



Idiosyncratic Development of Receptive and Free Active Vocabulary: To What Extent Do Essay Types and Receptive Vocabulary Contribute to the Lexical Richness?

Mustafa Yildiz

myildiz55@yahoo.com

Sinop University, Sinop, Turkey

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Abstract

Investigating lexical richness is a continuing concern within vocabulary studies. The present study aims to contribute to this growing area of research by exploring EFL learners' free active vocabulary by dividing them into groups based on their receptive vocabulary. It seeks to explain the role of different essay types and proficiency levels based on receptive vocabulary knowledge on learners' free active vocabulary. The study includes the works done in a 15-week academic term by 26 EFL students with C1 level English proficiency. At the beginning of the research, the participants are applied Vocabulary Size Test (Nation & Beglar, 2007) to determine their receptive vocabulary knowledge and divided into two groups according to their results from VST: the more proficient group who master 8,000 or more word families and the less proficient group who master less than 8,000 word families. Throughout the semester, they have written two essays on each of two different essay types: comparison-contrast essay and cause-effect essay. In order to determine the participants' free active vocabulary, two different scores, i.e., detailed Lexical Frequency Profile (Laufer & Nation, 1995) and condensed Lexical Frequency Profile (Laufer, 1995), are calculated in the writings of the participants. The results indicate that neither essay types nor proficiency based on receptive vocabulary knowledge has any significant effect on learners' free active vocabulary.

Keywords:

*free active
vocabulary; lexical
frequency profile;
receptive vocabulary;
vocabulary size test*

INTRODUCTION

Second language learners' interlanguage is simulated to a binary continuum with non-existent language proficiency on one end and native-like proficiency on the other (Laufer, 1994, p. 21; 1998, p. 255), being pointed to the gradual progress. Although there are many components such as language skills to this language learning process, vocabulary knowledge is directly related to foreign language proficiency and closely correlated with these language skills (Astika, 1993; Harkio & Pietilä, 2016; Laufer, 1992, 1994; Laufer & Nation, 1995; Muncie, 2002; Qian, 2002; Rashidi & Khosravi, 2010; Stæhr, 2008; 2009). Throughout the second language learning process, just as with first language acquisition, vocabulary knowledge grows incrementally. As foreign language proficiency increases, it is expected that vocabulary knowledge will also increase. In other words, the gradual increase in vocabulary knowledge will lead to an increase in foreign language proficiency.

A considerable amount of literature has been published on the relationship between vocabulary knowledge and reading skills (Harkio & Pietilä, 2016; Laufer, 1992; Qian, 2002; Rashidi & Khosravi, 2010), listening skills (Stæhr, 2009), writing skills (Astika, 1993; Laufer, 1994; Laufer & Nation, 1995; Lemmouh, 2008; Muncie, 2002), and those three language skills altogether (Stæhr, 2009). Regarding the relationship between vocabulary knowledge and reading skills, Laufer (1992) addresses the questions of how the vocabulary size of learners correlates with their reading comprehension scores and how the increase in learners' vocabulary size affects their scores in reading comprehension. The results reveal that learners' vocabulary knowledge and their reading comprehension scores highly correlate with each other. As for the contribution of the increase in vocabulary to the reading comprehension, Laufer (1992) finds that there are significant differences in reading scores of learners in two separate groups of 2,000 and 3,000 vocabulary bands. Similarly, Rashidi and Khosravi (2010) attempt to show that to what extent the depth and breadth of learners' vocabulary help to predict their reading proficiency. They highlight that learners' scores from the instruments gauging their vocabulary knowledge and their reading proficiency are highly correlated. Students with higher depth and breadth of vocabulary knowledge also score better in reading comprehension test.

With respect to the relationship between vocabulary knowledge and listening skills, Teng (2014) focuses on whether the depth and breadth of vocabulary knowledge of EFL learners correlate with their listening comprehension. The listening comprehension scores of the students in the 5,000 vocabulary level are higher than that of the students in the 3,000 vocabulary level. Also, there is a significant correlation between the vocabulary size test scores of EFL learners in the 5,000 vocabulary level, indicating the important role of vocabulary size in predicting EFL learners' listening comprehension. Similarly, Stæhr (2009) finds that although it is not as strong as the relationship between vocabulary knowledge and reading comprehension, there is a strong correlation between vocabulary and listening comprehension. Moreover, as the vocabulary size of EFL learners increases, the percentage of their listening comprehension also increases. For example, while the

learners knowing the most frequent 2,000 word families attain the mean score of 54% in the listening comprehension test, the ones who obtain the knowledge of the most frequent 10,000 word families attain the mean score of 80%. In another study, Stæhr (2008) reports on a study in which the correlation between the knowledge of vocabulary and the skills of reading, listening and writing is explored, the results of the correlation between vocabulary and listening comprehension show similarities with the one in Stæhr (2009). Although vocabulary and listening comprehension correlate significantly with each other, they display a modest correlation coefficient of 0.69. The coefficient values reflecting the correlation between vocabulary-reading and vocabulary-writing are 0.83 and 0.73, respectively.

Referring to the relationship between vocabulary knowledge and writing skills, Laufer (1994) provides an overview of that L2 learners' gradual increase in writing skills and their lexical progress are interrelated to each other (p. 21). It can be inferred that as the students' knowledge of vocabulary increases, their writing performance or success in writing will increase in direct proportion. In a similar way, Laufer and Nation (1995) assert that demanding situations which require learners to use what they know help us to see the close connection between their passive vocabulary size and how rich their use of vocabulary is by triggering their language production (p. 308). The literature provides empirical evidence for that claim. For example, Astika (1993) explores the assessment of language learners' writing performance based on an analytical scoring technique using the scoring rubric ESL Composition Profile (Jacobs et al., 1981) consisting of five different components such as Content, Organization, Vocabulary, Language Use, and Mechanics. Astika (1993) further investigates to what extent these five components contribute to the total score variance. The results reveal that vocabulary appears as the variable which has the highest relative weight in measuring students' writing performance. Muncie (2002) seeks to examine the influence of the process writing approach on learners' productive use of vocabulary by comparing timed compositions to first and final drafts of further compositions. The results indicate that although the three compared compositions do not show any significant difference in terms of their LFP scores, there is evidence that more sophisticated words which are used less frequently are used more in final drafts compared to timed compositions and first drafts. Gregori-Signes and Clavel-Arroitia (2015) aim at testing the reliability of LFP by gauging two different writing performances of the same students in a semester. Namely, they search for whether the lexical richness in learners' writings significantly changes in a period of one semester. They also compare two groups of students with different English proficiency to test whether LFP really works to detect the differences between different proficiency groups. They find that LFP provides consistent results across two pieces of writings of the same learners and discriminates between different groups of learners with different English proficiency.

To conclude this section, much of the current literature on vocabulary pays particular attention to the relationship between receptive/productive vocabulary knowledge and language skills. As demonstrated in the above-mentioned research, there is a consensus among research that vocabulary knowledge and foreign language

proficiency are directly related to each other. It has been observed that as the level of foreign language proficiency increases, the vocabulary knowledge also increases in direct proportion. Increasing vocabulary knowledge also plays an important role in the development of 4 language skills, especially reading and writing. As noted by the studies reviewed above, vocabulary is a major area of interest within the field of English Language Teaching and there has been a surge of interest in its investigation. Although it is now well established from a variety of studies that vocabulary considerably contributes to the overall foreign language proficiency, what is not yet clear is the extent to which receptive vocabulary correlates productive vocabulary. In the present study, the researcher aims to explore to what extent the increase in the passive vocabulary of the participants shows itself in their free active vocabulary. The researcher also aims to reveal whether learners' writings in different essay types differ in terms of free active vocabulary. In order to achieve these aims, the study seeks to answer the following research questions:

- 1) Does the participants' use of free active vocabulary differ in different essay types?
- 2) Is there any divergence in participants' use of free active vocabulary when two different proficiency groups are formed based on their receptive vocabulary knowledge?

METHOD

The aim of the present study is twofold. Firstly, the study investigates whether the participants' free active vocabulary use varies in two different essay types. Secondly, it also searches for the relationship between EFL learners' receptive vocabulary size and the lexical richness in their writings gauged by both detailed Lexical Frequency Profile (Laufer & Nation, 1995) and condensed LFP profile (Laufer, 1995). More specifically, the researcher aims at finding whether EFL learners' free active vocabulary use in their essays and their passive vocabulary knowledge correlate with each other or not. While doing this, two different proficiency groups and their writings on two different essay types are compared to see whether the groups significantly differ from each other with regard to the lexical richness in their writings.

Procedure

The study includes student works done throughout a semester. At the beginning of the semester, 26 EFL learners studying English Language Teaching are recruited for the study and administered Vocabulary Size Test (Nation & Beglar, 2007) in order to determine their passive vocabulary knowledge. VST (Nation & Beglar, 2007), which is described as "a proficiency measure to determine how much vocabulary learners know" (p. 10), helps to measure test-takers' receptive vocabulary size between the first and 14th 1,000 most frequent word families.

In order to measure learners' free active vocabulary knowledge, Lexical Frequency Profile scores of their writings are computed. Laufer (1994) describes Lexical Frequency Profile as a measure of lexical richness to gauge learners' productive vocabulary size (p. 23). Each of the LFP calculations is analyzed by means of Web VP Classic on

www.lextutor.ca (Cobb, accessed 15 July 2021). LFP of a piece of writing is calculated based on the percentage of words belonging to four different frequency bands: the first 1,000 most frequent words, the second 1,000 most frequent words, the words belonging to the UWL-University World List (Xue & Nation, 1984), and the ones not included in any of the aforementioned lists. To illustrate the calculations for LFP scores, take an essay of 500 words as an example. 400 of them are among the first 1,000 most frequent words, 50 of them are among the second 1,000 most frequent words and 40 of them are among the UWL-University World List. Suppose the remaining 10 words do not belong to any of these 3 groups. These raw numbers must be converted into percentages to calculate the LFP of this essay, which appears to be 80%, 10%, 8%, and 2% for each of the frequency bands, respectively. In order to explore learners' productive academic vocabulary in the present study, Academic Word List (Coxhead, 2000), which is more up-to-date compared to University Word List (Xue & Nation, 1984) and contains 570 word families frequently used in academic texts, has been used instead of the UWL.

Laufer (1995) posits that while investigating learners' free active vocabulary by means of calculating LFP scores in their writings in a detailed way as explained in the above paragraph, a condensed LFP profile can be used by calculating the sum of the percentages of Academic Word List and Not in the Lists bands. Thus, instead of several measures representing the lexical richness of a piece of writing, the percentage of beyond-basic vocabulary as a single measure helps the researchers correlate learners' lexical richness with a number of independent variables. Also, as Beyond 2,000 score represents the sum of the percentage of word usage from the AWL and Off-List bands, it is likely to mention that the higher the number of words used from these two lists, the higher the lexical richness of the learners' writings. In the current study, in order to reveal the lexical richness in the participants' writings, both Lexical Frequency Profile (Laufer & Nation, 1995) indicating four different types of word bands and Condensed LFP Profile (Laufer, 1995) reflecting the sum of both basic and beyond 2,000 words are computed to see any difference occurs between the results obtained using two different calculation methods. Namely, the existing data from the participants' writings has been used to reanalyze their free active vocabulary.

To test whether different essay types written by the same participants differ in terms of their Lexical Frequency Profile scores, the participants were expected to write on two different essay types: comparison-contrast essay and cause-effect essay. Throughout the semester, the participants were asked to write two essays from each essay type. They wrote comparison-contrast essays at weeks 5 and 8 of a 15-week semester; and cause-effect essays in the 13th and 15th weeks. The optional topics for comparison-contrast essays and cause-effect essays are provided below:

Topics for comparison-contrast essays

- 1) -written language vs. speech language
- 2) -virtual vs. real classrooms
- 3) -left-brain and right-brain dominance
- 4) -social media and face-to-face communication
- 5) -digital textbooks and hard copies

Topics for cause-effect essays

- 1) -effects of online shopping addiction
- 2) -causes of cheating and violating academic integrity
- 3) -causes of illiteracy
- 4) -effects of drug abuse on society

There are controversial views towards what percentage of the words in a text should be mastered in order to read and understand it without any help or getting stuck. Laufer (1989) claims that a reader's current vocabulary should cover 95% of the running words in a text. Similarly, Nation (2006) puts forward that the coverage of 98% of running words in a text, which requires the mastery of almost 8,000 word families, leads learners to an adequate comprehension. Similarly, Hu and Nation (2000) assert that knowing 98% of the words that make up a text provides an unassisted comprehension task for a learner. As mentioned in Nation (2006) and Hu and Nation (2000), it seems that in order to adequately and independently fulfill a comprehension task without assistance, the knowledge of 8,000 word families appears as a threshold. Therefore, one of the reasons to measure learners' receptive vocabulary using the Vocabulary Size Test (Nation & Beglar, 2007) is to predict how close learners are to this threshold. In order to reveal if there is a relationship between learners' proficiency based on their receptive vocabulary knowledge and use of free active vocabulary, the participants are divided into two proficiency groups which are under and above 8,000 word families based on the results from the Vocabulary Size Test applied at the beginning of the research.

RESULTS

Table 1: Distribution of the scores obtained from Vocabulary Size Test (Nation & Beglar, 2007)

Word families	Frequency	Percent	Cumulative Percent
5600	1	3,8	3,8
5900	3	11,5	15,4
6500	1	3,8	19,2
7200	1	3,8	23,1
7300	2	7,7	30,8
7400	1	3,8	34,6
7600	1	3,8	38,5
8000	1	3,8	42,3
8400	1	3,8	46,2
8500	2	7,7	53,8
8900	1	3,8	57,7
9500	2	7,7	65,4
9600	1	3,8	69,2
9900	1	3,8	73,1
10300	2	7,7	80,8
10700	2	7,7	88,5
10800	1	3,8	92,3
11100	1	3,8	96,2
11800	1	3,8	100,0
Total	26	100,0	

The present study was carried out to analyze whether the participants' free active vocabulary use differed according to the type of essay they wrote and their proficiency levels based on passive vocabulary knowledge. At the beginning of the process, learners' passive vocabulary was measured using the Vocabulary Size Test (Nation & Beglar, 2007). The distribution of the scores obtained by the students from VST reflecting the number of word families they know is given in Table 1.

Table 2 summarizes the descriptive statistics related to the participants' scores from the VST.

Table 2: Descriptive statistics of Vocabulary Size Test (Nation & Beglar, 2007)

	N	Minimum	Maximum	Mean	SD
word_families	26	5600	11800	8580,77	1830,851

It can be seen from the data in Table 1&2 that while the participant with the least vocabulary knowledge mastered 5,600 word families, the one with the largest vocabulary size mastered 11,800 word families. The mean number of passive vocabulary of the participants is 8,580.77 which is above the level considered to be threshold (8,000 word families) for dividing learners as two different proficiency groups.

Further statistical analysis reveals that the mean number of word families that low proficiency groups with less than 8,000 passive vocabulary know is 6,660 while the participants with higher proficiency level know 9,781.25 word families on average.

Table 3: Distribution of Vocabulary Size Test scores across proficiency group

	participants	N	Mean	SD	Mean Difference	t	Sig.(2-tailed)
VST_scores	under 8000	10	6660,00	776,316	-3121,250	-7,767	,000
	above 8000	16	9781,25	1108,283			

Looking at Table 3 above, it is apparent that there is statistically significant difference between the groups with regard to their passive vocabulary knowledge ($t(24) = -7,767 ; p < .05$).

Does the participants' use of free active vocabulary differ in different essay types?

In order to respond to the first research question, paired samples t-test was applied to the essays on two different essay types written by the same participants. The LFP scores of the essays were compared with each other. Table 4 presents the comparison results of the participants' LFP scores by essay types.

As shown in Table 4, the detailed LFP scores of the participants differ statistically at the level of the second most frequent 1,000 word band. The mean number of the words in the second most frequent 1,000 word level used in the cause-effect essays ($M=6,1906$) significantly outnumbers the average number of the ones ($M=5,0402$) in the same level in the comparison-contrast essays. The mean difference of use in the same word level

between two essay types is statistically significant ($t(25) = -2,992$; $p < .05$). Furthermore, neither the participants' use of vocabulary in the first most frequent 1,000 word band nor their mean number of use of vocabulary from the AWL list nor the mean number of use of off-list vocabulary differs significantly from each other. As indicated in the very slight mean difference, the mean numbers of the words in the first most frequent 1,000 word level used in the comparison-contrast essays ($M=79,2035$) and cause-effect essays ($M=79,1640$) show similarity. Similarly, although the mean difference increases, the participants' mean number of use of the words in the AWL list in both the comparison-contrast essays ($M=9,1748$) and cause-effect essays ($M=8,7460$) do not differ significantly from each other. The use of off-list words is also similar to the previous ones. Although the mean number of off-list words used in comparison essays ($M=6,8390$) is higher than that of off-list words used in cause-effect essays ($M=6,2167$), the mean difference does not lead to any significant difference.

Table 4: Comparison of LFP scores by essay types

	Mean	N	SD	t	Sig. (2-tailed)
Comp_K1	79,2035	26	3,62616	,049	,962
Effect_K1	79,1640	26	3,42643		
Comp_K2	5,0402	26	1,90298	-2,992	,006
Effect_K2	6,1906	26	1,46142		
Comp_AWL	9,1748	26	2,40744	,825	,417
Effect_AWL	8,7460	26	1,97188		
Comp_Off_List	6,8390	26	2,32922	,742	,465
Effect_Off_List	6,2167	26	2,98961		

Table 5 displays the further statistical analysis which is concerned with the participants' condensed LFP scores across two different essay types.

Table 5: Comparison of condensed LFP scores by essay types

	Mean	N	SD	t	Sig.(2-tailed)
basic2000_comp	42,1244	26	1,55801	-1,692	,103
basic2000_effect	42,6796	26	1,47812		
beyond2000_comp	8,0094	26	1,67381	1,251	,222
beyond2000_effect	7,4838	26	1,92182		

As provided in Table 5, neither the participants' use of vocabulary at the level of the basic 2,000 vocabulary ($M=42,12$ vs. $M=42,67$ $t(24) = -1,692$; $p > .05$ $p = ,103$) nor their mean number of use from the beyond 2000 vocabulary ($M=8,00$ vs. $M=7,48$ $t(24) = 1,251$; $p > .05$ $p = ,222$) differs significantly from each other. Data from this table can also be compared with the data in Table 4. Although there is a statistical difference between two different essay types at the second most frequent 1,000 word band in the analysis of

detailed LFP calculations shown in Table 4 above, the participants' condensed LFP scores of basic 2,000 vocabulary resemble each other.

Is there a divergence in participants' use of free active vocabulary when two different proficiency groups are formed based on their receptive vocabulary knowledge?

In order to respond to the second research question, the participants were divided into two different proficiency groups according to their VST scores. Then, the LFP scores in the essays they wrote were compared with each other. The LFP scores obtained from the essays were compared by applying the independent samples t-test. Table 6 displays the comparison results of the LFP scores in the essays by proficiency based on the participants' receptive vocabulary knowledge.

Table 6: Comparison of LFP scores by proficiency level

	Participants	N	Mean	Mean Difference	SD	t	Sig. (2-tailed)
Comp_K1	under 8000	10	80,0130	1,3155	4,28679	,896	,379
	above 8000	16	78,6975				
Comp_K2	under 8000	10	4,1935	-1,37587	,65890	-2,307	,033
	above 8000	16	5,5694				
Comp_AWL	under 8000	10	9,0105	-,26700	3,07376	-,245	,810
	above 8000	16	9,2775				
Comp_Off_List	under 8000	10	6,7820	-,09269	2,25372	-,097	,924
	above 8000	16	6,8747				
Effect_K1	under 8000	10	78,6965	-,75975	3,22642	-,542	,593
	above 8000	16	79,4563				
Effect_K2	under 8000	10	6,1715	-,031	1,80465	-,052	,959
	above 8000	16	6,2025				
Effect_AWL	under 8000	10	9,2770	,86294	1,80767	1,090	,287
	above 8000	16	8,4141				
Effect_Off_List	under 8000	10	5,8540	-,58944	2,17936	-,482	,635
	above 8000	16	6,4434				

Table 6 illustrates that the participants' LFP scores in the comparison-contrast essay type differ statistically. While writing comparison-contrast essays, the average number of use of the most frequent second 1,000 words of the participants with less proficiency (M=4,1935) is significantly less than that of the participants with higher proficiency (M=5,5694). Although other results did not show statistically significant differences, the scores obtained from the essays written in the comparison-contrast essay type are consistent with the participants' level of proficiency based on their receptive vocabulary knowledge. In the comparison-contrast essay type, the number of words used from the most frequent first 1,000 word band decreases as the participants' proficiency levels increase (M=78,69 vs. M=80,01). Similarly, as the level of proficiency increases, the number of words used in comparison-contrast essays included in the most frequent second 1,000 word group significantly increases (M=4,19 vs. M=5,56 $t(25) = -2,307$; $p < .05$). In addition, the number of words from the AWL list used by the participants with higher

proficiency is higher than that used by the ones with lower proficiency level ($M=9,01$ vs. $M=9,27$). Furthermore, considering the use of words in the off-list word band, more proficient participants' average of word usage from this list slightly outnumbers the average usage of words from the same list by less proficient participants ($M=6,78$ vs. $M=6,87$).

The consistency between the participants' proficiency based on receptive vocabulary knowledge and their free active vocabulary use in the comparison-contrast essay type mentioned above is not reflected in the LFP scores of the cause-effect essays. In stark contrast to the results in comparison-contrast essay type and contrary to expectations, the number of words used from the most frequent first 1,000 words in the cause-effect essay type does not decrease as the proficiency levels of the participants increase ($M=78,69$ vs. $M=79,45$). In a similar vein, the number of words used from the AWL also decreases as the proficiency levels of the participants increase ($M=9,27$ vs. $M=8,41$). In this respect, the results obtained from the essays written in the cause-effect essay type based on the proficiency levels of the participants show inconsistency. However, similar to the essays written in comparison-contrast essay type, as the learners' proficiency level increases, the frequency of words included in the most frequent second 1,000 word group also increases in cause-effect essay type ($M=6,17$ vs. $M=6,20$). Similarly, in the cause-effect essay type, the increasing proficiency levels of the participants and the increase in the use of words from the off-list group are directly proportional to each other ($M=5,85$ vs. $M=6,44$).

Further statistical analysis indicated in Table 7 reveals the comparison results of the condensed LFP scores in the essays by proficiency based on participants' receptive vocabulary knowledge.

Table 7: Comparison of condensed LFP scores by proficiency level

	participants	N	Mean	Mean Difference	SD	t	Sig.(2-tailed)
basic2000_comp	under8000	10	42,1060	-,02994	2,05165	-,042	,967
	above8000	16	42,1359				
basic2000_effect	under8000	10	42,4370	-,39425	1,09170	-,654	,519
	above8000	16	42,8313				
beyond2000_comp	under8000	10	7,8985	-,18025	2,05311	-,262	,795
	above8000	16	8,0788				
beyond2000_effect	under8000	10	7,5685	,13756	1,09163	,174	,863
	above8000	16	7,4309				

As presented in Table 7, neither the participants' use of vocabulary at the level of the basic 2,000 vocabulary nor their average number of use from the beyond 2,000 vocabulary in both of the essay types differs significantly from each other. As shown in Table 6, in the analysis of detailed LFP calculations, although the average number of word use from the most frequent second 1,000 word band of the participants with less proficiency ($M=4,1935$) is significantly less than that of the participants with higher

proficiency ($M=5,5694$) in comparison-contrast essay type, their condensed LFP scores of basic 2,000 vocabulary in the same essay type do not differentiate from each other ($t(24)=-,042$; $p > .05$ $p=,967$).

DISCUSSION

The current study aimed to investigate the effects of proficiency based on receptive vocabulary knowledge and essay type on participants' free active vocabulary. The results indicated that both of the independent variables have negligible effects on participants' free active vocabulary. The detailed LFP scores showed that the vocabulary use of the participants in different essay types was similar to each other, except for the use of words from the most frequent second 1,000 word band. The use of the words included in the most frequent second 1,000 word group in the cause-effect essay type was significantly more than those used in the comparison-contrast essay type. However, the participants' vocabulary use at all other frequency levels was completely similar to each other. In addition to all this, the results based on condensed LFP calculations indicated that essay type has no effect on participants' free active vocabulary.

Regarding the validation of LFP, Laufer and Nation (1995) assert that LFP can be considered reliable if the LFP results remain stable in different writing performances of the same student. Namely, if the LFP results of two essays written by the same student on two different topics at the same period of time are similar, it can be claimed that the student's writing performance reflects his/her lexical richness. The results related to the first research question in the present study are in agreement with Laufer and Nation's (1995) assertion. Although the compositions written by the participants over a period of one semester are on different essay types and on different topics, the participants' free active vocabulary is consistent with each other. It can thus be suggested that the participants' LFP scores reflect their actual lexical richness.

Regarding the effects of proficiency based on participants' receptive vocabulary knowledge on their free active vocabulary, it can be inferred that participants' receptive vocabulary knowledge has almost no effect on their free active vocabulary. Based on the detailed LFP scores, in comparison-contrast essay type, the participants with two different proficiency levels differ significantly in the use of words from the most frequent second 1,000 word band. Apart from this, free active vocabulary use of groups with different proficiency levels is similar at all frequency bands. This finding is broadly supported by the reanalysis of the data according to the condensed LFP calculations. Both basic and beyond 2,000 LFP scores of the participants confirm that the distinction of proficiency level based on receptive vocabulary does not cause any significant difference on the participants' free active vocabulary.

Laufer and Nation (1995) expect a significant correlation between LFP scores and Vocabulary Levels Test that the learners with higher lexical frequency profile scores should also master more rarely used words, namely the less frequent words on Vocabulary Levels Test. In a way, LFP value is a measurement tool that can be used to distinguish different proficiency groups because vocabulary is directly related to language proficiency (p. 313). However, in the current study, it can be inferred from the results related to the second research question that an increase in passive vocabulary may not result in an increase in free active vocabulary. Supporting the results of the present study, Laufer and Paribakht (1998) assert that previous studies have been insufficient to explain "whether growth in passive vocabulary automatically results in growth in active

vocabulary, or whether the gap between the two remains stable or changes over time” (p. 369). They compare EFL learners to ESL learners to see the relationship between their passive, controlled active, and free active vocabulary knowledge. They find that although the passive and controlled active vocabulary of ESL students are higher than that of EFL students, their free active vocabulary is almost identical. In a similar vein, the results of the present study imply that the increase in passive vocabulary does not necessarily mean an increase in the use of free active vocabulary. Similarly, Laufer (1998) finds that the additional year of instruction causes a significant increase in learners’ passive and controlled active vocabulary. Yet, this one-year difference between the two groups does not lead to any difference in their free active vocabulary. As a result, both Laufer and Paribakth (1998) and Laufer (1998) conclude that passive, controlled active and free active vocabulary knowledge develop at different rates. Various independent variables such as additional year of instruction in Laufer (1998) and a larger passive vocabulary in Laufer and Paribakth (1998) do not necessarily mean that free active vocabulary improves similarly and at the same pace as passive and controlled active vocabulary do.

The criteria that are considered when grouping students according to their proficiency levels are directly effective in seeing the potential free active vocabulary difference between the groups. Although a grouping based on receptive vocabulary knowledge on its own does not help to distinguish between students’ free active vocabulary, there is some evidence to suggest that learners’ free active vocabulary changes according to their overall English proficiency level. Gregori-Signes and Clavel-Arroitia (2015) illustrate this point clearly. They divide students into groups according to their overall proficiency level based on CEFR framework as B1 and C2 learners. The comparison of the essays written by two groups with B1 level and a group of C2 level students in terms of LFP scores indicates that the students with B1 proficiency level make similar progress in terms of free active vocabulary use. However, LFP scores of C2 level students differ significantly from those of students with lower proficiency levels. In the present study, the participants studied in the preparatory class the previous year and successfully completed the B2 level. Therefore, the participants’ proficiency level is assumed to be C1 level. Similar to Gregori-Signes and Clavel-Arroitia (2015) in which B1-level learners show similar progress in free active vocabulary, the participants in the current study who have the same proficiency level according to the CEFR framework do not differentiate in use of free active vocabulary. This may suggest a weak link between the size of receptive vocabulary and the richness of free active vocabulary. It can even be inferred that distinguishing the level of proficiency among the participants according to the CEFR framework may help better to obtain more meaningful results related to the richness of free active vocabulary.

CONCLUSION

The present study was designed to determine the effect of different essay types and proficiency based on receptive vocabulary on EFL learners’ lexical richness in their writings. The first major finding was that although the essay types and topics change, the lexical richness of the essays written in a short period of time is consistent with each other. Taken together with Laufer and Nation (1995), in which they claim that if the lexical richness in the essays written by the same learners in short intervals is similar, the LFP calculation is valid in revealing learners’ free active vocabulary, it can be claimed

that the participants' LFP scores are valid in reflecting their lexical richness in their writings.

The second major finding was that the free active vocabulary of the participants who are divided into proficiency groups based on their passive vocabulary is largely similar. Although it is useful to divide learners into groups to see their lexical richness according to their proficiency levels based on CEFR framework (Gregori-Signes & Clavel-Arroitia, 2015), grouping participants, e.g., by passive vocabulary knowledge as in the present study and by the year of instruction they get as in Laufer (1998), does not lead us to the conclusion that an increase in proficiency will also lead to an increase in lexical richness in learners' writings under all circumstances. Contrary to the predominant opinion in the literature claiming that when students' proficiency level increases, their vocabulary knowledge also increases, the principal implication of the second major finding in the present study is two-fold: Firstly, the factors taken into account when grouping students according to their proficiency level should be reconsidered. Secondly, the development of free active vocabulary is truly idiosyncratic and it is not likely to make inferences about the lexical richness of the students purely depending on the increase or decrease in their passive vocabulary knowledge.

The implications stated above might provide the following insights for future research: Further research should be undertaken to explore the interplay between productive vocabulary knowledge and lexical richness in learner essays. Such a study would be effective to see the effects of productive vocabulary on learners' lexical richness in their writings. It can also have a critical role in comparing the effects of passive vocabulary and active vocabulary on lexical richness.

REFERENCES

- Astika, G. G. (1993). Analytical assessment of foreign student's writing. *RELC Journal*, 24, 61-70. <http://dx.doi.org/10.1177/003368829302400104>
- Cobb, T. Web VP Classic v.4 [computer program]. Accessed 15 July 2021 at <https://www.lex tutor.ca/vp/eng/>
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34, 213-238. <https://doi.org/10.2307/3587951>
- Gregori-Signes, C., & Clavel-Arroitia, B. (2015). Analysing lexical density and lexical diversity in university students' written discourse. 7th International Conference on Corpus Linguistics: Current Work in Corpus Linguistics: Working with Traditionally-conceived Corpora and Beyond (CILC 2015). *Procedia - Social and Behavioral Sciences*, 198, 546 – 556. <https://doi.org/10.1016/j.sbspro.2015.07.47>
- Harkio, N., & Pietilä, P. (2016). The role of vocabulary breadth and depth in reading comprehension: A quantitative study of Finnish EFL learners. *Journal of Language Teaching and Research*, 7(6), 1079-1088. <http://dx.doi.org/10.17507/jltr.0706.03>
- Hu, M., & Nation, I. S. P. (2000). Vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13(1), 403-430. <http://dx.doi.org/10.26686/wgtn.12560354>
- Jacobs, H.L., Zingraf, S.A., Wormuth, D.R., Hartfiel, V.F., & Hughey, J.B. (1981). *Testing ESL composition*. Rowley, MA: Newbury House Publishers.
- Laufer, B. (1989). What percentage of text is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Special language: From humans thinking to thinking machines*, 316-323. Clevedon, UK: Multilingual Matters.

- Laufer, B. (1992). How much lexis is necessary for reading comprehension? In P.J.L. Arnaud & H. Be'joint (Eds.), *Vocabulary and Applied Linguistics*, 126–132. London: Macmillan.
- Laufer, B. (1994). The lexical profile of second language writing: Does it change over time? *RELC Journal*, 25(2), 21-33. <https://doi.org/10.1177/003368829402500202>
- Laufer, B. (1995). Beyond 2000: A measure of productive lexicon in a second language. In L. Eubank, L. Selinker & M. S. Smith (Eds.), *The Current State of Interlanguage*, 265-272. Amsterdam: John Benjamins Publishing Company.
- Laufer, B. (1998). The development of passive and active vocabulary in a second language: Same or different? *Applied Linguistics*, 19(2), 255-271. <https://doi.org/10.1093/applin/19.2.255>
- Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, 16(3), 307-322. <http://dx.doi.org/10.1093/applin/16.3.307>
- Laufer, B., & Paribakht, T. S. (1998). The relationship between passive and active vocabularies: Effects of language learning context. *Language Learning*, 48(3), 365-391. <https://doi.org/10.1111/0023-8333.00046>
- Lemmouh, Z. (2008). The relationship between grades and the lexical richness of student essays. *Nordic Journal of English Studies*, 7(3), 163-180. <http://doi.org/10.35360/njes.106>
- Muncie, J. (2002). Process writing and vocabulary development: Comparing Lexical Frequency Profiles across drafts. *System*, 30, 225-235. [http://dx.doi.org/10.1016/S0346-251X\(02\)00006-4](http://dx.doi.org/10.1016/S0346-251X(02)00006-4)
- Nation, I.S.P. (2006). How large a vocabulary needed for reading and listening? *Canadian Modern Language Review*, 63, 59-82. <http://dx.doi.org/10.1353/cml.2006.0049>
- Nation, I.S.P., & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*, 31(7), 9-13.
- Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52(3), 513–536. <https://doi.org/10.1111/1467-9922.00193>
- Rashidi, N., & Khosravi, N. (2010). Assessing the role of depth and breadth of vocabulary knowledge in reading comprehension of Iranian EFL learners. *Journal of Pan-Pacific Association of Applied Linguistics*, 14(1), 81-108.
- Stæhr, L.S. (2008). Vocabulary size and the skills of listening, reading and writing, *The Language Learning Journal*, 36(2), 139-152, <https://doi.org/10.1080/09571730802389975>
- Stæhr, L.S. (2009). Vocabulary knowledge and advanced listening comprehension in English as a foreign language. *Studies in Second Language Acquisition*, 31(4), 577-607. <https://doi.org/10.1017/S0272263109990039>
- Teng, F. (2014). Assessing the depth and breadth of vocabulary knowledge with listening comprehension. *PASAA*, 48, 29-56.
- Xue G., & Nation, I. S P. (1984). A university word list. *Language Learning and Communication*, 3(2), 215-229.