

ENGLISH LANGUAGE VOCABULARY PROFILES OF UNDERGRADUATE  
STUDENTS AT DIFFERENT PROFICIENCY LEVELS

NOR HAZWANI MUNIRAH BINTI LATEH

A thesis submitted in fulfilment of the  
requirement for the award of degree of  
Doctor of Philosophy

Language Academy  
Faculty of Social Sciences and Humanities  
Universiti Teknologi Malaysia

SEPTEMBER 2018

**DEDICATION**

*His greatest blessings in my life:*

*My beloved husband*

*My dearest daughter*

*My parents*

*My siblings*

*and others.....*

## ACKNOWLEDGEMENT

I wish to express my deepest appreciation to all those who helped me, in one way or another, to complete my research. First and foremost, I thank Allah the Almighty who provided me with health, strength, wisdom and direction throughout my journey. Special thanks to my main supervisor, Associate Professor Dr Sarimah binti Shamsudin and my co supervisor Associate Professor Dr Abdul Halim bin Abdul Raof for all their patience, guidance and support while supervising my PhD study at UTM. Through their expert guidance, I was able to overcome all the obstacles that I encountered in completing my PhD research.

My greatest gratitude and highest appreciation go to my husband for his never-ending love, support, understanding and care. No words can express how grateful I am for everything you have done to ensure that my spirit is always at the top in order for my PhD to be completed. I would also like to thank my family members especially my beloved parents for praying and motivating me to go through this challenging academic journey.

I am also pleased to acknowledge the support by Malaysian Ministry of Education for sponsoring my PhD study at Universiti Teknologi Malaysia (UTM). My appreciation also goes to my employer University Malaysia Kelantan (UMK) for encouraging my academic advancement. Last but not least, thank you colleagues, friends and anyone who have directly or indirectly helped me to complete this PhD research.

May Allah bless us all. Thank you.

## ABSTRACT

Vocabulary knowledge is influential to learners' language ability. While vocabulary studies in Malaysia have investigated learners' vocabulary knowledge, they however do not consider learners across various proficiency levels. Furthermore, previous studies do not focus on both the receptive and productive vocabulary knowledge of learners. To fill this gap, the present study systematically investigated the profiles of receptive and productive vocabulary of Malaysian undergraduate students at the Band 1 (very limited), Band 2 (limited), Band 3 (modest), Band 4 (satisfactory) and Band 5 (proficient) levels of the Malaysian University English Test (MUET). The Vocabulary Size Test and the Vocabulary Levels Test were administered to gauge the students' receptive vocabulary knowledge. Additionally, parts of their written and spoken corpora were analysed to examine the vocabulary they used in terms of lexical variation, lexical density, lexical sophistication, lexical frequency, lexical originality and lexical collocation. The findings reveal that students attain different extent of receptive vocabulary knowledge. Next, the findings also show that Bands 1, 2 and 3 students lacked receptive vocabulary knowledge to use the language at the university. Furthermore, their knowledge of the academic vocabulary is also limited. When writing the essays, the Bands 1, 2 and 3 students produced almost similar extent of lexical variation, lexical density, lexical sophistication, lexical frequency and lexical collocation. When speaking, the Bands 1, 2, 3 and 4 students produced similar extent of lexical variation, lexical sophistication and lexical collocation. All students demonstrated high use of the General Service List when writing and speaking (more than 86%). Lastly, the finding points to an underuse of lexical collocation categories by the students. The profiles of receptive and productive vocabulary unveiled in the study serve as a practical guideline to incorporate effective vocabulary teaching at higher learning institutions in Malaysia for students at various proficiency levels.

## ABSTRAK

Pengetahuan perbendaharaan kata mempengaruhi kemahiran Bahasa pelajar. Walaupun pembelajaran perbendaharaan kata di Malaysia telah mengkaji pengetahuan perbendaharaan kata pelajar, namun mereka tidak menganggap pelajar melangkaui pelbagai tahap kemahiran. Tambahan pula, kajian sedia ada tidak memberi tumpuan kepada pengetahuan perbendaharaan kata reseptif dan produktif pelajar. Untuk mengisi ruang ini, kajian ini secara sistematik mengkaji profil perbendaharaan kata reseptif dan produktif pelajar pra-siswazah pada tahap *Band 1* (sangat terhad), *Band 2* (terhad), *Band 3* (sederhana), *Band 4* (memuaskan) dan *Band 5* (mahir) berdasarkan *MUET*. Ujian Saiz dan Ujian Tahap perbendaharaan kata telah digunakan bagi menguji pengetahuan perbendaharaan kata reseptif pelajar. Selain itu, sebahagian daripada korpus penulisan dan pengucapan pelajar dianalisis untuk mengkaji perbendaharaan kata yang mereka gunakan dari aspek variasi leksikal, kepadatan leksikal, kecanggihan leksikal, kekerapan leksikal, ketulenan leksikal dan kolokasi leksikal. Dapatan kajian menunjukkan bahawa pelajar mempunyai pengetahuan perbendaharaan kata reseptif yang berbeza. Seterusnya dapatan juga menunjukkan bahawa pelajar *Band 1*, *2* dan *3* tidak mempunyai pengetahuan perbendaharaan kata reseptif untuk menggunakan Bahasa Inggeris di universiti. Selain itu, pengetahuan perbendaharaan kata akademik mereka juga adalah terhad. Apabila menulis esei, pelajar *Band 1*, *2* dan *3* menulis perbendaharaan kata yang hampir sama khususnya dari aspek variasi leksikal, kepadatan leksikal, kecanggihan leksikal, kekerapan leksikal, dan kolokasi leksikal. Sewaktu menyampaikan ucapan, pelajar *Band 1*, *2*, *3* dan *4* telah menggunakan perbendaharaan kata produktif yang sama khususnya dari aspek variasi leksikal, kecanggihan leksikal dan kolokasi leksikal. Semua pelajar menggunakan *General Service List (GSL)* yang tinggi untuk menulis dan bertutur (lebih daripada 86%). Keputusan juga menunjukkan kekurangan penggunaan kategori kolokasi leksikal oleh pelajar. Profil perbendaharaan kata reseptif dan produktif yang dirungkai melalui kajian ini boleh dijadikan garis panduan yang praktikal bagi menerapkan pengajaran perbendaharaan kata yang efektif di institusi pengajian tinggi di Malaysia untuk pelajar di pelbagai peringkat kemahiran.

## TABLE OF CONTENTS

<b>CHAPTER</b>	<b>TITLE</b>	<b>PAGE</b>
	<b>DECLARATION</b>	ii
	<b>DEDICATION</b>	iii
	<b>ACKNOWLEDGEMENT</b>	iv
	<b>ABSTRACT</b>	v
	<b>ABSTRAK</b>	vi
	<b>TABLE OF CONTENTS</b>	vii
	<b>LIST OF TABLES</b>	xi
	<b>LIST OF FIGURES</b>	xiv
	<b>LIST OF ABBREVIATIONS</b>	xvi
	<b>LIST OF APPENDICES</b>	xvii
<b>1</b>	<b>INTRODUCION</b>	<b>1</b>
	1.1 Introduction	1
	1.1.1 Background of the Study	4
	1.2 Problem Statement	6
	1.3 Purpose of the Study	10
	1.4 Research Objectives	11
	1.5 Research Questions	11
	1.6 Scope of the Study	12
	1.7 Significance of the Study	13
	1.8 Theoretical Background of the Study	15
	1.9 Conceptual Framework of the Study	21
	1.10 Definition of the Key Terms	23
	1.10.1 Vocabulary	23
	1.10.2 Vocabulary Knowledge	24

1.10.3	Receptive Vocabulary	24
1.10.4	Productive Vocabulary	24
1.10.5	Corpus	25
1.10.6	Lexical Variation	25
1.10.7	Lexical Density	25
1.10.8	Lexical Sophistication	26
1.10.9	Lexical Originality	26
1.10.10	Lexical Collocation	26
1.10.11	Lexical Frequency	27
1.10.12	Vocabulary Profile	27
1.11	Chapter Summary	27
<b>2</b>	<b>LITERATURE REVIEW</b>	<b>29</b>
2.1	Introduction	29
2.2	Vocabulary	29
2.3	Counting Words	30
2.4	Type of Vocabulary	31
2.5	Aspects of Vocabulary Knowledge	37
2.5.1	Vocabulary Knowledge Breadth	40
2.5.2	Vocabulary Knowledge Depth	41
2.5.3	Receptive and Productive Vocabulary Knowledge	42
2.6	Vocabulary Threshold	44
2.7	Importance of Vocabulary Knowledge	50
2.7.1	Vocabulary Knowledge and Reading	50
2.7.2	Vocabulary Knowledge and Listening	53
2.7.3	Vocabulary Knowledge and Writing	54
2.7.4	Vocabulary Knowledge and Speaking	56
2.8	Vocabulary Test	59
2.8.1	Receptive Vocabulary Test	59
2.8.2	Productive Vocabulary Test	68
2.8.2.1	Corpus-based Vocabulary Analysis	71
2.8.2.2	Previous Studies on Corpus-based Productive Vocabulary Analysis	77

2.9	Previous Research Investigating Vocabulary Knowledge of Malaysian University Students	88
2.10	Chapter Summary	103
<b>3</b>	<b>METHODOLOGY</b>	<b>104</b>
3.1	Introduction	104
3.2	Research Design	105
3.3	Data Collection	110
3.3.1	Participants	110
3.3.2	Research Instruments	114
3.3.2.1	Vocabulary Size Test	115
3.3.2.2	Vocabulary Levels Test	117
3.3.2.3	Descriptive Essay Writing Task	121
3.3.2.4	Picture Description Speaking Task	127
3.4	Research Procedure	138
3.5	Data Analysis	143
3.6	Chapter Summary	147
<b>4</b>	<b>RESULTS AND DISCUSSION</b>	<b>149</b>
4.1	Introduction	149
4.2	Results of the Profile of Receptive Vocabulary	149
4.2.1	Result of Vocabulary Size Test	150
4.2.2	Result of Vocabulary Levels Test	154
4.2.2.1	Result of Students who Pass and Fail each Section of the Vocabulary Levels Test (VLT)	162
4.3	Discussion on the Receptive Vocabulary of the Students	170
4.3.1	The Students' Receptive Vocabulary and the Threshold	170
4.3.2	Knowledge of the Academic Vocabulary	176
4.4	Result of the Profile of Productive Vocabulary	181
4.4.1	Result of Written Productive Vocabulary	182
4.4.1.1	Result of Lexical Variation	182
4.4.1.2	Result of Lexical Density	185
4.4.1.3	Result of Lexical Sophistication	187

4.4.1.4	Result of Lexical Frequency	191
4.4.1.5	Result of Lexical Originality	202
4.4.1.6	Result of Lexical Collocation	209
4.4.2	Discussion on Written Productive Vocabulary	214
4.4.3	Result of Spoken Productive Vocabulary	221
4.4.3.1	Result of Lexical Variation	221
4.4.3.2	Result of Lexical Density	223
4.4.3.3	Result of Lexical Sophistication	226
4.4.3.4	Result of Lexical Frequency	230
4.4.3.5	Result of Lexical Originality	238
4.4.3.6	Result of Lexical Collocation	245
4.4.4	Discussion on Spoken Productive Vocabulary	250
4.5	Chapter Summary	256
<b>5</b>	<b>CONCLUSION</b>	<b>257</b>
5.1	Introduction	257
5.2	Summary of the Findings	257
5.3	Implications of the Study	265
5.3.1	Raising Awareness on Vocabulary Knowledge (Capabilities and Needs)	265
5.3.2	Vocabulary as an Underlying Variable of Language Proficiency	267
5.3.3	Teaching Vocabulary according to Students' Needs	268
5.3.4	Focusing on the Development of both the Receptive and Productive Vocabulary	269
5.4	Limitations of the Study	271
5.5	Recommendations for Future Research	273
5.6	Conclusion	275
	<b>REFERENCES</b>	<b>277</b>
	Appendices A-O	296-340

## LIST OF TABLES

TABLE NO.	TITLE	PAGE
2.1	Composition of the academic corpus for creating AWL	34
2.2	Comparison between the Academic Word List (AWL) and the University Word List (UWL)	35
2.3	What is involved in knowing a word	38
2.4	Categories of lexical collocation and examples	75
2.5	Result of Mokhtar's (2010) study	94
2.6	Result of Engku Ibrahim <i>et al.</i> , 's (2013) study	97
3.1	Details of the participants of the study	114
3.2	Details of the descriptive essay writing task	124
4.1	VST scores of the students	151
4.2	Receptive vocabulary size of the students	151
4.3	VLT scores of the Band 1 students (n=15)	154
4.4	VLT scores of the Band 2 students (n=96)	155
4.5	VLT scores of the Band 3 students (n=87)	156
4.6	VLT scores of the Band 4 students (n=75)	157
4.7	VLT scores of the Band 5 students (n=23)	158
4.8	Comparison of the means scores achieved for each word level	158
4.9	Results of the post-hoc tests for the VLT scores	161
4.10	Proportion of the Band 1 students who pass and fail the VLT (n=15)	163
4.11	Proportion of the Band 2 students who pass and fail the VLT (n=96)	164
4.12	Proportion of the Band 3 students who pass and fail the VLT (n=87)	165

4.13	Proportion of the Band 4 students who pass and fail the VLT (n=75)	166
4.14	Proportion of the Band 5 students who pass and fail the VLT (n=23)	167
4.15	Comparison of the students' mastery of the five word levels	168
4.16	Summary of the receptive vocabulary of the students	169
4.17	Receptive vocabulary learning goals for the Band 1, Band 2 and Band 3 students	175
4.18	Descriptive statistics of lexical variation of the essays	183
4.19	Descriptive Statistics of lexical density within the essays (%)	185
4.20	Descriptive statistics of lexical sophistication of the essays (word families)	188
4.21	Examples of sophisticated word families written in the essays	190
4.22	Overall results of lexical frequency of the essays	192
4.23	Lexical frequency results of the Band 1 essays	192
4.24	Lexical frequency results of the Band 2 essays	193
4.25	Lexical frequency results of the Band 3 essays	194
4.26	Lexical frequency results of the Band 4 essays	195
4.27	Lexical frequency results of the Band 5 essays	195
4.28	Lexical originality of the Band 1 essays	204
4.29	Lexical originality of the Band 2 essays	206
4.30	Lexical originality of the Band 3 essays	207
4.31	Lexical originality of the Band 4 essays	207
4.32	Descriptive statistics of lexical collocations within the essays	209
4.33	Results of lexical collocation categories written in the essays	210
4.34	Summary of the written productive vocabulary analyses	214
4.35	Descriptive statistics of lexical variation of the speeches	222
4.36	Descriptive statistics of lexical density of the speeches (%)	224
4.37	Descriptive statistics of lexical sophistication of the speeches (word families)	227
4.38	Examples of sophisticated words contained in the speeches	229
4.39	Overall results of lexical frequency of the speeches	231

4.40	Lexical frequency results of the Band 1 speeches	232
4.41	Lexical frequency results of the Band 2 speeches	232
4.42	Lexical frequency results of the Band 3 speeches	233
4.43	Lexical frequency results of the Band 4 speeches	234
4.44	Lexical frequency results of the Band 5 speeches	235
4.45	Lexical originality of the Band 1 speeches	239
4.46	Lexical originality of the Band 2 speeches	241
4.47	Lexical originality of the Band 3 speeches	242
4.48	Lexical originality of the Band 4 speeches	243
4.49	Descriptive statistics of lexical collocations within the speeches	245
4.50	Lexical collocation categories produced in the speeches	246
4.51	Summary of the spoken productive vocabulary analysis	249

## LIST OF FIGURES

<b>FIGURE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
1.1	Communicative Language Ability Model by Bachman and Palmer (1996)	16
1.2	Theoretical framework of the study	20
1.3	Conceptual framework of the study	23
2.1	An item of the WAT	61
2.2	VKS elicitation scale self-report categories	63
2.3	VKS scoring categories: meaning of scores	63
2.4	A unit of VLT	65
2.5	A unit of the VST	66
2.6	An item of the Controlled Productive Levels Test	70
3.1	Research design of the study	109
3.2	Steps in selecting participants of the study	112
3.3	A unit of the VST	116
3.4	A unit of the VLT	117
3.5	Steps in selecting essays to be analysed in the study	127
3.6	Steps in selecting speeches for analysis	137
3.7	Research procedures of the study	139
3.8	Data collection stage	140
3.9	Research objective, research instrument and data analyses of the study	147
4.1	Comparisons of the means scores achieved for each word level	159
4.2	Comparison of the mean sophisticated word families	188
4.3	Comparison of GSL coverage between the essays	196
4.4	Comparison of AWL coverage between the essays	198

4.5	Comparison of Off-list words coverage of the essays	201
4.6	Sophisticated words within the speeches	227
4.7	GSL coverage within the speeches	236
4.8	AWL coverage within the speeches	237
4.9	Off-list words coverage within the Speeches	238
5.1	The profile of receptive vocabulary	260
5.2	The profile of written productive vocabulary	262
5.3	The profile of spoken productive vocabulary	264

**LIST OF ABBREVIATIONS**

CORMALWE	-	Corpus of Malaysian Learner Written English
CORMALESE	-	Corpus of Malaysian Learner Spoken English
MUET	-	Malaysian University English Test
VST	-	Vocabulary Size Test
VLT	-	Vocabulary Levels Test

**LIST OF APPENDICES**

<b>APPENDIX</b>	<b>TITLE</b>	<b>PAGE</b>
A	Vocabulary Size Test (VST)	296
B	Vocabulary Levels Test (VLT)	306
C	Approval from MPM	309
D	Writing Task Answer Sheet	310
E	Samples of the Essays Analysed in the Study	311
F	Speaking Task Instruction and Prompts	321
G	Samples of the Transcribed Speeches	322
H	Debriefing Sheet and Consent Forms	324
I	Sophisticated Words in the Essays	325
J	Unique Words in the Essays	329
K	Sample of Lexical Collocations in the Essays	332
L	Sophisticated Words in the Speeches	334
M	Unique Words in the Speeches	336
N	Lexical Collocations in the Speeches	339
O	Combined Vocabulary Profiles	340

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

This thesis begins with a very simple question: How much English vocabulary that learners across different proficiency levels know and to what extent they can use them to function in the language? To the researcher, this question is very important to be answered, due to the undeniable importance of vocabulary knowledge to language capabilities of learners regardless of their proficiency levels. As Treffers-Daller and Milton (2013) explain, vocabulary is instrumental in language use and the absence of it would hinder learners from using the language.

Vocabulary is the basic element of a language and it is always required for the construction of meaningful linguistic structures such as sentences, paragraph and complete texts (Read, 2000). Therefore, it is necessary for learners to acquire sufficient vocabulary knowledge in order for them to be able to use a target language proficiently either for comprehension or production purpose (Nation, 2001; Read, 2000; Schmitt, 2000). In other words, adequate vocabulary knowledge is needed for learners to use the language proficiently in reading, listening, speaking and writing (Moghadam, Zainal, & Ghaderpour, 2012). In fact, learners with greater vocabulary knowledge are capable of using the language more proficiently in a wider range of language skills specifically speaking, writing, reading and listening than learners who know fewer vocabulary (Meara, 1996).

Generally, vocabulary is conceptualised as receptive vocabulary and productive vocabulary. According to Nation (2001), receptive vocabulary relates to

the words which learners are able to understand or comprehend what their meanings are as they are found in written and spoken texts. Meanwhile, productive vocabulary is the words which learners are able to produce in order to form and deliver intended messages through speaking or writing (Nation, 2001). In other words, receptive vocabulary allows learners to perform receptive tasks such as reading and listening whereas productive vocabulary enables them to speak and write in the language.

There is a theoretical as well as empirical support to the relationship between vocabulary knowledge and the ability of learners to perform communicative tasks specifically speaking and writing in the target language. In the theoretical model of communicative language ability (Bachman & Palmer, 1996), vocabulary knowledge plays an important role in enabling learners to communicate proficiently in a target language. The model in a broader sense proposes that there are four major elements or characteristics which determine learners' proficiency when communicating in a language, comprising of personal characteristics, topical knowledge, affective schemata as well as language ability (Bachman & Palmer, 1996). The language ability factor consists of organisational knowledge and pragmatic knowledge. It is the organisational knowledge which comprises of vocabulary knowledge that enables learners to organise as well as produce language structures such as sentences and texts as they take part in communication (*ibid*). Vocabulary knowledge in this model is placed under the language knowledge area, which is one of the sub areas of the language ability component.

In addition to the theoretical importance, the significance of vocabulary to language skills of learners has also been reported in past research studies. For example, Oya, Manalo, and Greenwood (2009) and Koizumi and In'nami (2013) have shown that receptive and productive vocabulary knowledge of learners are positively related to their ability to speak more fluently and proficiently in the language. Additionally, Llach and Gallego (2009) reported that learners' receptive vocabulary knowledge is positively and significantly associated with their writing skill. This suggests when learners know more of the English language vocabulary, they are able to write more proficiently in the language. Furthermore, Shi and Qian

(2012) found that receptive and productive vocabulary correlate significantly with learners' writing quality.

In order to clarify the vocabulary threshold or amount of vocabulary which learners should acquire to successfully comprehend language used particularly in speaking and writing, different perspectives have been put forward by scholars in the field (Nation, 2006; Laufer and Ravenhorst-Kalovski, 2010). According to Nation (2006), learners need to know around 6000 to 7000 word families of the English language in order to obtain optimum comprehension of spoken English texts which they listen to. A word family is a root word with its inflected and derived forms (Bauer & Nation, 1993). However, reading requires learners to know more vocabulary, which is around 8000 to 9000 word families. Thus, Nation (2006) proposes that learners should know around 6000 to 9000 word families of the English language if they do not want to encounter difficulties in comprehending English texts which they read or listen to.

Additionally, Laufer and Ravenhorst-Kalovski (2010) propose two vocabulary thresholds for achieving optimal and minimal comprehension when reading academic English texts. The minimal comprehension target which provides 95 percent coverage requires learners to know 4000 to 5000 word families (including proper nouns). Meanwhile, the optimum comprehension target which provides 98 percent coverage requires 8000 word families (including proper noun). Moreover, Dang and Webb (2014) who investigated the amount of vocabulary which university students should know in order to comprehend spoken English academic lecturers conclude that knowledge of 8000 word families, Academic Word List (AWL), proper nouns and marginal words is required in order for the students to understand 98 percent of the contents of the academic lecturers. AWL consists of general academic words which are commonly used in academic texts of various fields and disciplines (Coxhead, 2000).

The following section describes the background of the study.

### **1.1.1 Background of the Study**

From the extensive English language learning which they had during school education followed by the preparatory English language courses taken at the tertiary education level, the government expects that all Malaysian university students would have developed a strong command of the English language and become proficient English users by the time they complete their undergraduate studies. This however, is a misguided notion as the expectation does not take place. In recent years, various complaints have been received regarding the poor ability of many Malaysian graduates to function substantially in the language, despite the great amount of time and effort they spent on learning the language (Ministry of Education Malaysia, 2015). Fong, Sidhu, and Fook (2014) concur with this as they found that although university students in Malaysia are able to show good Information Technology (IT), collaboration and leadership skills, they however cannot successfully demonstrate proficient English communication skills.

Indeed, the deficiency in English language competence of Malaysian university students has been a critical concern which needs to be addressed promptly by the stakeholders (Khatib & Maarof, 2015). This is due to the further implications which will be faced by the students in which they cannot perform well in their academic studies and subsequently fail to secure a job after graduating from the universities (Alias, Sidhu, & Fook, 2013; Lim & Bakar, 2004; Mohd Abd Wahab & Shareela, 2014; Zaliza Hanapi & Mohd Safarin Nordin, 2014).

The government highly recognises the need to improve and enhance English language proficiency of Malaysian university students for them to survive in the competitive global environment especially in the education and workplace sectors. To date, various steps have been taken by the Government to enhance the English language proficiency of Malaysian graduates. This includes the implementation of the Malaysian University English Test (MUET) as a standardised national proficiency test as a prerequisite to university admission in Malaysia. MUET is used to assess the overall English language proficiency level of students who intend to embark on any undergraduate courses offered at the Malaysian higher learning institutions (Malaysian Examinations Council, 2014). In this regard, MUET gauges

all the four skills (reading, listening, writing and speaking) where aggregated scores obtained for all the skills are corresponded to a certain band which indicates the overall proficiency level of the students. There are six proficiency bands of MUET which the students could possibly achieve specifically Band 1 (very limited), Band 2 (limited), Band 3 (modest), Band 4 (satisfactory), Band 5 (proficient) and Band 6 (highly proficient).

In addition to MUET, the Government also develops a new plan for the Malaysian education system referred to as the Malaysian Education Blueprint 2015-2025 (Higher Education) or MEB (HE) in order to transform the current Malaysian higher education system, including the English language teaching system. In specific, the MEB (HE) aspires to enhance six key qualities or attributes of university students pertaining to their ethics and spirituality, leadership skills, national identity, language proficiency, thinking skills, as well as knowledge (Ministry of Education Malaysia, 2015). As far as English language proficiency of the students is concerned, this is addressed in the language proficiency attribute, whereby all Malaysian universities are expected to produce graduates who are bilingually proficient in both Malay and English (Ministry of Education Malaysia, 2015).

As explained, learners' ability to perform proficiently in the language is highly influenced by the extent to which they acquire vocabulary knowledge of the language. In other words, English language proficiency could be achieved when learners have attained substantial knowledge of vocabulary of the language (Moghadam, Zainal, & Ghaderpour, 2012; Read, 2000). With limited vocabulary knowledge, it is unlikely possible for learners to use the language proficiently regardless in reading, listening, writing or speaking (Cai, 2015; Farvardin & Koosha, 2011; Kang, Kang, & Park, 2012; Masoumeh & Rahimy, 2014; Shi & Qian, 2012; Teng, 2014). This underscores the importance of examining the English language vocabulary of Malaysian university students at different proficiency levels (as determined by MUET) as a way to help enhance their English proficiency levels. This is especially true in the case of the Band 1(very limited), Band 2(limited) and Band 3(modest) students who clearly need to improve their language proficiency in order to be able to cope with the English language use at the university.

On that account, the present study aimed at exploring the profiles of English language vocabulary of Malaysian undergraduate students at different proficiency levels, as determined by the MUET results which they obtained prior to their enrolment into the university. The purpose of doing this is to obtain insights into the receptive and productive vocabulary abilities of students across various proficiency levels. This is also to better understand the students' needs in term of receptive and productive vocabulary knowledge, which subsequently lead to a more effective and systematic vocabulary teaching to take place at higher learning institutions.

## **1.2 Problem Statement**

Vocabulary is an instrumental aspect of a language. In any language use, vocabulary is needed to construct meaningful language structures from as simple as sentences to paragraph and full texts (Read, 2000, Milton, 2009). In other words, it is not possible for learners to function in a language regardless in reading, listening, writing or speaking if they do not have vocabulary knowledge of the language.

There is a growing evidence in the theoretical and research background supporting the significance of vocabulary knowledge to language ability of learners. In this regard, Bachman and Palmer (1996) through the Communicative Ability Model advocate vocabulary knowledge as one of the significant elements of learners' language knowledge which is influential to their language performance. Vocabulary knowledge which scholars (Nation, 2001; Schmitt, 2000 & Webb;2005) conceptualise as receptive knowledge (knowledge to understand meanings of vocabulary found in reading and listening) and productive knowledge (knowledge to access and produce vocabulary to write and speak) is further explained by Nation (2001) to consist of various knowledge elements and dimensions. These include the knowledge of the spoken form of the word, knowledge of the written form of the word, knowledge of the parts of the word, knowledge of the link between the word form and meaning, knowledge of concepts linked to the word, knowledge of other vocabulary associated to that particular word, knowledge of grammatical functions

related to the word, knowledge of collocations which accompany that particular word and lastly knowledge of the word's register and frequency (Nation, 2001).

There is a consensus among scholars that learners who intend to use English for tertiary education purpose must acquire around 6000 to 9000 word families in order to be able to use the language independently (Laufer & Ravenhorst-Kalovski, 2010; Nation, 2006). With vocabulary knowledge of lower than this, learners will encounter difficulties to comprehend English texts used in their academic studies. Tertiary level learners also need to master the academic vocabulary that are highly used throughout academic texts of various academic fields (Coxhead, 2000). Apart from acquiring understanding of the meanings of words, learners must obtain the knowledge to produce the words they know in written and spoken forms to use them in meaningful communication (Nation, 2001).

To date, numerous studies have indicated the importance of vocabulary knowledge to language skills of learners. In reading, vocabulary knowledge has been found to significantly influence learners' reading comprehension (Farvardin & Koosha, 2011 & Rouhi and Negari, 2013). The prominent role of vocabulary knowledge to listening comprehension of learners on the other hand is highlighted in the study carried out by Cai (2015) and Teng (2014). As for productive skills (writing and speaking), vocabulary knowledge especially productive vocabulary knowledge of learners has been shown to positively affect their writing as well as speaking proficiency (Douglas, 2015; Koizumi & In'nami, 2013; Masoumeh & Rahimy, 2014 & Shi & Qian, 2012).

From what is indicated in the literature with regard to the vocabulary threshold determined for tertiary level learners and the role of vocabulary knowledge to their language proficiency, this underscores the importance of examining and understanding the English language receptive and productive vocabulary capabilities of Malaysian undergraduate students at different levels. This is particularly to ascertain whether the students with different proficiency of the language are equipped with adequate vocabulary knowledge to allow them to cater to the demand for English language use at tertiary level education.

However, vocabulary studies in the Malaysian context so far do not correspond with investigating the vocabulary knowledge of undergraduate students across various levels of English language proficiency. The extent of English vocabulary attainment by Malaysian ESL undergraduates at different levels of proficiency has not been much explored, since past studies (Harji, Balakrishnan, Bhar, & Letchumanan, 2015; Jamian, Sidhu, & Muzafar, 2008a) tend to look at the vocabulary knowledge of only one group of students with similar level of English proficiency. Although several studies (Mokhtar, Rawian, *et al.*, 2010; Naginder, Nor Hayati, & Kabilan, 2008) took into account students across different proficiency levels, they however did not involve undergraduate university students. Rather, diploma or pre-university students had participated in the studies. This prevents teachers and undergraduate students who attain different proficiency of the language from obtaining insights on their respective vocabulary competence. As a result, teachers and students do not even understand about the vocabulary goals (e.g. what kind of vocabulary, how much vocabulary) which they are deemed to achieve in order to be able to use the language proficiently throughout their academic study at the university.

Also, there is hardly any study which examines both vocabulary knowledge aspects (receptive and productive) of undergraduate students in a single study. Either one of the aspects have been focused on, perhaps due to the time constraint as well as limited resources factors which impede such study from being conducted. For example, Harji *et al.*, (2015) and Mathai *et al.*, ., . (2004) in their study only investigated the receptive vocabulary knowledge of learners. Meanwhile, Jamian, Sidhu, and Muzafar (2008) only examined the productive vocabulary knowledge of the students. This means a comprehensive profile of the actual receptive as well as productive vocabulary ability of undergraduate students with different levels of English language proficiency have not been examined by other studies to date. Supporting this, Harji *et al.*, (2015) concede that vocabulary studies in Malaysia have not given substantial attention and interest in understanding and assessing the actual receptive and productive vocabulary abilities of learners across different proficiency levels.

Furthermore, existing studies (Engku Ibrahim *et al.*, 2013; Harji *et al.*, 2015; Jamian, Sidhu & Muzafar, 2008; Mokhtar, 2010) which examined the productive vocabulary knowledge of Malaysian tertiary level students depend highly on the Controlled Active Vocabulary Levels Test (Laufer & Nation, 1999) in order to assess the productive vocabulary knowledge of the students. This means the assessment of the students' productive vocabulary mostly focused on measuring the size of their written productive vocabulary repertoire. In fact, there is hardly any study found which investigates the spoken productive vocabulary ability of Malaysian undergraduate students.

Moreover, examination on the students' vocabulary so far has focused too much on students' knowledge of the link between word form and meaning where the students' ability to understand meanings of words of different frequency levels is examined (Engku Ibrahim *et al.*, 2013 & Mathai *et al.*, 2004). In other words, there is hardly any study which investigates the students' knowledge and ability to produce vocabulary in order to write and speak in the language. As a result, comprehensive findings of the written and spoken productive vocabulary capability of Malaysian undergraduate students are not derived from the previous studies.

In summary, vocabulary studies in the Malaysian context have not provided a complete and inclusive profile of the English language vocabulary knowledge of undergraduate students who are at different proficiency levels. Detailed descriptions and insights on the students' vocabulary capabilities and needs, both in receptive and productive vocabulary have not been put forward by the previous studies (Engku Ibrahim *et al.*, 2013; Harji. *et al.*, 2015; Jamian, Sidhu, & Muzafar, 2008; Kaur, 2013a; Mathai *et al.*, 2004; Mokhtar, 2010) investigating vocabulary knowledge of Malaysian ESL learners. Due to this, vocabulary teaching in Malaysian context especially at higher learning institutions has been ineffective, resulting in poor vocabulary knowledge and performance of the majority of our university students which further impacts their skills and ability to perform in the language (Kaur, 2013).

Mehring (2010) asserts that for optimal vocabulary learning and vocabulary acquisition to take place, it is necessary for teachers and more importantly learners to first understand about where they are at and where they are heading with regard to their receptive as well as productive vocabulary capabilities and needs. With their individual vocabulary competence ascertained, a more practical and sensible vocabulary learning goal would be determined, followed by incorporation of effective and systematic vocabulary teaching techniques into the English language syllabus taught at the university (Kaur, 2013). Subsequently, this will contribute to a growth in vocabulary knowledge and competence of students across various proficiency levels hence further develop their overall proficiency level.

Therefore, the present study attempts to address the gap in the literature particularly in vocabulary studies conducted in Malaysia. To this end, the study will focus on investigating the English language receptive and productive vocabulary knowledge of undergraduate students who are at various proficiency levels as determined by the Malaysian University English Test (MUET). In assessing vocabulary knowledge of the students, the study will take into account the sub-knowledge aspects proposed by Nation (2001) including knowledge of the spoken form of a word, knowledge of the written form of a word, knowledge of the link between word form and meaning and lastly knowledge of collocations which accompany a word. As a result, the study will unveil hence develop the profiles of receptive and productive vocabulary of Malaysian undergraduate students at different proficiency levels.

### **1.3 Purpose of the Study**

First, the study intends to uncover the profile of receptive vocabulary of Malaysian undergraduate students across various proficiency levels in terms of size and level. Next, the study aims at investigating the profile of productive vocabulary of the students specifically by looking at how they produce written and spoken productive vocabulary in terms of lexical variation, lexical density, lexical sophistication, lexical frequency, lexical originality as well as lexical collocation as

they are writing and speaking in the language. These eventually lead to the development of the profiles of receptive and productive vocabulary of Malaysian undergraduate students at different English proficiency levels.

#### **1.4 Research Objectives**

The objectives of this study are as follows:

- 1) To investigate the profile of receptive vocabulary of students across different proficiency levels in terms of size and level
- 2) To examine the profile of written and spoken productive vocabulary of students across different proficiency levels

#### **1.5 Research Questions**

This study attempts to find answers to the following research questions:

- 1) What is the profile of receptive vocabulary of students across different proficiency levels?
  - a) What is the profile of receptive vocabulary of students across different proficiency levels in terms of size?
  - b) What is the profile of receptive vocabulary of students across different proficiency levels in terms of level?
- 2) What is the profile of productive vocabulary of students across different proficiency levels?
  - a) What is the profile of written productive vocabulary of students across different proficiency levels?

- b) What is the profile of spoken productive vocabulary of students across different proficiency levels?

## **1.6 Scope of the Study**

This study explored and developed the profiles of English language vocabulary of Malaysian undergraduate students whose proficiency levels are at the Band 1 (very limited), Band 2 (limited), Band 3 (modest), Band 4 (satisfactory) and Band 5 (proficient) according to MUET. The scope of the participants was limited to the Band 1 up to the Band 5 students as the Band 6 students were not included.

Examining the profile of receptive vocabulary of the students covers part of the scope of the study. To gauge the receptive vocabulary knowledge of the students, the study focused on the 1) the total size of receptive vocabulary which the students know as well as 2) the level of receptive vocabulary which they have mastered, by utilising receptive vocabulary tests namely the Vocabulary Size Test (VST) and Vocabulary Levels Test (VLT).

Another scope of the study concerns the investigation of the profiles of written and spoken productive vocabulary of the students in terms of lexical variation, lexical density, lexical sophistication, lexical originality, lexical collocation as well as lexical frequency. At this point, analyses were carried out to vocabulary items which the students produced in their essays and speeches, which were collected via administration of writing and speaking tasks in the study. The analysis focuses on the students' knowledge of the spoken form of a word, knowledge of the written form of a word, knowledge of the link between word form and meaning and lastly knowledge of collocations which accompany a word as proposed in Nation's (2001) word knowledge framework.

For the scope of the writing task, the students were required to write a descriptive essay based on their personal and daily life experience. While for the speaking task, the students performed a picture description task with six pictures

along with cue words provided to assist them responding to the task. The writing and speaking tasks were administered as a tool to elicit written and spoken discourse of the students respectively. In other words, the focus of the study is on the written and spoken productive vocabulary use of the students. Specifically, the vocabulary items contained in the essays and speeches are examined in reference to Nation's (2001) word knowledge framework; knowledge of the spoken form of a word, knowledge of the written form of a word, knowledge of the link between word form and meaning and lastly knowledge of collocations which accompany a word.

In term of participants, the students who participated in the study were female and male first-year undergraduate students studying at one public university in Malaysia. In other words, this study focuses only on undergraduate students who just entered the university (about 3 months) and have not undergone much of the academic courses at the university. This means the students completed either matriculation, Form Six or diploma programs not long before they took part in this study. The first-year undergraduate students are focused on in the study as they are still new to learning at tertiary education level hence it is necessary for their vocabulary competence to be ascertained to ensure that they are equipped with adequate vocabulary knowledge to be able to use English proficiently for their upcoming study at the university.

## **1.7 Significance of the Study**

This study offers significant contributions to a number of stakeholders. Adequate vocabulary knowledge is necessary in order for university students to cope with the demand for English language use in academic studies as well as future career. Limited vocabulary knowledge thus impedes their capability to use the language proficiently either for receptive or productive purposes. This will lead to greater implications where the students will not be able to perform successfully in academic studies thus unable to secure a good job after graduating from the universities. Since this study examined and identified the profiles of both the receptive and productive vocabulary of Malaysian university students, the findings

would provide students of various proficiency levels with the awareness about their respective English language receptive and productive vocabulary capabilities and needs.

The profiles of receptive and productive vocabulary which are developed in the study may also assist English teachers in identifying realistic and sensible vocabulary targets which should be taught especially to the lower proficiency students (Band 1, Band 2 and Band 3), in order to enrich their current English language vocabulary knowledge. Eventually, the profiles will lead to more principled and effective vocabulary teachings to take place at Malaysian higher learning institutions. Subsequently, a growth in the receptive and productive vocabulary of the students will lead to an enhancement of their overall English proficiency. With this, it is hoped that the aspiration of the Government to improve English language proficiency level of university students in this country as stated in the newly developed Malaysian Education Blueprint (Higher Education) 2015-2025 will be taken into realisation.

Furthermore, this study offers a significant contribution to the existing body of knowledge particularly to the field of vocabulary studies. Despite the fact that there is an extensive literature on vocabulary acquisition among English as a Second Language (ESL) learners, there is however a scarcity in research study which investigate both the receptive and productive vocabulary aspects of Malaysian university students across various proficiency levels by administering multiple vocabulary assessment measures to the same students in a single study. Since the present study gauged both the receptive and productive vocabulary of the Band 1 up to the Band 5 students by employing various vocabulary assessments, its findings therefore would provide more comprehensive and clearer insights on the receptive and productive vocabulary capabilities of Malaysian undergraduate students.

The significance of the study also entails the development of the corpus of Malaysian learner spoken English (CORMALESE) as well as the corpus of Malaysian learner written English (CORMALWE). To the researcher's knowledge, there is hardly any available written or spoken corpus compiled from Malaysian

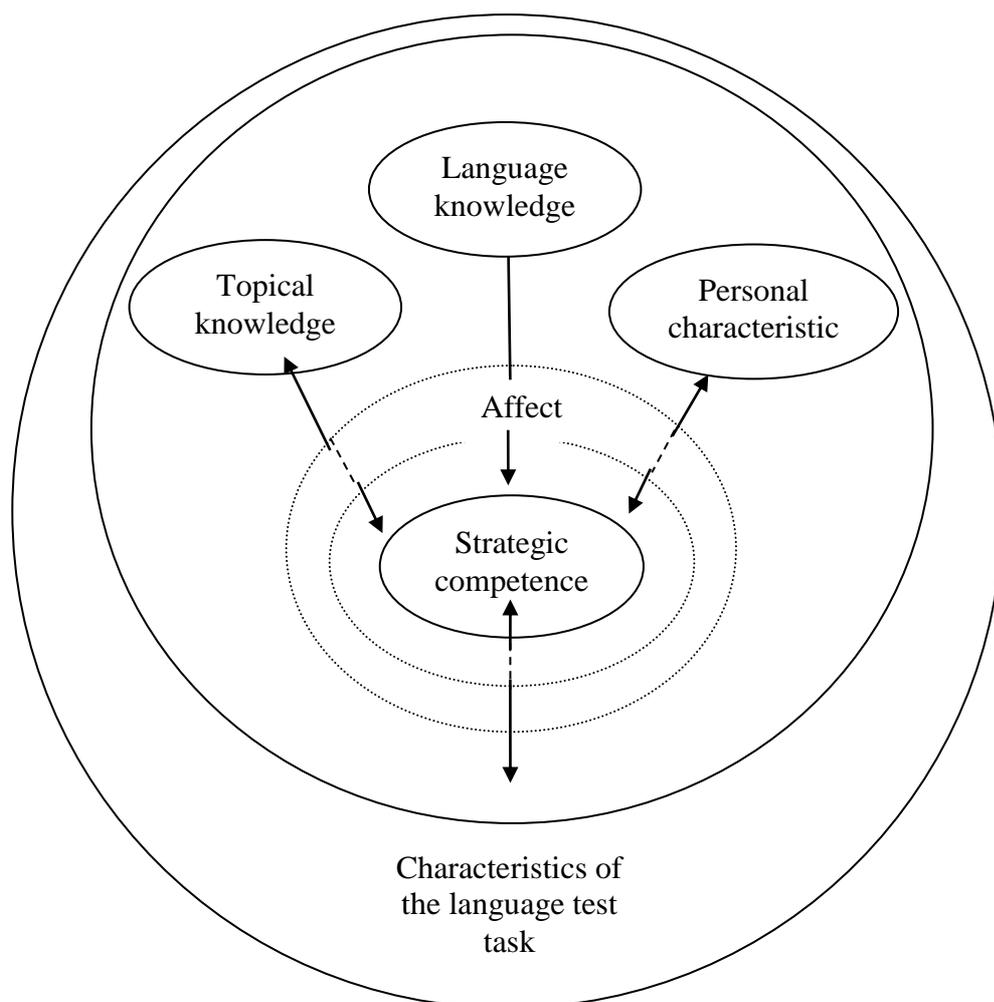
tertiary level learners across different proficiency levels. Existing corpus such as the EMAS or English of Malaysian School Students corpus (Arshad *et al.*, 2002) contain written and spoken texts collected from primary as well as primary school students in Malaysia. The corpus therefore does not represent language productions of Malaysian English language learners at tertiary level. Meanwhile, another corpus such as the Textbook Corpus (Mukundan & Hussin, 2007) consists of collection of school English language textbooks rather than actual meaningful written or spoken texts which have been produced by learners. Moreover, some other available corpus such as the Corpus Archive of Learner English in Sabah/Sarawak (CALES) by Botley and Dillah (2007) as well as the Malaysian Corpus on Student's Argumentative Writings (MCSAW) which was compiled by Loke, Ali, and Anthony (2013) only contain collections of essays written by school and university level learners. In other words, the corpora do not provide samples of spoken productions of Malaysian university students. Thus, analysis on spoken vocabulary produced by Malaysian university students is unlikely possible to be carried out with the use of the CALES or MCSAW.

## **1.8 Theoretical Background of the Study**

The primary goal of learning a second language (L2) is to attain the skills to function competently in the language whenever we are required to. In other words, second language teachings should be carried out with the objective of developing learners' abilities to use the language proficiently and subsequently achieve communicative competence of the language. The term 'communicative competence' until today has been defined and conceptualised in different ways through several communicative competence theories. Nevertheless, a comprehensive communicative language ability model has been proposed by Bachman and Palmer (1996).

In Bachman and Palmer's (1996) model, four major characteristics of a learner are claimed to influence their capability to perform communicative tasks. These include learners' personal characteristics, topical knowledge, affective schemata as well as language ability. All of these four factors or criteria of the

learners are significant to their communicative competence. However, the most critical factor which influences their communicative competence as described in this model is their language ability. Language ability according to Bachman and Palmer (1996) can be divided into two broad criteria namely language knowledge and strategic competence.



**Figure 1.1:** Communicative Language Ability Model by Bachman and Palmer (1996)

Language knowledge is further classified into two different types of knowledge which are organisational knowledge and pragmatic knowledge. These organisational and pragmatic knowledge are interrelated and play equally important

roles in driving learners to use the language competently in communication. The significance of vocabulary knowledge, which is the main focus of the present study is highlighted in this model as it is included as one of the important aspects of organisational knowledge of learners. Specifically, vocabulary knowledge is placed under the sub-area of organisational knowledge, which is grammatical knowledge. The other aspects of grammatical knowledge include syntax and phonology or graphology.

Vocabulary can be defined as “the basic building blocks of language, the units of meaning from which larger structures such as sentences, paragraphs, and whole texts are formed” (Read, 2000:1). It is a central component of a language which leads meaningful communication to occur. Thus, vocabulary is regarded as a fundamental element to language use (Milton, 2009) and no language production can take place without it. Reflecting the prominence of vocabulary to language acquisition of learners, Wilkins (1972:111) contends that "while without grammar little can be conveyed, without vocabulary nothing can be conveyed". Learning and acquiring a proper amount of vocabulary of the target language is therefore necessary for learners in order to be able to perform a variety of receptive and productive tasks in the language (Nation, 1990). Adequate vocabulary knowledge allows learners to read and listen to English texts more proficiently. A large amount of appropriate vocabulary also provides learners with a wider range of lexical access to produce comprehensible language output in terms of speaking and writing (Schmitt, 2000).

A model of lexical competence was proposed by Henriksen (1999) to explain the various aspects involved in learners’ vocabulary knowledge development process. Through this model, Henriksen (1999) claims that vocabulary knowledge of learners is built on three main dimensions specifically 1) partial to precise knowledge dimension, 2) depth of knowledge dimension as well as 3) receptive to productive dimension. Generally, the model suggests that the incremental nature of vocabulary knowledge acquisition takes place through these three distinct but related vocabulary knowledge dimensions, which at the end contributes to the lexical competence of learners (ibid). In line with Henriksen (1999), Nation (2001) explains there are two vocabulary dimensions which involve in learners’ vocabulary knowledge, namely the

receptive vocabulary as well as productive vocabulary. While receptive vocabulary is needed to understand words encountered in reading and listening, productive vocabulary on the other hand is useful for learners to form meaningful language structures to be expressed through speaking or writing (Nation, 2001).

In clarifying vocabulary target for learners, Nation (1990) highlights four types of vocabulary inclusive of the high frequency vocabulary, academic vocabulary, low frequency vocabulary as well as technical vocabulary. Additionally, Schmitt and Schmitt (2014) have proposed the notion of mid-frequency vocabulary. The high frequency vocabulary according to Nation (1990) is the core vocabulary of the language. It contains the most useful words of the language such as *the*, *be*, and *because* (Nation & Kyongho, 1995). The high frequency vocabulary can be found very frequently across various types of English texts. In this regard, the General Service List (GSL) (West, 1953) which consists of the first 2000 most frequent word families of English language is the most widely known high frequency vocabulary.

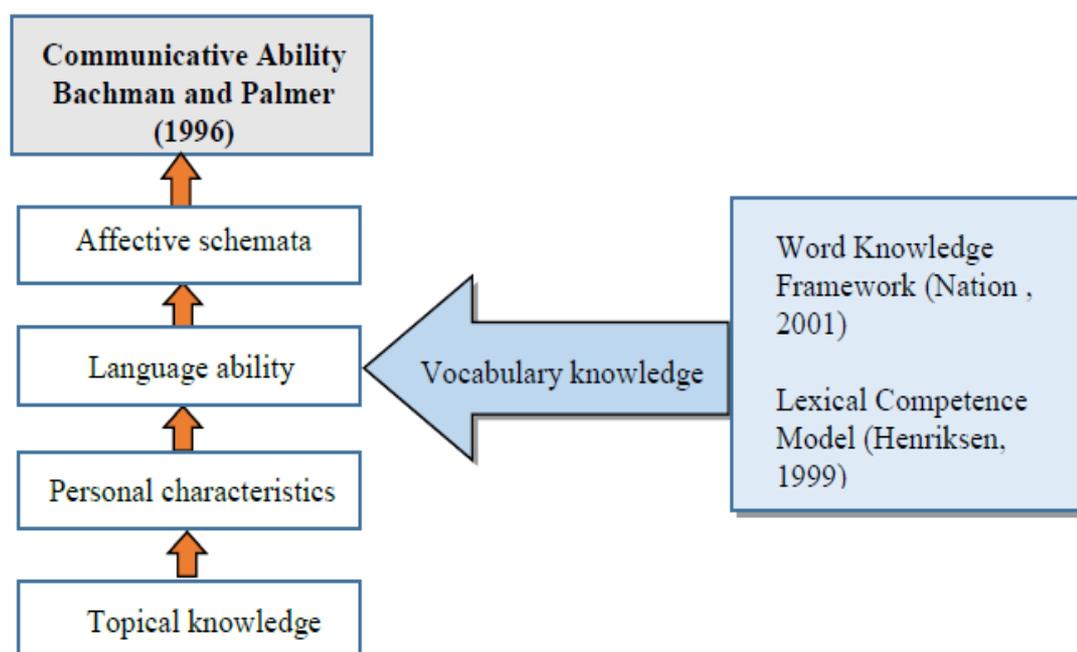
After the high frequency vocabulary, learners who intend to use English language for academic purpose need to learn academic vocabulary (Nation & Waring, 2002; Nation, 1990; Schmitt & Schmitt, 2014). Academic vocabulary is the vocabulary which is used frequently across a wide range of academic texts, and it is not included in the first 2000 most frequent word families (GSL). The earliest academic vocabulary list was developed by Xue and Nation (1984) and called as University Word List (UWL). UWL consists of 836 word families of academic vocabulary which are not included in the GSL but have high occurrence rate in academic texts. A new academic vocabulary list known as the Academic Word List (AWL) developed by Coxhead (2000) is also widely used in vocabulary education and research.

The mid-frequency vocabulary entails the vocabulary beyond the high frequency vocabulary but before the low frequency vocabulary (Schmitt & Schmitt, 2014). Specifically, mid-frequency vocabulary consists of the vocabulary beyond the 3000 frequency level and below the 9000 frequency level. The mid-frequency vocabulary (4000 to 8000 word families) is important to be acquired by learners as

they want to adequately engage with English for authentic purposes such as reading newspapers and novels as well as watching a wide range of TV programs (ibid).

The low frequency vocabulary on the other hand comprises of words which occur very infrequently in general English texts and their appearance in the texts is limited to certain contexts or disciplines (Nation, 2011). Thus, low frequency vocabulary according to Schmitt and Schmitt (2014) has very limited utility in the language use. Specifically, the low frequency vocabulary consists of the vocabulary beyond the 9000 frequency bands. In other words, the low frequency vocabulary is comprised of the vocabulary beyond the 9000 most frequent word families of English language. As for the technical vocabulary, it is defined as the vocabulary which is highly or moderately used in specialised texts. Technical vocabulary is very much related to the subject which the texts are discussing thus it can be considered as an important part which contributes to learners' knowledge of the subjects which they read or listen to in the texts (Chung & Nation, 2004).

Nation and Kyongho (1995) assert that it is essential for language teachers to become aware of the needs and benefits of teaching these different types of English language vocabulary to learners. This is to ensure that a principled and selective vocabulary teaching is incorporated in language classrooms hence greater benefits are gained for the cost of the vocabulary teaching and learning. Figure 1.2 illustrates the theoretical framework of the study.



**Figure 1.2:** Theoretical framework of the study

One primary purpose of learning a language is to be able to communicate effectively in the language. Bachman and Palmer (1996) claim language ability of learners as one of the factors which influence their ability to function effectively in the language. In this respect, vocabulary knowledge is one of the significant aspects covering language ability of learners (ibid). As shown in Figure 1.2, the two frameworks which describe in detail the aspects related to vocabulary or word knowledge of learners are the word knowledge framework by Nation (2001) and the Lexical Competence model by Henriksen (1999). According to Henriksen (1999), receptive and productive knowledge are important dimensions which explain the complexity of vocabulary knowledge of learners. In line with Henriksen (1999), Nation (2001) advocates that word is known by learners either receptively or productively. While receptive vocabulary is necessary to understand the meanings of words encountered in reading and listening, productive vocabulary on the other hand is useful for learners to form meaningful language structures to be expressed through speaking or writing (Nation, 2001).

To verify learners' receptive or productive vocabulary knowledge, Nation (2001) proposes nine sub-knowledge aspects which could be examined. These include 1) knowledge of the spoken form of the language, 2) knowledge of the written form of the word, 3) knowledge of the parts of the word, 4) knowledge of the link between the word form and meaning, 5) knowledge of concepts linked to the word, 6) knowledge of other vocabulary associated to that particular word, 7) knowledge of grammatical functions related to the word, 8) knowledge of collocations which accompany that particular word and lastly 9) knowledge of the word's register and frequency. Considering the limited time available for the present study to be conducted as well as a limitation in vocabulary tests with constructs to assess all the nine sub-knowledge aspects, the present study therefore focuses on four out of the nine sub-knowledge aspects in gauging the receptive and productive vocabulary knowledge of Malaysian undergraduate students at different proficiency levels. These include their knowledge of the spoken form of a word, knowledge of the written form of a word, knowledge of the link between word form and meaning and lastly knowledge of collocations which accompany a word. From examining and understanding the receptive and productive vocabulary capability and needs of the students, this will facilitate in development of their vocabulary knowledge which subsequently contributes to the enhancement of their overall language proficiency and communicative ability (Bachman & Palmer, 1996).

## **1.9 Conceptual Framework of the Study**

Guided by the theoretical background, a conceptual framework of the research procedures carried out in the study is generated (refer Figure 1.3 for illustration of the conceptual framework). The conceptual framework in a way shows how the two key research questions of the study are answered.

Referring to Figure 1.3, the focus of investigation of the study is the English language vocabulary knowledge of Malaysian university students across different proficiency levels. Hence, the point of departure of this study is the receptive and productive vocabulary knowledge of the students. A gap is identified in the lack of

research studies which explore the profiles of receptive and productive vocabulary of Malaysian university students across different proficiency levels by assessing both the receptive and productive vocabulary knowledge aspects through multiple vocabulary assessment measures in a single study. Previous studies (Engku Ibrahim *et al.*, 2013; Harji *et al.*, 2015; Jamian *et al.*, 2008; Kaur, 2013a; Mathai *et al.*, 2004; Mokhtar, 2010) have been reviewed to establish the relevance of conducting the present study.

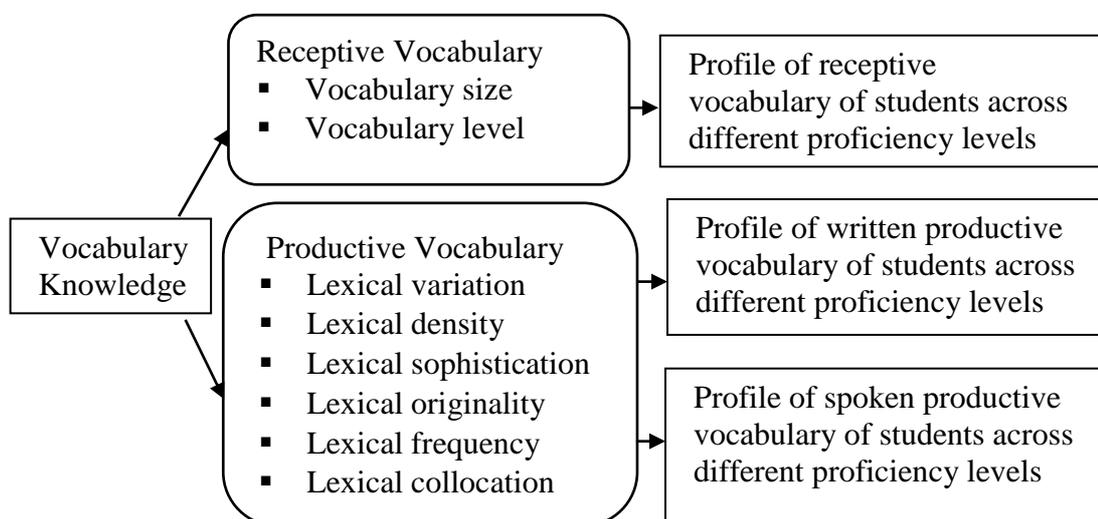
In this study, receptive vocabulary knowledge of the students was examined in terms of level and size. Therefore, two receptive vocabulary tests had been employed. The Vocabulary Size Test by Nation and Beglar (2007) was used to measure the total size of English vocabulary known by the students while the Vocabulary Level Tests by Schmitt, Schmitt and Clapham (2001) was administered to gauge their acquisition of English words at different word levels. The first research question of the study was answered as the results of the receptive vocabulary tests which the students had obtained were analysed.

Meanwhile, the productive vocabulary knowledge was explored by analysing the lexical items which the students produced as they speak and write in the language. The analysis in specific focuses on six lexical variables namely lexical variation, lexical density, lexical sophistication, lexical originality, lexical collocation as well as lexical frequency within the speeches and essays of the students. Specifically, the speeches and essays are parts of the Corpus of Malaysian Learner Spoken English (CORMALESE) as well as Corpus of Malaysian Learner Written English (CORMALWE) which had been compiled for the purpose of the study.

Lexical analyses of the speeches and essays were completed by utilising three online lexical analysis tools namely Compleat Web VP (Cobb, 2016a), Textalyser (Textalyser.net, 2004) and Text Lex Compare v.3 (Cobb, 2016b). The second research question of the study was answered as the corpus-based lexical analyses revealed the results of lexical variation, lexical density, lexical sophistication, lexical originality, lexical collocation as well as lexical frequency within the speeches and

essays of the students. The results in specific revealed the extent to which the students across different proficiency levels utilised their written and spoken productive vocabulary repertoire to produce written and spoken vocabulary items in order to perform the writing as well as speaking tasks assigned in the study.

In sum, the two key research questions of the study were answered by analysing the results of the students' receptive vocabulary tests scores as well as by examining the six lexical measures within the speeches and essays which they performed. This eventually led to the development of the profiles of English language receptive and productive vocabulary of Malaysian university students across different proficiency levels.



**Figure 1.3:** Conceptual framework of the study

## 1.10 Definition of the Key Terms

### 1.10.1 Vocabulary

Read (2000:1) defines vocabulary as “the basic building blocks of language, the units of meaning from which larger structures such as sentences, paragraphs, and whole texts are formed”. Thus, vocabulary may consist of a single item, phrases or word chunks which are used to express meanings (Alfaki, 2015). Commonly, vocabulary knowledge of learners is distinguished in terms of receptive and

productive vocabulary knowledge (Nation, 2001). In this study, these two aspects of learners' vocabulary knowledge will be focused on. Furthermore, the term vocabulary, word, and lexis are used interchangeably throughout this thesis.

### **1.10.2 Vocabulary Knowledge**

Vocabulary knowledge as explained by Nation (2001) entails the knowledge of three aspects of a word namely form, meaning and usage. In specific, vocabulary knowledge refers to one's ability to identify the form of a word, understand what does the word mean and also able to use the word correctly either in spoken or written forms (Batia Laufer & Goldstein, 2004).

### **1.10.3 Receptive Vocabulary**

Receptive vocabulary relates to words which are known and understood by learners as they are encountered in written or spoken texts (Nation, 2001). In this study, receptive vocabulary knowledge of the students is assessed in terms of size and level. Receptive vocabulary size is determined by the total number of English word families which the students know. Meanwhile, receptive vocabulary knowledge level is measured based on five word levels specifically the 2000 word frequency level, 3000 word frequency level, 5000 word frequency level, Academic Word level as well as the 10 000 word frequency level.

### **1.10.4 Productive Vocabulary**

Productive vocabulary relates to words which learners produce or write in order to form and deliver messages through speaking and writing (Nation, 2001). In this study, productive vocabulary of learners is assessed via corpus-based spoken and written vocabulary analyses focusing on six lexical measures specifically lexical variation, lexical density, lexical sophistication, lexical originality, lexical

collocation as well as lexical frequency. To this end, two corpora namely the corpus of Malaysian learner spoken English (CORMALESE) and the corpus of Malaysian learner written English (CORMALWE) had been compiled for the purpose of the study.

### **1.10.5 Corpus**

Corpus is defined as a collection of written or spoken material whereby computer storage and software are used to analyse it in order to explore its patterns of language use (Cambridge Dictionary, 2016). In this study, a picture description speaking task and descriptive essays writing task were administered to the students in order to elicit their spoken and written productions which later was compiled as the Corpus of Malaysian Learner Spoken English (CORMALESE) and the Corpus of Malaysian Learner Written English (CORMALWE). For the purpose of the study, parts of the corpora were analysed in order to examine how the students accessed their written and spoken productive vocabulary knowledge in performing both the writing and speaking tasks assigned in study and eventually develop the profiles of written as well as spoken productive vocabulary of Malaysian university students.

### **1.10.6 Lexical Variation**

Lexical variation refers to type-token ratio (TTR), in which the number of different words (types) is compared with the total number of running words (tokens) in the text (Batia Laufer & Nation, 1995).

### **1.10.7 Lexical Density**

Lexical density in this study refers to the proportion of content words such as nouns, lexical verbs, adjectives and non-grammaticalised adverbs contained in a text (Johansson, 2008).

### **1.10.8 Lexical Sophistication**

Lexical sophistication refers to the proportion of advanced or low frequency words contained in the spoken and written discourse produced by learners (Read, 2000). In this study, low frequency or advanced words are defined as the words which are at the 3000 frequency levels and beyond as listed in the Nation's BNC-COCA frequency lists (Cobb, 2016a). Hence, any words which are of the 3000 most frequent word families and lower frequency levels found in the speeches and essays of the students contribute to lexical sophistication.

### **1.10.9 Lexical Originality**

Lexical originality refers to “words in a given piece of writing that are used by one particular writer and no one else in the group” (Laufer & Nation, 1995:309). In this study, lexical originality relates to the words produced or written by students of a proficiency group and not found in essays or speeches of students of other proficiency groups. In other words, lexical originality indicates words which are unique to that particular group, as it is not used by students of other groups.

### **1.10.10 Lexical Collocation**

Molavi, Koosha and Hosseini (2014:67) explain that “collocations are words that occur together with high frequency and refer to the combination of words that have a certain mutual expectancy”. Benson, Benson, and Ilson (1997) categorise collocations into two namely lexical collocation and grammatical collocation. Grammatical collocation is a combination of main words such as noun, adjective, verb or adverb with a preposition, infinitives or ‘that-clauses’. Meanwhile, lexical collocations refer to lexical words from nouns, adjectives, verbs and adverbs which co-occur. In this study, analyses on lexical collocation contained in the students’ speeches and essays are carried out based on the six lexical collocation categories by Benson *et al.*, (1997), specifically 1) Verb + Noun/ pronoun/ prepositional phrase, 2)

Adjective + Noun, 3) Noun + Verb, 4) Noun + of + Noun, 5) Adverb + Adjective and 6) Verb + Adverb.

#### **1.10.11 Lexical Frequency**

Lexical frequency in this study refers to vocabulary used in the students' essays and speeches which come from the General Service List (GSL), Academic Word List (AWL) and the Off-list words (words which do not belong to either GSL or AWL). This is similar to the Lexical Frequency Profile (LFP) proposed by Laufer and Nation (1995). Moreover, the present study classified any proper nouns which the students wrote or produced as the Off-list words. Hence, whenever Off-list words are mentioned in the study, this refers to proper nouns and words which do not belong either to the GSL or AWL.

#### **1.10.12 Vocabulary Profile**

Vocabulary profile in this study refers to the profiles of receptive and productive vocabulary of students across various proficiency levels, which result from the assessment of receptive and productive vocabulary of the students. The profile of receptive vocabulary indicates the size and level of receptive vocabulary of the students. Meanwhile, the profile of productive vocabulary describes the written and spoken productive vocabulary which the students produced through their essays and speeches in terms of lexical variation, lexical density, lexical frequency, lexical sophistication, lexical originality and lexical collocation.

### **1.11 Chapter Summary**

This thesis is presented in five chapters. In the present chapter, explanation on the research background, statement of the problem, purpose of the study, objectives of the study, research questions, and scope of the study as well as

significance of the study is provided. In addition, the present chapter describes the theoretical and conceptual frameworks which underpin the research study. Definitions of the key terms used in the study are also provided. In Chapter Two, a comprehensive review of the literature related to this research study are presented. Meanwhile, Chapter Three describes the methodology employed in the study, relating to the research design, data collection procedures as well as data analysis procedures. Important results obtained to answer the two key research questions of the study along with the discussions and interpretations of the findings are presented in Chapter Four. Finally, the conclusions, implications of the study and recommendations for future research are explained in the concluding chapter, which is Chapter Five.

- China: Oxford University Press.
- Cai, W. (2015). Investigating the roles of vocabulary knowledge and word recognition speed in Chinese language listening. *Chinese as a Second Language Research*, 4(1), 47–65. <http://doi.org/10.1515/caslar-2015-0003>
- Cambridge Dictionary (2016). Corpus. Retrieved June 14, 2016, from <http://dictionary.cambridge.org/dictionary/english/corpus>
- Catalan, R.M. J., & Espinosa, S. M. (2005). Using Lex30 to measure the L2 productive vocabulary of Spanish primary learners of EFL. *Vigo International Journal of Applied Linguistics*, 2, 27–44.
- Chadderton, C., & Torrance, H. (2011). Case study. In B. Somekh & C. Lewin (Eds.), *Theory and Methods in Social Research* (2nd ed.), pp. 53–60. London: SAGE Publications Ltd.
- Chan, T.P. & Liou, H.C. (2005). Effects of web-based concordancing instruction on EFL students' learning of verb-noun collocations. *Computer Assisted Language Learning*, 18(3), 231–251.
- Chon, Y. V., & Shin, D. (2013). A corpus-driven analysis of spoken and written academic collocations. *Multimedia-Assisted Language Learning*, 16(3), 11–38.
- Chung, T. M., & Nation, P. (2004). Identifying technical vocabulary. *System*, 32(2), 251–263. <http://doi.org/10.1016/j.system.2003.11.008>
- Cobb, T. (2007). Computing the vocabulary demands of L2 reading. *Language Learning & Technology*, 11(3), 38–63.
- Cobb, T. (2016a). Compleat Web VP. Retrieved July 21 2016, from <http://www.lex tutor.ca/vp/comp/>
- Cobb, T. (2016b). Text Lex Compare v.3. Retrieved August 4, 2016, from [http://www.lex tutor.ca/cgi-bin/tl\\_compare/](http://www.lex tutor.ca/cgi-bin/tl_compare/)
- Cobb, T. (2016c). VocabProfile. Retrieved February 11, 2016, from <http://www.lex tutor.ca/vp/comp/>
- Council of Europe. (2017). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. Council of Europe. Retrieved from <http://universitypublishingonline.org/cambridge/histories/ebook.jsf?bid=CBO9781139055895%5Cnhttp://www.cambridge.org/ca/academic/subjects/history/european-history-general-interest/new-cambridge-modern-history-volume-13?format=HB>

- Coxhead, A. (2000). A new Academic Word List. *TESOL Quarterly*, 34(2), 213–238.
- Coxhead, A., Nation, P., & Sim, D. (2014). Creating and trialling six versions of the Vocabulary Size Test. *TESOLANZ Journal*, 22, 13–26.
- Dang, T. N. Y. (2017). *Investigating vocabulary in academic spoken english: Corpora, teachers and learners* (Unpublished Doctoral Thesis). Victoria University of Wellington.
- Dang, T. N. Y., & Webb, S. (2014). The lexical profile of academic spoken English. *English for Specific Purposes*, 33(1), 66–76.  
<http://doi.org/10.1016/j.esp.2013.08.001>
- Daniel, M. (2010). *Doing Quantitative Research in Education with SPSS* (2nd ed.). London: SAGE Publications.
- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of Qualitative Research* (2nd ed.). Thousand Oaks, CA: Sage.
- Derwing, M. T., & Munro, J. M. (2013). The development of L2 oral language skills in two L1 groups: A 7-year study. *Language Learning*, 63(2), 163–185.
- Dewaele, J. M., & Pavlenko, A. (2003). Productivity and lexical diversity in native and non-native speech: A study of cross-cultural effects. In V. Cook (Eds.), *The Effects of the Second Language on the First* (pp. 120–141). Dublin: Multilingual Matters.
- Dörnyei, Z. (2007). *Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies*. Oxford: Oxford University Press.
- Douglas, S. R. (2010). *Non-native English speaking students at university: Lexical richness and academic success* (Unpublished Doctoral Thesis). University of Calgary.
- Douglas, S. R. (2013). The lexical breadth of undergraduate novice level writing competency. *The Canadian Journal of Applied Linguistics*, 16(1), 152–170.
- Douglas, S. R. (2015). The relationship between lexical frequency profiling measures and rater judgements of spoken and written general English language proficiency on the CELPIP-General Test. *TESL Canada Journal*, 32(9), 43–64.  
<http://doi.org/10.18806/tesl.v32i0.1217>
- Ebrahimi-Bazzaz, F., Abd Samad, A., Ismail, I. A., & Noordin, N. (2015). Verb-noun collocations in written discourse of Iranian EFL learners. *International Journal of Applied Linguistics and English Literature*, 4(4), 186–191.

- <http://doi.org/10.7575/aiac.ijalel.v.4n.4p.186>
- Ebrahimi-Bazzaz, F., AbdSamad, A., Ismail, I. A., & Noordin, N. (2015). Verb-noun collocations in spoken discourse of Iranian EFL learners. *International Journal on Studies in English Language and Literature*, 3(3), 41–50.  
<http://doi.org/10.7575/aiac.ijalel.v.4n.4p.186>
- Elgort, I., & Nation, P. (2010). Vocabulary learning in a second language: Familiar answers to new questions. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualizing Learning in Applied Linguistics*, pp. 89-104. New York: Palgrave Macmillan.
- Ellis, R. (2005). *Planning and Task Performance in a Second Language*. Amsterdam: John Benjamins.
- Engku Ibrahim, E. H., Othman, K., Sarudin, I., & Muhamad, A. J. (2013). Measuring the vocabulary size of Muslim pre-university students. *World Applied Sciences Journal*, 21(Special Issue of Studies in Language Teaching and Learning), 44–49. <http://doi.org/10.5829/idosi.wasj.2013.21.s1l.2136>
- Erman, B., & Lewis, M. (2013). Vocabulary in advanced L2 English speech. In N.L. Johannesson, G. Melchers, & B. Björkman (Eds.), *Of Butterflies and Birds, of Dialects and Genres: Essays in Honour of Philip Shaw* (pp. 93–108). Sweden: Stockholm.
- Farvardin, M. T., & Koosha, M. (2011). The role of vocabulary knowledge in Iranian EFL students' reading comprehension performance: Breadth or depth? *Theory and Practice in Language Studies*, 1(11), 1575–1580.  
<http://doi.org/10.4304/tpls.1.11.1575-1580>
- Fitzpatrick, T. (2007). Word association patterns: Unpacking the assumptions. *International Journal of Applied Linguistics*, 17(3), 319–331.  
<http://doi.org/10.1111/j.1473-4192.2007.00172.x>
- Fitzpatrick, T., & Clenton, J. (2010). The challenge of validation: Assessing the performance of a test of productive vocabulary, *Language Testing*, 27(2), 537-554. <http://doi.org/10.1177/0265532209354771>
- Fitzpatrick, T., & Meara, P. (2004). Exploring the validity of a test of productive vocabulary. *Vigo International Journal of Applied Linguistics*, 1, 55–74.
- Fong, L. L., Sidhu, G. K., & Fook, C. Y. (2014). Exploring 21st century skills among postgraduates in Malaysia. *Procedia - Social and Behavioral Sciences*, 123, 130–138. <http://doi.org/10.1016/j.sbspro.2014.01.1406>

- Foster, P., & Skehan, P. (1999). The influence of source of planning and focus of planning on task-based performance. *Language Teaching Research*, 3(3), 215–247. <http://doi.org/10.1191/136216899672186140>
- Gallego, M., & Llach, M. (2009). Exploring the increase of receptive vocabulary knowledge in the foreign language: A longitudinal study. *International Journal of English Studies*, 9(1), 113–133. Retrieved from <http://dialnet.unirioja.es/servlet/articulo?codigo=3104093>
- González, A. O., & Ramos, M. A. (2013). A comparative study of collocations in a native corpus and a learner corpus of Spanish. *Procedia - Social and Behavioral Sciences*, 95, 563–570.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11(3), 255–274.
- Gregori-Signes, C., & Clavel-Arroitia, B. (2015). Analysing lexical density and lexical diversity in university students' written discourse. *Procedia - Social and Behavioral Sciences*, 198, 546–556. <http://doi.org/10.1016/j.sbspro.2015.07.477>
- Halliday, M. A. K. (1989). *Spoken and Written Language*. Oxford: Oxford University Press.
- Hamilton, L., & Corbett-Whittier, C. (2013). *Using Case Study in Education Research*. London: SAGE Publications Ltd.
- Harji, M. B., Balakrishnan, K., Bhar, S. K., & Letchumanan, K. (2015). Vocabulary levels and size of Malaysian undergraduates. *English Language Teaching*, 8(9), 119–130. <http://doi.org/10.5539/elt.v8n9p119>
- Hazzi, O., & Maldaon, I. (2015). A pilot study: Vital methodological. *Verslas: Teorija Ir Praktika*, 16(1), 53–62. <http://doi.org/10.3846/btp.2015.437>
- Henriksen, B. (1999). Three dimensions of vocabulary development. *Studies in Second Language Acquisition*, 21(2), 303–317. <http://doi.org/10.1017/S0272263199002089>
- Hilton, H. (2008). The link between vocabulary knowledge and spoken L2 fluency. *Language Learning Journal*, 36(2), 153–166. <http://doi.org/10.1080/09571730802389983>
- Hill, J., Lewis, M. and Lewis, M. (2000). Classroom strategies, activities and exercises. In M. Lewis (Ed.), *Teaching Collocation: Further Developments in the Lexical Approach* (pp. 88–117). Hove: Language Teaching Publications.

- Horst, M. (2014). Mainstreaming second language vocabulary acquisition. *Canadian Journal of Applied Linguistics*, 16(1), 171–188.  
<http://journals.hil.unb.ca/index.php/CJAL/article/view/21299>
- Hsu, J. T., & Chiu, C. (2008). Lexical collocations and their relation to speaking proficiency of college EFL learners in Taiwan. *The Asian EFL Journal*, 10(1), 181–204.
- Ibrahim, E. H. E., Sarudin, I., & Muhamad, A. J. (2016). The relationship between vocabulary size and reading comprehension of ESL learners. *English Language Teaching*, 9(2), 116–123. <http://doi.org/10.5539/elt.v9n2p116>
- Ishikawa, S. (2015). Lexical development in L2 English learners' speeches and writings. *Procedia - Social and Behavioral Sciences*, 198, 202–210.  
<http://doi.org/10.1016/j.sbspro.2015.07.437>
- Jamian, L. S., Sidhu, G. K., & Muzafar, M. (2008). Assessing UiTM TESL students' knowledge of vocabulary. *Asian Journal of University Education*, 4(2), 79–100.
- Johansson, V. (2008). Lexical diversity and lexical density in speech and writing : A develop-mental perspective. *Working Papers in Linguistics*, 53, 61–79.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26.  
<http://doi.org/10.3102/0013189X033007014>
- Joo, H. (2014). Investigating Korean high school students' receptive vocabulary knowledge and reading speed. *Secondary English Education*, 7(3), 99–120.
- Kaneko, M. (2013). Estimating the reading vocabulary-size goal required for the Tokyo University entrance examination. *The Language Teacher*, 37(4), 40–45.  
 Retrieved from [http://jalt-publications.org/files/pdf-article/37.4tlr\\_art1.pdf](http://jalt-publications.org/files/pdf-article/37.4tlr_art1.pdf).
- Kaneko, M. (2015). Vocabulary size required for the TOEFL iBT listening section. *The Language Teacher*, 39(1), 9–14.
- Kang, Y., Kang, H. S., & Park, J. (2012). Is it vocabulary breadth or depth that better predict Korean EFL learners' reading comprehension? *English Teaching*, 67(4), 149–172. Retrieved from  
<http://ezproxy.upm.edu.my:2196/ehost/pdfviewer/pdfviewer?sid=ff104ac5-a0dc-4a24-8453-c4768bc4d15c%40sessionmgr4002&vid=7&hid=4109>
- Kaur, N. (2013). A case study of tertiary learners' capability in lexical knowledge. *GEMA Online Journal of Language Studies*, 13(1), 113–126.
- Kenji, H. (2000). *How long does it take English learners to attain proficiency.*

- Retrieved August 12 2017 from <https://escholarship.org/uc/item/13w7m06g>
- Khatib, F. M. M., & Maarof, N. (2015). Self-efficacy perception of oral communication ability among English as a Second Language (ESL) technical students. *Procedia - Social and Behavioral Sciences*, 204, 98–104.  
<http://doi.org/10.1016/j.sbspro.2015.08.121>
- Kim, Y. M. (2010). Spoken corpora of EFL learners: Collocations, vocabulary use, and their oral proficiency levels. *Multimedia-Assisted Language Learning*, 13(1), 9–28.
- Koizumi, R. (2005). Predicting speaking ability from vocabulary knowledge. *JLTA Journal*, 7, 1-20.
- Koizumi, R. (2012). Relationships between text length and lexical diversity measures: Can we use short texts of less than 100 tokens? *Vocabulary Learning and Instruction*, 1(1), 60–69. <http://doi.org/10.7820/vli.v01.1.koizumi>
- Koizumi, R., & In'nami, Y. (2013). Vocabulary knowledge and speaking proficiency among second language learners from novice to intermediate levels. *Journal of Language Teaching and Research*, 4(5), 900–913.  
<http://doi.org/10.4304/jltr.4.5.900-913>
- Laufer, B. (1991). The development of L2 lexis in the expression of the advanced learner. *The Modern Language Journal*, 75(4), 440–448.  
<http://doi.org/10.1111/j.1540-4781.1991.tb05380.x>
- Laufer, B. (1994). The lexical profile of second language writing: Does it change over time? *RELC Journal*, 25(2), 21–33.  
<http://doi.org/10.1177/003368829402500202>
- Laufer, B. (1998). The development of passive and active vocabulary in a second language : Same or different ? *Applied Linguistics*, 19(2), 255–271.  
<http://doi.org/10.1093/applin/19.2.255>
- Laufer, B. (2005). Focus on form in second language vocabulary learning. *EUROSLA Yearbook*, 5, 223–250.
- Laufer, B. (2013). Lexical thresholds for reading comprehension: What they are and how they can be used for teaching purposes. *TESOL Quarterly*, 47(4), 867–872.  
<http://doi.org/10.1002/tesq.140>
- Laufer, B., Elder, C., Hill, K., & Congdon, P. (2004). Size and strength: Do we need both to measure vocabulary knowledge? *Language Testing*, 21(2), 202–226.  
<http://doi.org/10.1191/0265532204lt277oa>

- Laufer, B., & Goldstein, Z. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. *Language Learning*, 54(3), 399–436.  
<http://doi.org/10.1111/j.0023-8333.2004.00260.x>
- Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, 16(3), 307–322.  
<http://doi.org/10.1093/applin/16.3.307>
- Laufer, B., & Nation, P. (1999). A vocabulary-size test of controlled productive ability. *Language Teaching*, 16(1), 33–51.  
<http://doi.org/10.1191/026553299672614616>
- Laufer, B., & Ravenhorst-Kalovski, G. C. (2010). Lexical threshold revisited: Lexical text coverage, learners' vocabulary size and reading comprehension. *Reading in a Foreign Language*, 22(1), 15–30.
- Laufer, B., & Waldman, T. (2011). Verb-noun collocations in second language writing: A corpus analysis of learners' English. *Language Learning*, 61(2), 647–672.
- Lavalle, Pamela I. and Briesmaster, Mark. (2017). The study of the use of picture descriptions in enhancing communication skills among the 8th-grade students-learners of English as a foreign language. *i.e.:Inquiry in Education*, 9(1), 34-50.
- Lee, S. H. (2003). ESL learners' vocabulary use in writing and the effects of explicit vocabulary instruction. *System*, 31, 537–561.
- Lee, S. H., & Muncie, J. (2006). From receptive to productive: Improving ESL learners' use of vocabulary in a postreading composition task. *TESOL Quarterly*, 40(2), 295–320.
- Li, L., & MacGregor, L. J. (2010). Investigating the receptive vocabulary size of university-level Chinese learners of English: How suitable is the Vocabulary Levels Test? *Language and Education*, 24(3), 239–249.  
<http://doi.org/10.1080/09500781003642478>
- Lim, H. E., & Bakar, N. (2004). Unemployment duration of graduates of Universiti Utara Malaysia: The impact of English language proficiency. *Malaysian Journal of Economic Studies*, 41(1-2), 1-20.
- Llach, M. P. A. (2005). The relationship of lexical error and their types to the quality of ESL compositions: An empirical study. *Porta Linguarum: Revista Internacional de Didáctica de*, 3, 45–57.  
<http://dialnet.unirioja.es/servlet/articulo?codigo=1153745>

- Llach, M. P. A., & Gallego, M. T. (2009). Examining the relationship between receptive vocabulary size and written skills of primary school learners. *Journal of the Spanish Association of Anglo-American Studies*, 31(1), 129–147.
- Loke, D. L., Ali, J., & Anthony, N. N. Z. (2013). A corpus based study on the use of preposition of time “on” and “at” in argumentative essays of form 4 and form 5 Malaysian students. *English Language Teaching*, 6(9), 128–135.  
<http://doi.org/10.5539/elt.v6n9p128>
- Lopez, S. G., & Lopez, A. L. (2015). Lexical analysis of student research drafts in computing. *Computer Applications in Engineering Education*, 23(4), 638–644.  
<http://doi.org/10.1002/cae.21638>
- Lu, C., & Durrant, P. (2017). A corpus-based lexical analysis of Chinese medicine research articles. *The Asian Journal of Applied Linguistics*, 4(1), 3–15.
- Lu, X. (2010). The relationship of lexical richness to the quality of ESL learners’ oral narratives. *The Modern Language Journal*, 96(2), 190–208.  
<http://doi.org/10.1111/j.1540-4781.2011.01232.x>
- MacSwan, J., & Pray, L. (2005). Learning English bilingually: Age of onset of exposure and rate of acquisition among English language learners in a bilingual education program. *Bilingual Research Journal*, 29(3), 653–678.  
<http://doi.org/10.1080/15235882.2005.10162857>
- Malaysian Examinations Council. (2014). *Malaysian University English Test (MUET): Regulations, Test Specifications, Test Format and Sample Questions*. Retrieved May 20 2016 from [www.mpm.edu.my](http://www.mpm.edu.my)
- Manan, A. A., & Shamsudin, S. (2012). Comparing form four Malay and Chinese students’ spoken English. *The English Teacher*, 51(1), 13–26.
- Mangiafico, S. (2015). *An R Companion For the Handbook of Biological Statistics*. Retrieved August 12, 2017, from [https://rcompanion.org/rcompanion/d\\_06.html](https://rcompanion.org/rcompanion/d_06.html)
- Masoumeh, S., & Rahimy, R. (2014). The effect of lexical frequency knowledge on Iranian EFL learners’ speaking ability. *Modern Journal of Language Teaching Methods*, 4(1), 146–156.
- Mathai, E. J., Jamin, L. S., & Nair, S. (2004). Assessing Malaysian university students’ English vocabulary knowledge. In W. Khanittanan & P. Sidwell (Eds.), *SEALS XIV Volume 1 Papers from the 14th annual meeting of the Southeast Asian Linguistics Society* (Vol. 1, pp. 219–237). Pacific Linguistics.
- McIntosh, C., Francis, B., & Poole, R. (2009). *Oxford Collocations Dictionary for*

*Student of English*. Oxford: Oxford University Press.

- Meara, P. (1980). Vocabulary acquisition: A neglected aspect of language learning. *Language Teaching*, 13(3–4), 221–246.  
<http://doi.org/10.1017/S0261444800008879>
- Meara, P. (1996). The Dimensions of Lexical Competence. In G. Brown, K. Malmkjaer, & J. Williams (Eds.), *Performance and Competence in Second Language Acquisition* (pp. 35–53). Cambridge: Cambridge University Press.
- Meara, P., & Buxton, B. (1987). An alternative to multiple choice vocabulary tests. *Language Testing*, 4(2), 142–154.
- Meara, P., & Fitzpatrick, T. (2000). Lex30: An improved method of assessing productive vocabulary in an L2. *System*, 28(1), 19–30.  
[http://doi.org/10.1016/S0346-251X\(99\)00058-5](http://doi.org/10.1016/S0346-251X(99)00058-5)
- Meara, P., & Jones, G. (1988). Vocabulary size as a placement indicator. In P. Grunwell (Ed.), *Applied Linguistics in Society* (pp. 80–87). London: CILT.
- Mehring, J. (2010). Developing vocabulary in second language acquisition: From theories to the classroom. Retrieved May 21 2016 from  
<http://207.97.208.129/CHSS/LangLing/TESOL/ProfessionalDevelopment/200680TWPfall06/03Mehring.pdf>
- Milton, J. (2009). *Measuring Second Language Vocabulary Acquisition*. Bristol: Multilingual Matters.
- Milton, J. (2013). Measuring the contribution of vocabulary knowledge to proficiency in the four skills. In Bardel, C., Lindqvist, C. and Laufer, B. (eds) *L2 Vocabulary Acquisition, Knowledge and Use: New perspectives on Assessment and Corpus Analysis*, 57-78. Eurosla Monographs Series 2.
- Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015-2025 (Higher education)*. Retrieved 23 May 2016, from  
<http://medcontent.metapress.com/index/A65RM03P4874243N.pdf>
- Moghadam, S. H., Zainal, Z., & Ghaderpour, M. (2012). A review on the important role of vocabulary knowledge in reading comprehension performance. *Procedia - Social and Behavioral Sciences*, 66, 555–563.  
<http://doi.org/10.1016/j.sbspro.2012.11.300>
- Mohd Abd Wahab, A. W. A., & Ismail, N. A. S. (2014). Communication skills and its impact on the marketability of UKM graduates. *International Journal of Higher Education*, 3(4), 64–71. <http://doi.org/10.5430/ijhe.v3n4p64>

- Mokhtar, A. A. (2010). Achieving native-like English lexical knowledge: The non-native story. *Journal of Language Teaching and Research*, 1(4), 343–352. <http://doi.org/10.4304/jltr.1.4.343-352>
- Mokhtar, A. A., Mohd Rawian, R., Yahaya, M. F., Abdullah, A., Mansor, M., Osman, M. I., Zakaria Z.A., Murat.A, Nayan.S, & Mohamed, A. R. (2010). Vocabulary knowledge of adult ESL learners. *English Language Teaching*, 3(1), 71–80. <http://doi.org/10.5539/elt.v3n1p71>
- Molavi, A., Koosha, M., & Hosseini, H. (2014). A comparative corpus-based analysis of lexical collocations used in EFL textbooks. *Latin American Journal of Content and Language Integrated Learning*, 7(1), 66–81. <http://doi.org/10.5294/laclil.2014.7.1.4>
- Mukundan, J., & Hussin, A. A. (2007). A forensic study of vocabulary load and distribution in five Malaysian secondary school English textbooks (Form 1-5). *Pertanika Journal of Social Science and Humanities*, 15(2), 59–74.
- Myers, J. L., Well, A. D., & Lorch, R. F. J. (2010). *Research Design and Statistical Analysis*. Sussex: Routledge.
- Naginder, K., Nor Hayati, O., & Muhammad Kamarul Kabilan, A. (2008). Lexical competence among tertiary students: Teacher-student perspectives. *The English Teacher*, 37 (June 2016), 90–104.
- Nassaji, H. (2006). The relationship between depth of vocabulary knowledge and L2 learners' lexical inferencing strategy use and success. *Canadian Modern Language Review*, 61(1), 107–135. <http://doi.org/10.3138/cmlr.61.1.107>
- Nation, I. S. P. (2001). *Learning Vocabulary in another Language*. Cambridge: Cambridge University Press.
- Nation, I. S. P. (2006). How large a vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63(1), 59–82.
- Nation, P. (2007). The four strands. *Innovation in Language Learning and Teaching*, 1(1), 2–13. <https://doi.org/10.2167/illt039.0>
- Nation, I. S. P. (2011). Research into practice: Vocabulary. *Language Teaching*, 44(4), 529–539. <http://doi.org/10.1017/S0261444811000267>
- Nation, I. S. P. (2013). *Learning Vocabulary in another Language* (2nd ed.). Cambridge: Cambridge University Press.
- Nation, I. S. P. (2014). How much input do you need to learn the most frequent 9,000 words? *Reading in a Foreign Language*, 26(2), 1–16.

- Nation, I. S. P., & Webb, S. (2011). *Researching and Analyzing Vocabulary*. Boston, MA: Heinle.
- Nation, P. (1990). *Teaching and Learning Vocabulary*. New York: Heinle & Heinle.
- Nation, P. (2012a). *The BNC/COCA Word Family Lists 25,000*. Retrieved May 19 2017, from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:The+BNC/COCA+word+family+lists#0>
- Nation, P. (2012b). *Vocabulary Size Test Instruction and Description*. Retrieved August 7, 2015, from <http://www.victoria.ac.nz/lals/about/staff/paul-nation>
- Nation, P. (2015). Principles guiding vocabulary learning through extensive reading. *Reading in a Foreign Language*, 27(1), 136–145.
- Nation, P., & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*, 31(7), 9–13. <http://doi.org/10.1177/0265532209340194>
- Nation, P., & Hu, M. (2000). Vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13(1), 403–430.
- Nation, P., & Kyongho, H. (1995). Where would general service vocabulary stop and special purposes vocabulary begin? *System*, 23(1), 35–41. [http://doi.org/10.1016/0346-251X\(94\)00050-G](http://doi.org/10.1016/0346-251X(94)00050-G)
- Nation, P., & Wang, M.K. (1999). Graded readers and vocabulary. *Reading in a Foreign Language*, 12(2), 355–380.
- Nation, P., & Waring, R. (2002). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, Acquisition and Pedagogy* (pp. 6–19). Cambridge: Cambridge University Press. <http://doi.org/10.1017/CBO9781107415324.004>
- Nation, P., & Yamamoto, A. (2012). Applying the four strands to language learning. *International Journal of Innovation in English Language Teaching*, 1(2), 167–181. <https://doi.org/10.1016/B978-1-4557-5316-1.00028-2>
- NCH Software. (2017). Express Scribe Transcription Software. Retrieved February 20, 2017, from <http://www.nch.com.au/scribe/>
- Nizonkiza, D. (2012). Quantifying controlled productive knowledge of collocations across proficiency and word frequency levels. *Studies in Second Language Learning and Teaching*, 2(1), 67–92. Retrieved from <http://www.ceeol.com/aspx/getdocument.aspx?logid=5&id=f2d7c0bc59054759b12e7e0ad3a0a21e>

- Nushi, M., & Jenabzadeh, H. (2016). Teaching and learning academic vocabulary. *California Linguistic Notes*, 40(2), 51–70.
- Ordonez, C. L., Carlo, M. S., Snow, C. E., & McLaughlin, B. (2002). Depth and breadth of vocabulary in two languages: Which vocabulary skills transfer? *Journal of Educational Psychology*, 94, 719–728.
- Oya, T., Manalo, E., & Greenwood, J. (2009). The influence of language contact and vocabulary knowledge on the speaking performance of Japanese students of English. *The Open Applied Linguistics Journal*, 2(1), 11–21.  
<http://doi.org/10.2174/1874913500902010011>
- Qian, D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. *The Canadian Modern Language Review*, 56, 282–308.
- Qian, D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52(3), 513–536.
- Quinn, G., & Keough. M. (2003). *Experimental Design and Data Analysis for Biologists*. Cambridge: Cambridge University Press.
- Rahimi, M., & Momeni, G. (2012). The effect of teaching collocations on English language proficiency. *Procedia - Social and Behavioral Sciences*, 31, 37–42.  
<http://doi.org/10.1016/j.sbspro.2011.12.013>
- Rashidi, N., & Khosravi, N. (2010). Assessing the role of depth and breadth of vocabulary knowledge in reading comprehension of Iranian EFL learners. *Pan-Pacific Association of Applied Linguistics*, 14(1), 81–108. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=13458353&AN=57764505&h=FweD96zUUQa/Mc7HV70dljc7QuCXlnbDjRFcwwh696Z+2tT5WuRgFjIsg5iZZW8qqN7aoVKEjREvK2k8u/9aqQ==&crl=c>
- Rasinger, S. M. (2013). *Quantitative Research in Linguistics: An Introduction*. London: Bloomsbury.
- Read, J. (1988). Measuring the vocabulary knowledge of second language learners. *RELC Journal*, 19(2), 12–25. <http://doi.org/10.1177/003368828801900202>
- Read, J. (1993). The development of a new measure of L2 vocabulary knowledge. *Language Testing*, 10(3), 355–371.  
<http://doi.org/10.1177/026553229301000308>

- Read, J. (2000). *Assessing Vocabulary*. Cambridge: Cambridge University Press.
- Rethinasamy, S., & Chuah, K. M. (2011). The Malaysian university English test (MUET) and its use for placement purposes: A predictive validity study. *Electronic Journal of Foreign Language Teaching*, 8(2), 234–245.  
<http://doi.org/10.2139/ssrn.2146007>
- Robinson, P. (2001). Task complexity, task difficulty and task production: Exploring interactions in a componential framework. *Applied Linguistics*, 22(1), 27–57.
- Rogier, D. (2012). *The Effects of English-Medium Instruction on Language Proficiency of Students Enrolled in Higher Education in the UAE* (Unpublished Doctoral Thesis). The University of Exeter.
- Ross, A., & Wilson, V. L. (2017). *Basic and Advanced Statistical Tests*. Sense Publishers: Rotterdam.
- Rouhi, M., & Negari, G. M. (2013). EFL learners' vocabulary knowledge and its role in their reading comprehension performance. *Journal of Second and Multiple Language Acquisition*, 1(2), 39–48.
- Rumsey, D. J. (2007). *Intermediate Statistics for Dummies*. Indiana: Wiley Publishing.
- Sadeghi, K., & Panahifar, F. (2013). A Corpus-based analysis of collocational errors in the Iranian EFL learners' oral production. *The Journal of Teaching Language Skills*, 4(4), 53–78.
- Sadoughvanini, S. (2014). *Spoken Collocation Errors of Iranian Postgraduate Students* (Unpublished Doctoral Thesis). Universiti Teknologi Malaysia.
- Saito, K., Webb, S., Trofimovich, P., & Isaacs, T. (2016). Lexical profiles of comprehensible second language speech: The role of appropriateness, fluency, variation, sophistication, abstractness, and sense relations. *Studies in Second Language Acquisition*, 38(4), 677–701.
- Saudin, H. (2014). The realization of collocation in EFL students' written texts across three proficiency levels. *Proceedings of the 61<sup>st</sup> TEFLIN International Conference* (pp.367-370). Retrieved 20 July 2017, from <https://eprints.uns.ac.id/26889/>
- Schmitt, N. (2000). *Vocabulary in Language Teaching*. New York: Cambridge University Press.
- Schmitt, N. (2008). State of the art: Instructed second language vocabulary acquisition. *Language Teaching Research*, 12, 329–363.

- Schmitt, N., Cobb, T., Horst, M., & Schmitt, D. (2015). How much vocabulary is needed to use English? Replication of van Zeeland & Schmitt (2012), Nation (2006) and Cobb (2007). *Language Teaching*, 50(2), 212–226.  
<http://doi.org/10.1017/S0261444815000075>
- Schmitt, N., Jiang, X., & Grabe, W. (2011). The percentage of words known in a text and reading comprehension. *The Modern Language Journal*, 95(1), 26–43.  
<http://doi.org/10.1111/j.1540-4781.2011.01146.x>
- Schmitt, N., & Schmitt, D. (2014). A reassessment of frequency and vocabulary size in L2 vocabulary teaching. *Language Teaching*, 47(4), 484–503.  
<http://doi.org/10.1017/S0261444812000018>
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two versions of the vocabulary levels test. *Language Testing*, 18(1), 55–88. <http://doi.org/10.1177/026553220101800103>
- Schofield, W. (2006). Survey sampling. In R. Sapsford & V. Jupp (Eds.), *Data Collection and Analysis* (2nd ed.), pp. 26–54. London: SAGE Publications Ltd.
- Segalowitz, N. (2010). *Cognitive Bases of Second Language Fluency*. New York: Routledge.
- Shah, S. K., Gill, A. A., Mahmood, R., & Bilal, M. (2013). Lexical richness, a reliable measure of intermediate L2 learners' current status of acquisition of English language. *Journal of Education and Practice*, 4(6), 42–47.
- Shi, L., & Qian, D. (2012). How does vocabulary knowledge affect Chinese EFL learners' writing quality in web-based settings? Evaluating the relationships among three dimensions of vocabulary knowledge and writing quality. *Chinese Journal of Applied Linguistics*, 35(1), 117–127. <http://doi.org/10.1515/cjal-2012-0009>
- Skehan, P., & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language Teaching Research*, 1(3), 185–211. <http://doi.org/10.1177/136216889700100302>
- Stæhr, L. S. (2008). Vocabulary size and the skills of listening, reading and writing. *The Language Learning Journal*, 36(2), 139–152.  
<http://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. <http://doi.org/10.1017/S0272263109990039>

- Sun, Y.C. and Wang, L.Y. (2003) Concordancers in the EFL classroom: Cognitive approaches and collocation difficulty. *Computer Assisted Language Learning*, 16(1): 83–94.
- Teng, F. (2014). Assessing the depth and breadth of vocabulary knowledge with listening comprehension. *PASSA*, 48(2), 29–56.
- Textalyser.net. (2004). Textalyser. Retrieved May 2, 2016, from <http://textalyser.net/>
- Thorndike, E., & Lorge, I. (1944). *The Teacher's Word Book of 30000 Words*. New York: Teacher College, Columbia University.
- Treffers-Daller, J., & Milton, J. (2013). Vocabulary size revisited: The link between vocabulary size and academic achievement. *Applied Linguistics Review*, 4(1), 151–172. <http://doi.org/10.1515/applirev-2013-0007>
- Uchihara, T., & Saito, K. (2016). Exploring the relationship between productive vocabulary knowledge and second language oral ability. *Language Learning Journal*, Published online 27 July 2016, <http://doi.org/10.1080/09571736.2016.1191527>
- Varnaseri, M., & Farvardin, M. T. (2016). The relationship between depth and breadth of vocabulary knowledge and writing performance of Iranian MA students of TEFL. *Modern Journal of Language Teaching Methods*, 6(2), 544–554.
- Verma, J. (2013). *Data Analysis in Management with SPSS Software*. New Delhi: Springer.
- Vermeer, A. (2001). Breadth and depth of vocabulary in relation to L1/L2 acquisition and frequency of input. *Applied Psycholinguistics*, 22, 217–234.
- Waldvogel, D. A. (2014). An analysis of Spanish L2 lexical richness. *Academic Exchange Quarterly*, 18(2), 1-8.
- Walters, J. (2012). Aspects of validity of a test of productive vocabulary: Lex30. *Language Assessment Quarterly*, 9(2), 172–185. <http://doi.org/10.1080/15434303.2011.625579>
- Wang, P. (2017). A corpus-based study of English vocabulary in art research articles. *Journal of Arts and Humanities*, 6(8), 47–53.
- Wang, X. (2014). The relationship between lexical diversity and EFL writing proficiency. *University of Sydney Papers in TESOL*, 9, 65–88.
- Webb, S. (2005). Receptive and productive vocabulary learning: The effects of reading and writing on word knowledge. *Studies in Second Language*

- Acquisition*, 27(1), 33–52.
- Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second Language Acquisition*, 30(1), 79–95.
- Webb, S., & Nation, P. (2008). Evaluating the vocabulary load of written text. *TESOLANZ Journal*, 16, 1–10.
- Wesche, M., & Paribakht, T. S. (1996). Assessing second language vocabulary knowledge: Depth versus breadth. *The Canadian Modern Language Review*, 53(1), 13–40.
- West, M. (1953). *A General Service List of English Words: With Semantic Frequencies and Supplementary Word List for the Writing of Popular Science and Technology*. London: Longman.
- Wilkins, D. (1972). *Linguistics in Language Teaching*. London: Edward Arnold.
- Woken, M. (2005). Advantages of a pilot study. *UIS Centre for Teaching and Learning – One In A Series Of Research Paper Tips From The CTL*, 1(7), 6–12. Retrieved from <http://www.uis.edu/ctl/wp-content/uploads/sites/76/2013/03/ctlths7.pdf>
- Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC Journal*, 37(3), 308–328. <http://doi.org/10.1177/0033688206071315>
- Wu, S., Witten, I. H. & Franken, M. (2010). Utilizing lexical data from a web-derived corpus to expand productive collocation knowledge. *ReCALL*, 22(1), 83–102.
- Xue, G., & Nation, P. (1984). A University Word List. *Language Learning and Communication*, 3(2), 215–229.
- Yu, G. (2010). Lexical diversity in writing and speaking task performances. *Applied Linguistics*, 31(2), 236–259. <http://doi.org/10.1093/applin/amp024>
- Yuan, F., & Ellis, R. (2003). The effects of pre-task planning and on-line planning on fluency, complexity and accuracy in L2 monologic oral production. *Applied Linguistics*, 24(1), 1–27. <http://doi.org/10.1093/applin/24.1.1>
- Zaabalawi, R. S., & Gould, A. M. (2017). English collocations: A novel approach to teaching the language's last bastion. *Ampersand*, 4(2), 21–29. <http://doi.org/10.1016/j.amper.2017.03.002>
- Zainudin Awang. (2012). *Research Methodology and Data Analysis* (2nd ed.). Kuala Lumpur: UiTM Press.
- Zaliza Hanapi, & Mohd Safarin Nordin. (2014). Unemployment among Malaysia

graduates: Graduates' attributes, lecturers' competency and quality of education. *Procedia - Social and Behavioral Sciences*, 112(ICEEPSY 2013), 1056–1063. <http://doi.org/10.1016/j.sbspro.2014.01.1269>

Zechmeister, E. B., Chronis, A. M., Cull, W. L., D'Anna, C. A., & Healy, N. A. (1995). Growth of a functionally important lexicon. *Journal of Reading Behavior*, 27(2), 201–212. <http://doi.org/10.1080/10862969509547878>

Zeeland, H. Van, & Schmitt, N. (2013). Lexical coverage in L1 and L2 listening comprehension: The same or different from reading comprehension? *Applied Linguistics*, 34(4), 457–479. <http://doi.org/10.1093/applin/ams074>

Zhong, H. (2011). Learning a word: From receptive to productive vocabulary use. Proceedings of *the Asian Conference on Language Learning* (pp.116–126). Retrieved February 2017, from [https://papers.iafor.org/proceedings/conference-proceedings-the-inaugural-asian-conference-on-language-learning-2011/?sf\\_action=get\\_results&sf\\_s=Learning+a+word:+From+receptive+to+productive+vocabulary+use&\\_sft\\_proceedings\\_category=acll-official-conference-proceedings](https://papers.iafor.org/proceedings/conference-proceedings-the-inaugural-asian-conference-on-language-learning-2011/?sf_action=get_results&sf_s=Learning+a+word:+From+receptive+to+productive+vocabulary+use&_sft_proceedings_category=acll-official-conference-proceedings).