4 | 58 | 71 | 74 | 7 | 7 | 4 | 2 | 3 | 2 |
| 5 | 101 | 112 | 129 | 8 | 6 | 5 | 1 | 4 | 3 |
| 6 | 93 | 102 | 81 | 8 | 8 | 9 | 7 | 5 | 6 |
| 7 | 52 | 58 | 55 | 3 | 5 | 4 | 3 | 1 | 2 |
| 8 | 32 | 49 | 59 | 1 | 4 | 5 | 2 | 1 | 8 |
| 9 | 21 | 30 | 42 | 1 | 3 | 3 | 2 | 1 | 1 |
| 10 | 66 | 64 | 59 | 11 | 6 | 8 | 4 | 7 | 0 |
| 11 | 61 | 91 | 63 | 5 | 10 | 5 | 0 | 3 | 3 |
| 12 | 44 | 60 | 53 | 1 | 3 | 2 | 3 | 5 | 3 |
| 13 | 42 | 67 | 79 | 1 | 4 | 10 | 1 | 4 | 3 |
| 14 | 75 | 78 | 93 | 7 | 5 | 9 | 4 | 6 | 4 |
| 15 | 63 | 97 | 70 | 1 | 4 | 3 | 1 | 3 | 2 |
| 16 | 106 | 123 | 121 | 10 | 11 | 11 | 5 | 7 | 3 |
| 17 | 100 | 117 | 123 | 3 | 9 | 8 | 5 | 6 | 6 |
| 18 | 56 | 103 | 98 | 5 | 13 | 15 | 8 | 1 | 4 |
| 19 | 99 | 109 | 92 | 6 | 8 | 5 | 3 | 3 | 4 |
| 20 | 111 | 125 | 126 | 8 | 6 | 11 | 7 | 5 | 10 |
| 21 | 72 | 85 | 83 | 6 | 9 | 8 | 1 | 1 | 5 |
| 22 | 75 | 72 | 103 | 12 | 6 | 13 | 1 | 1 | 3 |
| 23 | 44 | 59 | 46 | 3 | 3 | 0 | 4 | 1 | 0 |
| 24 | 86 | 119 | 117 | 5 | 9 | 5 | 4 | 7 | 4 |
| 25 | 39 | 64 | 73 | 3 | 4 | 3 | 1 | 3 | 0 |
| 26 | 40 | 50 | 68 | 2 | 2 | 3 | 0 | 0 | 1 |
| 27 | 57 | 84 | 74 | 0 | 3 | 1 | 3 | 2 | 3 |
| 28 | 54 | 77 | 85 | 3 | 5 | 9 | 2 | 3 | 1 |
| 29 | 93 | 108 | 100 | 2 | 9 | 5 | 3 | 3 | 4 |
| 30 | 64 | 89 | 108 | 1 | 5 | 8 | 5 | 4 | 2 |
| 31 | 57 | 82 | 90 | 5 | 9 | 11 | 5 | 4 | 7 |
| 32 | 55 | 69 | 67 | 4 | 9 | 4 | 3 | 5 | 3 |

[^0]are displayed in Table 5 below. The descriptive statistics show a difference in the mean number of NGSL_2 vocabulary from Time 1 to Time 2, 4.38 and 6.34, respectively.

A one-way repeated measures ANOVA determined that mean NGSL_2 vocabulary use differed statistically significantly between time points $(F(2,62)=7.773, p=.001$, partial $\eta^{2}=.200$ ). Post hoc analysis with a Bonferroni adjustment revealed that NGSL_2 vocabulary use statistically significantly increased from Time 1 to Time 2 ( 1.97 (95\% CI, 0.51 to 3.43 ), $p=.005$ ), and from Time 1 to Time 3 ( $2.34(95 \% \mathrm{CI}, 0.63$ to 4.05 ), $p=.005$ ), but not from Time 2 to Time 3 ( 0.38 ( $95 \%$ CI, -1.29 to 2.04), $p=1.000$ ).

Table 4. Descriptive Statistics of the Participants' NGSL_1 Vocabulary

|  | Time 1 | Time 2 | Time 3 |
| :--- | :---: | :---: | :---: |
| Mean | 66 | 82.94 | 83.44 |
| SE | 4.04 | 4.21 | 4.32 |
| $95 \%$ CI | $[57.76,74.24]$ | $[74.36,91.52]$ | $[74.62,92.26]$ |
| SD | 22.86 | 23.8 | 24.46 |
| Skewness | 0.32 | 0.03 | 0.24 |
| SE Skewness | 0.41 | 0.41 | 0.41 |
| Kurtosis | -0.55 | -0.57 | -0.83 |
| SE Kurtosis | 0.81 | 0.81 | 0.81 |

Table 5. Descriptive Statistics of the Participants' NGSL_2 Vocabulary

|  | Time 1 | Time 2 | Time 3 |
| :--- | :---: | :---: | :---: |
| Mean | 4.38 | 6.34 | 6.72 |
| SE | 0.56 | 0.5 | 0.7 |
| $95 \%$ CI | $[3.22,5.53]$ | $[5.34,7.35]$ | $[6.72,5.31]$ |
| SD | 3.19 | 2.78 | 3.9 |
| Skewness | 0.75 | 0.41 | 0.46 |
| SE Skewness | 0.41 | 0.41 | 0.41 |
| Kurtosis | -0.18 | -0.62 | -0.47 |
| SE Kurtosis | 0.81 | 0.81 | 0.81 |

Table 6. Descriptive Statistics of the Participants' NGSL_3 Vocabulary

|  | Time 1 | Time 2 | Time 3 |
| :--- | :---: | :---: | :---: |
| Mean | 3.34 | 3.38 | 3.31 |
| SE | 0.4 | 0.36 | 0.4 |
| $95 \%$ CI | $[2.53,4.16]$ | $[2.64,4.11]$ | $[2.50,4.12]$ |
| SD | 2.27 | 2.03 | 2.25 |
| Skewness | 0.71 | 0.22 | 1.03 |
| SE Skewness | 0.41 | 0.41 | 0.41 |
| Kurtosis | 0.15 | -0.92 | 1.64 |
| SE Kurtosis | 0.81 | 0.81 | 0.81 |

## Third Thousand NGSL Words（NGSL＿3）

Descriptive statistics of the participants＇third thousand NGSL words（NGSL＿3）are displayed in Table 6 above．The descriptive statistics do not show a substantial difference in the mean number of NGSL＿3 vocabulary across the three administrations．

A one－way repeated measures ANOVA determined that mean NGSL＿3 vocabulary use did not differ statistically significantly between time points $(F(2,62)=0.009, p=.991)$ ．

## Discussion

Regarding the first research question，to what extent do the participants use high－ frequency vocabulary in a writing task，the data in Table 3 showed that use of high－ frequency NGSL vocabulary varied across participants．Unsurprisingly，the first thousand NGSL words（NGSL＿1）occurred more frequently than the second（NGSL＿2）and third thousand（NGSL＿3）words．By virtue of their categorization，it was expected that occurrence of the NGSL words would decrease proportionately with their frequency bands．However，it is interesting to note that usage of NGSL＿1 vocabulary were disproportionately higher than the NGSL＿2 and NGSL＿3，which appeared with similar frequency in the essays．This suggests that the participants did not have sufficient productive knowledge of those words or that they did not have the confidence to use lower－frequency words in the writing task．

Regarding the second research question，to what extent does the proportion of high－ frequency vocabulary change after one semester when writing about the same topic，the repeated measures ANOVA showed that there was a statistically significant increase in mean NGSL＿1 vocabulary of 16.94 words from Time 1 to Time 2．For the NGSL＿2 words， the participants also showed a statistically significant increase of 1.96 words from Time 1 to Time 2．However，changes in usage of the NGSL＿3 was not statistically significant at any time point．These results are interesting because the students did not receive explicit vocabulary instruction in any of their classes．Yet，they demonstrated greater productive knowledge of the NGSL＿1，and to a lesser extent，the NGSL＿2．This suggests that vocabulary learning and／or the increase in depth of knowledge might be taking place indirectly through a combination of the following：the amount of English encountered in classes，the English needed to complete out－of－class assignments，extracurricular activities involving English，or through independent study．Quantifying these variables is beyond the scope of this study as the instruments that were used did not seek to measure or describe them．

Regarding the third research question，to what extent does the proportion of high－ frequency vocabulary change after two semesters when writing about the same topic，the
repeated measures ANOVA did not show any statistically significant differences for any of the NGSL bands between Time 2 and Time 3. This finding suggests that vocabulary learning through the factors described above plateaus after one semester. It stands to reason that the language the students encounter in their classes does not tend to vary substantially throughout the semester. Instructors arguably have patterns of expression that, after time, can become predictable. For example, an instructor might always use the same instructions for a particular in-class activity, or they might ensure that provided instructions are comprised of only higher-frequency vocabulary. Similarly, lessons might be structured in the same way so that students repeat the same task cycles. While these would make individual instructors easier to understand once students became accustomed to their instruction, the obvious drawback to this is a stagnation in variety of language exposure. That is, the students hear the same thing many times. Repeated encounters with a word is needed in order to learn it. However, it is difficult to balance repetition with variety. As a result, for continued vocabulary development, both in terms of number of learned words and in depth of knowledge, deliberate and explicit vocabulary instruction is required.

## Conclusion

Second language learners' vocabulary knowledge affects their ability to precisely convey meaning. This study of the usage of high-frequency vocabulary in writing has attempted to examine the degree to which students use words that they are commonly expected to know. Furthermore, this study attempted to investigate the degree to which usage of these high-frequency words changed over the course of two semesters of English instruction. The results showed that the most frequent words in English (i.e., the first thousand NGSL) were readily learned by the participants as demonstrated by increased use in their second essay. The passive acquisition of the first thousand NGSL words can be attributed to the amount of English language exposure and usage in the participants' classes. However, the results also indicated that the second thousand NGSL words and beyond were more difficult to learn or use with confidence. While this finding is unsurprising, it does inform pedagogical practice as it can be concluded that the acquisition of less frequent vocabulary requires more direct intervention, such as explicit instruction or more frequent opportunities for use.

It is also worth investigating the influence of the following variables on vocabulary learning: the amount of English language classroom use (by both teacher and student), the linguistic needs to complete out-of-class assignments, social uses of English by EFL learners, and independent English language study. Furthermore, it should be noted that
the participants in Coxhead＇s（2008）study reported that they did not use particular words due to a lack of confidence in their ability to do so correctly．This has further implications regarding how to lead learners to improving their vocabulary knowledge．

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[^0]:    Note．NGSL＝New General Service List，NGSL＿1＝First thousand words in the NGSL，NGSL＿2＝ Second thousand words in the NGSL，NGSL＿3＝Third thousand words in the NGSL，Tl＝Time 1， $\mathrm{T} 2=$ Time 2， $\mathrm{T} 3=$ Time 3.

