

Research paper

Identifying Threshold Vocabulary for IELTS Writing Skill

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Etemadzadeh, A., & Ashraf., H. (2025). Identifying Threshold Vocabulary for IELTS Writing Skill. *Journal of new advances in English Language Teaching and Applied Linguistics*, 7(2), 68-
Doi:10.22034/Jeltal.2025.7.2.4

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Abstract

This paper reports on empirical research that endeavors to investigate the threshold vocabulary knowledge for writing section of IELTS. In other words, how many vocabulary is required for a L2 learner to get 7 in IELTS writing section? The scarcity of studies on investigating the relationship between productive vocabulary size and writing skills prompted us to do this study on 131 postgraduate international students studying in Universiti Teknologi Malaysia (UTM) who obtained the minimum score (i.e., 6) in IELTS as a requirement for enrollment. PVLT was given to participants. Then, participants' scores from the test were correlated with their score in the writing section of IELTS. The results revealed significant correlation coefficients between productive vocabulary size and academic writing skills. Moreover, the findings of Multiple Regression indicated that productive vocabulary levels test (PVLT) could be a good predictor for IELTS academic writing. Finally, by use of the participants' mean score in different levels of PVLT and the Zimmerman formula for calculating the number of vocabulary at each level revealed a threshold of 2000 words for a L2 learner to get 7 in IELTS writing section. The findings drawn from the study have some pedagogical implications useful for curriculum planning, decision making, and classroom implementation.

Keywords: *Vocabulary Acquisition, PVLT, Threshold, IELTS Writing*

Received: 2025-06-22 **Revised** 2025-09-02 **Accepted** 2025-09-20

Introduction

As witnessed in previous studies, it seems that vocabulary learning plays a significant role in acquiring second language skills. Hence, its investigation may be insightful and may result in a better understanding of the language teaching-learning process. In other words, vocabulary learning is so important that one may go so far as to claim a major facilitative role for it. In addition, as Nation and Laufer (1995: 2) indicate “vocabulary is not usually learned for its own sake”, an important goal of learning vocabulary is to use vocabulary knowledge communicatively. On the importance of the role of vocabulary in communication, Wilkins (1972: 111) notes that “Without grammar very little can be conveyed, without vocabulary nothing can be conveyed”. People who were involved in language teaching/learning processes agree on the essential role of vocabulary as a part of language learning mastery. This role is more apparent when learners try to use their language in real contexts and it is usually evident in the fact that “learners carry around dictionaries and not grammar books” (Schmitt, 2010: 4).

Most importantly, some other studies in this field have revealed the fact that lack of vocabulary knowledge largely makes writing activity difficult, “particularly if the writer is a L2 learner with a relatively small vocabulary compared with native speakers” (Laufer 2016: 307). In other words, “lack of vocabulary is considered to be the factor that makes writing in a foreign language most difficult” (Lee & Yen, 2024: 296). Amengual-Pizarro (2023) also considered vocabulary size as the most challenging aspect in writing believing that most difficulties learners face with writing a text are derived from their lack of adequate vocabulary knowledge. Moreover, as Llach (2023) indicate, English learners have continually recognized the essential relationship between vocabulary knowledge and academic writing. Considering the above mentioned studies,

it is highly likely that vocabulary knowledge is one of the major determinants in the quality of writing.

Another special area that has recently gained interest among researchers and teachers in the field of L2 vocabulary acquisition is “whether there is a language knowledge threshold, which marks the boundary between not having and having enough language knowledge for successful language use” (Nation, 2001: 144). The threshold hypothesis, which claims the necessity of a definite vocabulary size at each particular level for reading comprehension, has received support in many studies (e.g. Hirsh, 1992, Hirsh & Nation, 1992; Laufer, 1989, 1992, 1996; Laufer & Ravenhorst-Kalovski, 2010; Laufer & Sim, 1985; Laufer & Yano, 2001; Nation & Meara, 2013; Jalali & Sahebkhair, 2024). Different scholars have estimated different vocabulary size due to the nature of the text. Laufer (1996, and 1997), for instance, distinguishes a level of 3000 word families to comprehend a text. “About 4000-5000 word families” as Zimmerman (2004: 1) suggests “are necessary for comprehending more academic texts, such as an economics textbook”. It will be probably useful for English teachers to know about the threshold level of vocabulary for language skills. If a learner crosses the threshold, then, the teacher will predict whether s/he possesses the adequate English proficiency for future academic purposes. However, no empirical study was found to identify a threshold level of vocabulary for academic writing skills which is one focus of this study.

Vocabulary Threshold refers to the boundary between having and not having enough vocabulary knowledge for language proficiency (Nation, 2001; Web & Nation, 2017). In other words, the number of words a L2 learner need to know in order to be considered as a proficient language user in different skills. The majority of previous studies in the field of vocabulary focused on finding a vocabulary threshold for reading comprehension. For instance, Nation and Hirsh

(1992) suggested that knowing approximately 5,000 word families allows learners to have an enjoyable reading. They also proposed that almost 4,000 word families are needed to understand 95% of an academic text. In another study, Nation (2001) asserted that knowledge of the 2,000 word families would lead to comprehending about 87% of written texts and about 80% of a typical academic text. This number increases in the case of university level.

Hazenbergh and Hulstijn (1996), for instance, approximated that half of what an average adult native speaker knows i.e. about 10,000 word families, is essential at university level. Moreover, there are some other studies that investigated the relationship between vocabulary size and L2 learners' performance in proficiency tests such as IELTS and Cambridge First Certificate in English (FCE). The findings of these studies have introduced different vocabulary threshold. Staehr (2008), for example, suggested that at least knowledge of 2000-2500 vocabulary is required for learners to get score 5 or better on IELTS speaking and listening sub-skills.

In another study, Meara and Milton (2003) explicitly linked learners' scores in X-Lex test (max 5000) to their scores in Cambridge First Certificate in English (FCE) and estimated a threshold of 3500 words from 5000 to pass the Cambridge First Certificate in English (FCE) examination. Furthermore, the results of their study suggested that the threshold must be somewhat greater for getting grade 'A' in Cambridge Proficiency Test. They reported 8500 word family out of most frequent 10,000 words as the vocabulary threshold to get 'A'. An ANOVA analysis also confirmed that there is a statistically significant interaction between group and vocabulary size ($F=11.906$, $p>0.001$). Therefore, vocabulary size tends to significantly predict grades in both examinations (FCE & Cambridge Proficiency Test) equally well (Milton, 2009: 184). However, it is not obvious in his data that whether significantly higher vocabulary scores contribute to higher IELTS grades. Moreover, he did not suggest such a threshold for IELTS writing. Yet, no empirical

study was found to identify a definite threshold level of vocabulary knowledge for academic writing skills.

Thus, the present study tried to investigate a vocabulary threshold for academic writing. If the threshold level of vocabulary size could be estimated in this study, teachers could simply evaluate and anticipate their students' ability in academic writing. Teachers could then administer a test of vocabulary used in this study as a tool to make a prediction of students' level of language proficiency for prospective study in higher education before they have to attend tests such as IELTS or TEFL. Considering the above mentioned points, this study seeks to examine the number of words needed for successful academic writing. In so doing, students were given tests of vocabulary size and then the scores obtained from these tests were correlated with their scores in academic writing in IELTS examination. The above-mentioned purposes were examined by proposing two key question:

RQ: What is the threshold level of productive vocabulary for IELTS writing skills?

Methodology

Based on the nature of this study which focuses on identifying a vocabulary threshold for IELTS writing skill, a quantitative correlation method was applied to the data. First, participants' scores in four different levels of PVLT (i.e. level 2000, 3000, 5000, & 10,000) were correlated with their score in IELTS writing. Then, the mean of participants' score at each frequency level of PVLT was calculated (Table 4). Finally, the number of productive vocabulary was estimated for each frequency level of PVLT using this formula: (participants' mean score \times total words at level of frequency \div 18, Zimmerman, 2004).

Participants

A total of 131 International postgraduate students who obtained the minimum academic (not general) IELTS score essential to get UTM's acceptance to enroll in postgraduate programs (i.e. the overall score is 6) were participants of this study. Due to the validity extension of IELTS score, only students with IELTS less than 2 years from the date of issuance of their results were chosen as the participants for this study. These students also were chosen randomly from among international students enrolled in postgraduate programs in UTM whether male or female, PhD or Master. It should be reiterated that participants were ranked based on their score in writing section of IELTS not their total IELTS score. Table 1 shows the number of participants in different IELTS writing band scores:

Table 1

Number of Participants in each of IELTS Writing band scores

IELTS Band Scores in Writing	Number of Participants
8	7
7.5	20
7	22
6.5	22
6	21
5.5	19
5	20
Total	131

As seen in the above table, 39 participants out of 131 have scored below 6 in IELTS writing even though their total band score was 6. This matter shows the difficulty of academic writing as even students with IELTS 6 were not competent in this critical skill.

Instruments

Following the design of the study and in accordance with the research methodology the data were gathered through three different vocabulary tests and a questionnaire:

Productive Levels Test (PVLТ)

The primary instrument used in this study was Productive Levels Test (PVLТ; Laufer & Nation, 1999, 2013) which is a modified version of Vocabulary Levels Test (Nation, 1983). Controlled PVLТ (Parallel Version 1 (Version C) (see Appendix C) is designed to measure the size of L2 learners' productive word knowledge. In controlled PVLТ format, half of the word is presented and students should complete the word. In fact, they produce the word as they do in writing and speaking skills. The correct answers illustrate a good command of productive word knowledge. The format of PVLТ is as follows:

I'm glad we had this opp_____ to talk.

Five different frequency levels are included in the test (i.e.1-2000, 2000-3000, 3000-5000, University Word List, and 5000-10,000 word level). Each includes eighteen items which makes a total of 90 items. It is important to know that University Word List is not considered as a frequency level because "the frequency of some of the words in the UWL section overlap with the frequency of the words in the 5,000-10,000 section, even though none of the words tested on the PVLТ are the same" (Zimmerman, 2004 : 32).

The items in each level are ranked from higher frequency to lower one. Therefore, the difficulty level of questions increases respectively in each frequency level. Since in PVLТ the chosen words are sampled from different levels, the scores obtained from the test provide an approximate estimate of the students' productive vocabulary size. For example, if a student answers nine items out of 18 correctly in the first frequency level, it means that s/he knows approximately 1000 words out of the 2,000 words.

In previous studies using PVLТ, answers were scored as correct ones if students wrote the correct form of the word considering part of speech, even with some mistakes in grammar or

spelling. For instance, in the item, “The telegram was deli_____ two hours after it had been sent”, the ideal answer is ‘delivered’. The words ‘delivers’ or ‘deliver’ even with mistakes in spelling, were considered as correct answers. However, the words such as ‘delivery’ or ‘deliverable’ were marked as incorrect, since they were different in parts of speech. However, since the purpose of the current study was to measure academic writing ability which is a necessary skill for higher levels of education, the way of scoring was different from the previous research. In this study, only those responses which were correct in part of speech, spelling (either American or British spelling), and grammar were considered as correct answers. The scoring of PVLT could be done both manually or using the Web (<http://www.lex tutor.ca/tests/levels/productive/10ka.html>). In the latter one, students’ answers for each frequency level should be typed in the blank spaces of the test seen on the screen and then the result for each frequency level are given automatically in percentage. However, scoring has been done manually in the current study since the computerized version allows for minor spelling mistakes. Moreover, since each question values one point, counting the correct answers provides a score that is a number out of 90 for the five frequency levels i.e. the maximum possible score for PVLT. The results of PVLT indicate whether students possess an acceptable mastery on the words. Laufer and Nation (1999) verified the reliability and validity of PVLT and concluded that the controlled productive vocabulary levels test is reliable, valid and practical in which the different levels of frequency distinguish between different proficiency groups. The time allocated to this test was 30 minutes.

IELTS Writing Score

IELTS is a test of English to measure language proficiency for vocational and academic purposes administered by three partners: IDP Education Australia, the British Council and University of Cambridge. Four language skills (i.e. listening, reading, writing & speaking) are measured separately in IELTS exam. Scores obtained in IELTS exam would efficiently evaluate “the language ability of candidates who intend to study or work where English is used as the language of communication.” (IELTS, 2003: 3) Most international universities accept IELTS test as evidence to prove whether an applicant possesses efficient English language proficiency to attend academic educational institutions in which English is used as the medium of instruction. The IELTS Academic Writing test is also a reliable measure to evaluate candidates’ ability in academic writing needed for higher education. There are two writing activities in IELTS academic writing in which the topics for both parts are presented and participants must carry out both tasks. The first one is describing a table, diagram or graph. The second task is an argumentative essay on a given topic, based on the candidate’s own knowledge, ideas and experience. The minimum paragraph length is 150 words for the first task, and for the second one the suggested length is 250 words. Scoring is based on IELTS nine-band scale descriptors. According to Milton (2009: 172), band 9 refers to “having a wide range of vocabulary with very natural and sophisticated control of lexical features; rare minor errors occur only as ‘slips’”. Band 8 indicates that the language user knows “a wide range of vocabulary and is fluent and flexible to convey precise meanings, skillfully uses uncommon lexical items, but there may be occasional inaccuracies in word choice and collocation and produces rare errors in spelling and/or word formation”. Band 7 suggests the use of infrequent words but an appropriate use of collocation. At band 7, candidate “uses a sufficient range of vocabulary to allow some flexibility and precision, uses less common lexical items with

some awareness of style and collocation, and may produce occasional errors in word choice, spelling and/or Word formation”. Band 6 indicates wide word knowledge and shows a greater vocabulary size than lower bands. In this band, candidate “uses an adequate range of vocabulary for the task, attempts to use less common vocabulary but with some inaccuracy, makes some errors in spelling and/or word formation, but they do not impede communication”. Band 5 and 4 imply to ‘the absence of a large vocabulary’ needed for a good command in speaking and writing. The learner in this level “uses a limited range of vocabulary, but this is minimally adequate for the task, may make noticeable errors in spelling and/or word formation that may cause some difficulty for the reader”. Based on these descriptors, it seems that the “vocabulary knowledge grows in size and depth through IELTS bands” (Milton, 2009: 172).

In the present study, to increase the validity of participants’ IELTS score, participants were asked to have a copy of their IELTS result to give to the researcher in the test session. Then, participants’ scores of IELTS academic writing were correlated with their scores of productive vocabulary test and to specify the threshold level of vocabulary size for academic writing skills, vocabulary tests scores were correlated with each level of IELTS scores in writing section (5, 5.5, 6, 6.5, 7, 7.5, & 8) separately.

Data Analysis

The threshold level of vocabulary was identified by looking at participants’ mean score. In this process, the first step was to identify one of IELTS band score as the threshold level in academic writing. In other words, which score students are required in IELTS writing to be considered as competent in writing skill? According to IELTS band score description as provided by IELTS idp, at <https://ielts.org/take-a-test/your-results/ielts-scoring-in-detail>, IELTS Band Score 6 is

considered as the competent level. However, since this study was conducted among international students studying at postgraduate level, band score 7 in which the test taker has an *operational* command of the language was considered as the competency level. Since in band score 6 the test takers have some inaccuracies, inappropriate usage and misunderstandings which is not accepted at postgraduate level.

To determine this, first, participants who were considered as competent and very competent were sorted out according to their IELTS writing score were identified. Then to measure the number of words required for being competent in academic writing, PVLT was used as the only instrument; since it was the only vocabulary test which includes different levels of frequency to measure the size of learners' productive vocabulary in this study. The relationship between IELTS writing score and different frequency levels of PVLT has been examined. Then, participants' mean score at each frequency level of PVLT was calculated. Finally, the number of productive vocabulary was estimated for each frequency level of PVLT using this formula: (participants' mean score \times total words at level of frequency \div 18, Zimmerman, 2004).

Results

Correlation between Productive Vocabulary Size and IELTS Writing Score

To start with, as the first step, the results of each test were scored initially. Then a two-tailed Pearson Product Moment correlation coefficient analysis was computed to assess the relationship between participants' scores in the PVLT with their scores in IELTS writing. Vocabulary size test was considered as the independent variable while participants' IELTS writing score was considered as the dependent variable.

Table 2 also illustrates the correlations coefficients among the variables. From the table, it is clear that relationships among variables were statistically significant. Correlation coefficients ranged from .44 to .94 among vocabulary tests (i.e. PVLТ, WAT & Lex30) and IELTS writing score and lecturers' assessment.

Table 2

Correlations coefficients between variables

Components of Vocabulary Size	Components of Academic Writing IELTS writing score
PVLТ	.943**

** . Correlation is significant at the 0.01 level (2-tailed).

PVLТ correlated significantly with IELTS writing score ($r=.943$). Statistically, the independent variable PVLТ was significantly correlated with dependent variable (IELTS writing score).

This study also tried to examine whether vocabulary tests were able to predict students' score in IELTS writing. In so doing, all the variables were analyzed using Multiple Regression. Table 3 lists the results of SPSS analysis for Multiple Regression.

Table 3

Multiple Regressions for vocabulary tests and IELTS writing score

Model	Standardized Coefficients	R	R Square
	Beta		
(Constant)		.970 ^a	.942
Productive	.447		

a. Dependent Variable: IELTS

b. Predictor: (Constant), PVLТ

Table 3 demonstrates the variance of IELTS writing scores from the square of correlation coefficients, i.e. Beta scores. PVLТ, for instance, holds a great variance in IELTS writing score (.447). It means that almost 44% of students' variation of IELTS writing score is predictable by PVLТ.

Evidently, the results of Multiple Regression revealed that the variance depicted by the PVLT was statistically significant. In other words, a high portion (94%) of the variance was predicted by the PVLT. On the whole, the above mentioned analyses show high correlation coefficients between productive vocabulary size and IELTS writing as indicated in the PVLT.

Identifying the Threshold Level of Vocabulary for IELTS Writing

To identify the threshold level of vocabulary for IELTS writing, first, IELTS band score 7 was considered as the competency level for postgraduate students. Second, to estimate the number of words required to get 7 score in IELTS writing which represents the competency level of academic writing for L2 learners, it was vital to clearly identify a threshold level of productive vocabulary from the vocabulary tests. It should be noted that since PVLT was the only instrument of this study which included different levels of frequency, it was used as the only instrument to identify the vocabulary threshold in this stage.

Then, the mean of participants' score at each frequency level of PVLT was calculated as presented in table 4. Finally, the number of productive vocabulary was estimated for each frequency level of PVLT using this formula: (participants' mean score \times total words at level of frequency \div 18, Zimmerman, 2004).

Table 4

The mean scores and percentage for each band scores of IELTS writing

IELTS Writing Band Scores	PVLТ (90)		Level2,000		Level3,000		Level5,000		Level10,000		WAT(160)		Lex30 (120)		
	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	
8	7	73.14	81	18.0000	100	13.2857	74	13.1429	73	11.1429	62	141.71	89	115.86	97
7.5	20	69.35	77	17.6500	98	15.3500	85	13.2000	73	6.8000	38	125.95	79	92.70	77
7	2	52.32	58	16.9091	94	11.6364	65	8.6818	48	3.0000	17	120.27	75	93.18	78
6.5	2	48.50	54	15.2727	85	10.0000	56	8.6364	48	3.0000	17	99.55	62	86.82	72
6	21	42.62	47	14.5714	81	8.9048	50	6.7143	37	1.8095	10	91.29	57	73.48	61
5.5	19	30.11	34	11.3158	63	5.9474	33	4.0526	23	.9474	5	69.53	44	69.89	58
5	20	23.35	26	9.6500	54	4.6500	26	2.5000	14	.4000	2	53.15	33	60.50	50
Total		131													

According to the above graph, participants at band 7 could answer only 0 to 7 questions out of 18 at level 10,000 of PVLТ correctly. Considering the mean score at the 10,000 word level which was 3.000; the number of words known by the learner was approximately 1666 words at this level. It means that they knew only about 1666 words at level 10,000 of PVLТ ($3.000 \times 10,000 \div 18 = 1666$).

However, the point is that based on Nation’s descriptor of his test which is provided in <http://www.lextutor.ca/tests/levels/productive/10ka.html> and summarized in Table 5, participants are able to pass a frequency level of PVLТ only if they could pass a special percentage of that level which is 83% for the three first level and 80% for the last level of frequency. Thus, based on these descriptors, participants who obtained band score 7 in IELTS writing were competent only in the first 2000 level of frequency.

Table 5

Descriptors for Frequency Levels of PVLТ

Frequency Levels of PVLТ	Threshold Level (accepted percentage)	Percentages obtained in this Study for participants with 7 in IELTS Writing
Level 2000	83%	94%
Level 3000	83%	65%
Level 5000	83%	48%
Level 10,000	80%	17%

Based on the above table, the percentage of the mean score of participants at band score 7 of IELTS writing for level 2000 is 94% that is remarkably above the cut off score for that level i.e. 83% identified by Nation (2001, 2015). While for other levels the estimated percentage is below the cut off score. It means that participants with band score 7 in IELTS writing could pass only the first level of frequency i.e. 2000 in PVLТ. The estimated productive vocabulary size at different word frequency levels measured by Productive Vocabulary Levels Test (PVLТ) in different IELTS writing band scores is presented in table 6.

Table 6

Estimated Productive Vocabulary Size for different IELTS writing band scores

IELTS Writing band scores	n	Word frequency levels			
		2,000	3,000	5,000	10,000
5	20	1,000	666	555	0
5.5	19	1,222	833	1,111	522
6	21	1,555	1,333	1,666	555
6.5	22	1,666	1,666	2,222	1,666
7	22	1,777	1,833	2,222	1,666
7.5	20	1,888	2,500	3,611	3,333
8	7	2,000	2,166	3,611	6,111

The table shows that the number of words known by participants, increases slightly through different IELTS writing band scores. It means that those participants who knew more words could get a higher score in academic writing of IELTS.

To sum up, looking at the findings of this study it could be concluded that a full knowledge of 2,000 words would lead to getting 7 in IELTS writing and being competent in academic writing. In other words, 2000 productive words is the threshold level of vocabulary for academic writing skills. It means that if a L2 learner wishes to be competent in academic writing skill, s/he should have a full knowledge of 2000 productive words including the knowledge of form, meaning and use. Therefore, the answer to the research question of this study was identified. However, it is worth to remember that in this study, the controlled productive vocabulary size test i.e. PVLТ was

used to identify the productive vocabulary threshold. Thus, whether the same result could be inferred for free production is not very clear and needs further investigating.

Discussion

Multiple Regression analysis revealed that there was a statistically significant interaction between IELTS writing score and vocabulary test ($F=68$, $p>0.001$). Therefore, it appears that PVLT may predict grades in IELTS writing examination well. The findings of this study which are in line with a study carried out by Meara and Milton (2003) in which vocabulary size has been proved to predict participants' performance in English language Tests, highlighted the significant relationship between vocabulary knowledge and L2 learners' performance in English skills.

Nevertheless, the threshold estimated in this study is much less than that obtained in Meara and Milton (2003) who estimated a threshold of 3500 words for being accepted in Cambridge First Certificate in English (FCE). The reason may lie in the way of scoring in this study which was different from other studies. As discussed previously, based on the idea that academic writing is a skill for higher levels of education in which a higher level of English literacy is demanded, only those responses which were correct in part of speech, spelling (either American or British spelling), and grammar were considered as correct answers while in previous studies using PVLT, the mistakes in spelling and grammar have been ignored (e.g. Morris & Cobb, 2004; Zimmerman, 2004). However, it seems that the result is still consistent with Staehr's (2008) who reports a threshold level of 2000 words that must be crossed if learners are to gain an average score or above in writing section of examination. However, in his study, the level of participants and the type of writing test were not mentioned clearly.

On the whole, two main reasons tended to strongly influence the threshold identified in this study. The first one is that the threshold identified in this study was based on the number of learners' productive word knowledge since it was believed that productive vocabulary is more related to academic writing skills rather than receptive vocabulary. Thus, a controlled productive vocabulary test (i.e. PVLT) was used to measure L2 learners' productive vocabulary size whereas in previous studies on threshold level of vocabulary, learners' receptive vocabulary was the base for identifying the threshold level of vocabulary. Considering the fact that learners' receptive vocabulary knowledge tend to be larger than their productive vocabulary knowledge, the threshold level of vocabulary of this study is smaller than the one identified in previous research. Moreover, the productive vocabulary test used in this study i.e. PVLT was a controlled productive test and using a free productive writing may lead in gaining different results from that of this study.

The main implication of this study is to use vocabulary tests PVLT to predict students' competency level in academic writing in general and IELTS Writing in particular. It is suggested that teachers apply these tests to predict their students' competency level in IELTS Writing before students attend IELTS examination which is expensive and time consuming. As results of Linear Regression revealed, PVLT score is likely able to predict students' academic writing competency (94%). Thus, students' score from PVLT may be a good predictor for their competency in academic writing. However, it is not recommended that this tests replace tests such as IELTS or TOEFL or other common proficiency tests. Nevertheless, the correlation obtained for PVLT and IELTS writing score in this study was high enough (.90) to be safely apply by students.

On the part of teachers, it is highly recommended that they, first, include teaching vocabulary explicitly in their teaching syllabus. Secondly, it would be a good practice if they teach students about other aspects of vocabulary such as association and collocation when they present new

words. On the whole, the findings of this study highlight the importance of vocabulary knowledge in learning a second language.

Moreover, the vocabulary tests used in this study, have diagnostic values for placement and pedagogic purposes. Using PVLТ may probably help teachers to know their students' level of competency in IELTS writing. In other words, based on students' score in the tests, teachers may be able to predict the degree of students' success in academic writing skills.

Conclusion

The current study aimed at estimating a threshold of vocabulary essential for writing skill. Participants were 131 postgraduate international students who obtained at least 6 in IELTS which was the criteria to be accepted in UTM. The results revealed that a threshold of 2,000 words is required for competency in academic writing skills. It is important to remember that the scoring applied in this study was very strict. Consequently, this threshold represents a full mastery of the first 2,000 words (considering part of speech, grammar, & spelling of the words). However, this number might differ in another context with different disciplines. It also may be different in context where English for postgraduate study is used as a first language which opposed to an ESL context in which students have limited exposure to English.

Two main limitations were identified in this study. First, the number of participants was not equal and sufficient at each of IELTS writing band scores. For example, there were only 8 participants for band score 8, while for other band scores this number was between 19 and 22 people. Moreover, no participants were identified with IELTS writing band score of 8.5 and 9. The limited number of participants in each IELTS writing band score may reduce the reliability of results. Considering the participants of the study, a second limitation is that the majority

were Iranian students who have learnt English as a foreign language. Consequently, generalization of the results of this study to second language learners should be done with caution.

All in all, it should be mentioned that vocabulary is highly related to communicative skills such as speaking and writing. In a bigger picture, the more vocabulary L2 learners know, the better they may operate in English. With these considerations, successful learners are likely those who manage their vocabulary acquisition by increasing the size of their vocabulary knowledge.

However, the volume of acquired vocabulary may vary from one context to another. For example, in a context which English is spoken as a second language learners' exposure to English is much greater than a context in which English is considered as the foreign language. Apparently, researchers should be careful when generalizing the findings of vocabulary measurements from one group of participants to a wider population. On the part of teachers, it is highly recommended that they include teaching vocabulary explicitly in their teaching syllabus. On the whole, the findings of this study highlight the importance of vocabulary knowledge in learning a second language.

Suggestions for Future Studies

Some ideas for future research were elicited from this study. First of all, since the number of participants was not sufficient at each of IELTS writing band scores, future research could be carried out among different International Universities to include more participants with IELTS different band scores. However, it was not viable for the present study.

Second, future research may carry out the tests in different faculties separately. The underlying idea is that different faculties have different disciplines for academic writing. For example, in the

Faculty of Education language performance expectations are higher than the Faculty of Engineering or science.

Finally, using IELTS simply could be replaced by another standard tests such as TOEFL, TOEIC, PTE or other language proficiency tests.

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