



UNIVERSITI PUTRA MALAYSIA

***ASSOCIATION AMONG VOCABULARY SIZE, ACADEMIC
ACHIEVEMENT, ENGLISH LANGUAGE PROFICIENCY, AND
LANGUAGE DOMINANCE***

ARIFUR RAHMAN

FBMK 2017 4



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LANGUAGE DOMINANCE**

By

ARIFUR RAHMAN

**Thesis Submitted to School of Graduate Studies, Universiti Putra Malaysia, in
Fulfillment of the Requirements for the Degree of Master of Arts**

April 2017

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DEDICATION

This research is dedicated to my parents and my beloved wife whose endeavor and encouragement provided me the strength to complete this research.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Arts

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By

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April 2017

Chairman : Associate Professor Yap Ngee Thai, PhD
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Vocabulary is acknowledged as a key to Second Language (L2) proficiency (Coady, 1997) and previous studies suggest that learners of English as a Second Language (ESL) need a vocabulary size of 9000-word families to comprehend academic texts at tertiary level (Nation, 2007). Earlier studies also showed that a significant positive correlation exists between learners' vocabulary size and academic achievement. In previous studies on ESL learners' vocabulary knowledge, different variables have been found to be related to bilingual learners' inadequate vocabulary size. As the 2nd year Malay ESL learners of the current study are bilinguals, it is hypothesized that their dual language profile can provide evidence of their language dominance, which may be related to their overall vocabulary size. Therefore, this study measured Malay ESL learners' vocabulary size and language dominance at tertiary level and the relationship between vocabulary size, academic achievement, language proficiency, and language dominance, and the extent to which variance in academic achievement can be explained by these factors. Ninety-six students from four undergraduate programmes offered at University Putra Malaysia were recruited using stratified sampling technique and their vocabulary size and language dominance were measured using two sets of questionnaires. The 20,000 Vocabulary Size Test (Version A) was used to measure receptive vocabulary size, and the Bilingual Language Profile (BLP) was used to measure language dominance. The learners' Cumulative Grade Point Average (CGPA) and the Malaysian University English Test (MUET) scores were obtained from their academic transcripts. Data were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis. The results show that 92% of the participants studied in the present study have a vocabulary size beyond 9,000 word families. A moderate and positive association was found between receptive vocabulary size and English language proficiency, language dominance and academic achievement. Receptive vocabulary size was found to be the only predictor of academic performance when compared with other variables such as language proficiency, and language dominance. The study shows that on average Malay ESL

learners at tertiary level have knowledge of about 11,268-word families of vocabulary. Although the result showed that vocabulary size, language proficiency, and language dominance have a significant association with academic achievement, vocabulary size is the only significant contributor to academic achievement, and it is predicted to contribute as much as 25% towards academic achievement. The findings indicate value in fostering frequent vocabulary testing at tertiary level in order to support learners with inadequate vocabulary sizes. The use of VST in this study proved to be useful for helping lecturers to determine the kind of attention they should pay to vocabulary for particular groups of learners. Moreover, the findings suggest that the VST maybe a reliable and cost-effective post enrolment screening tool of tertiary level learners in ESL settings. This understanding of Malay ESL tertiary learners' receptive vocabulary knowledge can help language planning and policy maker in designing appropriate syllabus, language courses, and offer operational strategies to enhance vocabulary knowledge so that the learners can do well in their tertiary level studies.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sastera

**ASOSIASI ANTARA SAIZ KOSA KATA, PENCAPAIAN AKADEMIK,
KECEKAPAN BAHASA INGGERIS, DAN KEDOMINANAN BAHASA**

Oleh

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April 2017

Pengerusi : Profesor Madya Yap Ngee Thai, PhD
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Kosa kata telah diterima sebagai penunjuk pada kecekapan Bahasa Kedua (L2) (Coady, 1997) dan kajian lepas mencadangkan bahawa pelajar bahasa Inggeris sebagai Bahasa Kedua (ESL) memerlukan saiz kosa kata sebanyak 9000- patah perkataan keluarga bagi memahami teks akademik pada peringkat tertiar (Nation, 2007). Kajian terdahulu juga menunjukkan bahawa terdapat korelasi positif yang signifikan antara saiz kosa kata dengan pencapaian akademik. Dalam kajian lepas ke atas pengetahuan kosa kata pelajar ESL, variabel yang berbeza didapati mempunyai kaitan dengan saiz kosa kata tak mencukupi pelajar dwibahasa. Disebabkan pelajar tahun kedua ESL kini ialah penutur dwibahasa, dapatlah dinyatakan hipotesis bahawa profil dwibahasa mereka dapat memberikan bukti mengenai kedominanan bahasa mereka yang mungkin berkaitan dengan keseluruhan saiz kosa kata mereka. Oleh sebab itu, kajian ini bertujuan untuk mengukur saiz kosa kata pelajar Melayu ESL pada peringkat tertiar dan memperlihatkan hubungan antara saiz kosa kata, pencapaian akademik, kecekapan bahasa, dan kedominanan bahasa, dan sejauh manakah varians dalam pencapaian akademik dapat diterangkan oleh faktor tersebut. Sebanyak sembilan puluh enam pelajar dari empat program prasiswazah di Universiti Putra Malaysia terlibat menggunakan teknik persampelan berstrata, dan saiz kosa kata dan kedominanan mereka telah diukur menggunakan dua set soal selidik. Ujian Saiz Kosa Kata 20,000 (Versi A) telah digunakan bagi mengukur saiz kosa kata reseptif, dan Profil Bahasa Dwibahasa (BLP) telah digunakan untuk mengukur kedominanan bahasa. Purata Nilai Gred Kumulatif pelajar (CGPA) dan skor MUET (Malaysian University English Test) telah diperolehi daripada transkrip akademik mereka. Data telah dianalisis menggunakan statistik deskriptif, analisis korelasi, dan analisis regresi berbilang. Dapatan kajian menunjukkan bahawa 92% responden yang dikaji dalam kajian ini mempunyai saiz kosa kata melampaui 9,000 patah perkataan keluarga. Asosiasi yang sederhana dan positif telah ditemui antara saiz kosa kata reseptif dan kecekapan bahasa Inggeris, kedominanan bahasa dan pencapaian akademik. Saiz kosa kata reseptif telah ditemui sebagai prediktor utama bagi prestasi akademik apabila dibandingkan dengan variabel lain, seperti kecekapan bahasa, dan kedominanan

bahasa.. Kajian ini menunjukkan bahawa secara purata pelajar Melayu ESL pada peringkat tertiar mempunyai pengetahuan lebih kurang 11,268- patah perkataan keluarga kosa kata. Walaupun dapatan menunjukkan bahawa saiz kosa kata, kecekapan bahasa dan kedominanan bahasa berasosiasi secara signifikan dengan pencapaian akademik, saiz kosa kata merupakan penyumbang utama bagi pencapaian akademik, dan ini dijangkakan menyumbang sebanyak 25% terhadap pencapaian akademik. Dapatan memperlihatkan nilai dalam penggalakan pengujian kosa kata yang kerap pada peringkat tertiar supaya ia dapat membantu pelajar yang mempunyai saiz kosa kata yang tidak mencukupi. Penggunaan VST dalam kajian ini didapati berguna bagi membantu pensyarah menentukan bentuk perhatian yang perlu diberikan pada kosa kata bagi kumpulan tertentu pelajar. Tambahan pula, dapatan kajian ini mencadangkan bahawa VST sebagai alat penyaringan pascaenrolmen yang kos efektif dan reliabel bagi peringkat tertiar pelajar dalam seting ESL. Pemahaman mengenai pengetahuan kosa kata reseptif pelajar tertiar ESL Melayu dapat membantu perancang bahasa, penggubal polisi dalam mereka bentuk silabus, kursus bahasa yang sesuai, dan menawarkan strategi operasional bagi meningkatkan pengetahuan kosa kata supaya pelajar berjaya dalam pengajian pada peringkat tertiar mereka.

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I certify that a Thesis Examination Committee has met on 20 April 2017 to conduct the final examination of Arifur Rahman on his thesis entitled "Association among Vocabulary Size, Academic Achievement, English Language Proficiency, and Language Dominance" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Arts.

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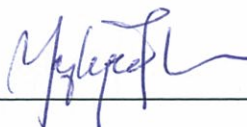
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LIST OF ABBREVIATIONS

VST	Vocabulary Size Test
VS	Vocabulary Size
BLP	Bilingual Language Profile
MUET	Malaysian University English Test
ESL	English as a Second Language
EFL	English as a Foreign Language
L1	First Language
L2	Second Language, Foreign Language
VLS	Vocabulary Level Tests
OPI	Oral Proficiency Interview
NART	National Adult Reading Test
VSPT	Vocabulary Size Placement Test
VL	Vocabulary Level Test
TYN	Timed Yes/No (TYN) test of vocabulary
MCT	Multiple Choice Test
ELP	English Language Proficiency

CHAPTER 1

INTRODUCTION

This chapter explains the background to the study and discusses the significance of vocabulary research. It offers a brief examination on the issue of language dominance in relation to vocabulary size, proficiency in English Language and achievement in academic performances. It also describes the significance of vocabulary knowledge and the measurement of vocabulary size and discusses the statement of the problem, which underpins the scope for the present study. Additionally, the chapter presents the objectives and the research questions for this investigation. Lastly, it provides an outline of the conceptual framework, research hypothesis and the organization of the thesis.

1.1 Background of the Study

Performing well academically at the tertiary level is important to the students as it plays a vital role in gaining a good job and expected salary as well as scholarship for postgraduate study within and outside of the country. A tertiary learner's English language proficiency can be the determinant factor for his/her academic achievement in a given context since most of the tertiary text books are written in English and correspondingly the medium of instruction is in English for some programmes. The English language proficiency of a learner is largely dominated by his knowledge of vocabulary, which enables him/her to convey ideas easily. Furthermore, achieving a good language proficiency requires different aspects of language skills for instance vocabulary, grammar and a favorable environment to practice the language. Although various aspects are involved in achieving good language proficiency, vocabulary knowledge is considered the major one.

Before 1980, grammar was a dominant study area of second language acquisition (SLA) research (Haastrup & Henriksen 2001; Meara 2002). However, research into vocabulary has become one of the main trends in linguistic work for a number of years (Meara, 1995; Milton, 2009; Schmitt, 1994). According to Hirsh (2012), "there has been a steady increase of interest in vocabulary research among graduate students in the last 20 years." Pulido and Hambrick (2008) states that significant research interest has been shown in describing and measuring vocabulary knowledge because it is an essential part of literacy skills.

Among different aspects of vocabulary research, the issue of measuring second language learners' knowledge of vocabulary by looking at students' vocabulary size has been a key issue in the field of research on vocabulary (see, e.g., Nation 2001; Webb 2008; Zimmerman 2004). Relevantly, researchers (Laufer and Nation 1995, 1999; Meara and Fitzpatrick 2000; Nation 1983) felt the urgency of developing a number of test instruments that can be used in measuring the size of receptive vocabulary as well as productive vocabulary size. The development of such

assessment tools has given rise to a series of studies measuring learners' vocabulary knowledge and learners' vocabulary growth in terms of size (e.g. Nurweni and Read, 1999; Zhong and Hirsh 2009). Receptive vocabulary knowledge also known as vocabulary size is essential for students to achieve adequate proficiency in the four language skills in order for them to cope with academic tasks at tertiary level. Receptive vocabulary knowledge implicates words that can be understood (received) while reading or listening (Nation, 2001, Alkhofi, 2015). The overall receptive vocabulary size plays a key role in increasing learners' overall vocabulary knowledge. At an initial stage, this receptive vocabulary is stocked in mental lexicon and later it is used productively depending upon various tasks completion in academic English. Therefore, Webb (2008) argues that vocabulary size is very crucial because a learner with a greater receptive vocabulary size perhaps knows more words productively than a learner who has a minimal stock of receptive vocabulary. Moreover, an adequate comprehension of an academic text requires 98% of the running words. Schmitt and Schmitt (2014) claim that for a Second Language (L2) learner to understand written texts (e.g. newspapers, novels) should have a vocabulary size ranging from 8000 to 9000 word family. Nation (2006), on the other hand, opines that L2 learners with a view to understand spoken texts like lectures and movies should have a vocabulary size between 6,000 and 7,000 word families.

However, the major obstacle facing learners of English as a Foreign Language (EFL) is the acquisition of a suitable vocabulary size that is adequate to deal with their academic needs (Nation, 2001). Similar studies (e.g. Nation, 2006; Mokhtar, 2010; Alkhofi, 2015; Hajiyeva, 2015) have been done in the context of ESL or EFL showing that after spending years of studying English language, students' vocabulary size is still below the 9,000 word-family level. Laufer and Ravenhorst-Kalovski (2010) also argue that this 98% threshold vocabulary size of 8000 word families is way beyond the expected vocabulary size of a university student to comprehend text. Furthermore, Beglar & Hunt (1999), Laufer, (1992) and Qian (1999) have reported that receptive vocabulary knowledge has been closely connected to texts comprehension whereas, Astika (1993), Laufer (1998) and Stæhr (2008) found it useful in different writing situations. Receptive vocabulary knowledge also plays an important role both in comprehending what speakers say while listening to speech (Milton, Wade, & Hopkins, 2010; Stæhr, 2008; Zimmerman, 2004), and also to speak (Milton et al., 2010; Zimmerman, 2004).

Therefore, it may be argued that a wide range of vocabulary is associated with better performance in language skills. Conversely, a smaller amount of word knowledge is associated with low performance. Learners' vocabulary knowledge and overall competency in second or foreign language have been studied by several researchers and they looked at the correlation between them (Stæhr, 2008; Milton & Treffers-Daller, 2013) and it was shown that vocabulary knowledge is equally important for both reading comprehension and communication skills. In accordance with the great concern of measuring learners' vocabulary size, Saville-Troike (1984) and Laufer (1997) state that since the vocabulary size is identified with achievement in reading, written work, and general language ability alongside scholarly achievement, these size tests can provide compelling direction in vocabulary instruction system. In addition, vocabulary measurement results can give important data to the instructors, learners,

and evaluation bodies. A proper measurement of vocabulary size also can facilitate teachers to develop language courses, instructional procedures, and assessment tools. Therefore, a measurement of learners' vocabulary size is essential in a L2 learning context (Schmitt, Cobb, Horst, & Schmitt, 2015).

Malaysia has placed English as a second language in the country's education (Gill, 2002) and English language is taught from early school years until higher education i. e. tertiary level. Therefore, the government administers a bilingual education system of English alongside native languages (Darmi and Albion, 2013) and the learners are commonly bilingual or multilingual. A large and growing body of literature has reported low proficiency in English language among Malaysian ESL learners even after 11 years of English learning in school (Kaur, 2006; Sarudin et al. 2008). As a result, both political leaders and educators in Malaysia frequently address the importance of being proficient in English language. In his 2015 budget speech, Dato' Sri Najib Razak -The Prime Minister of Malaysia claims that proficiency in English language plays the key role of promoting human capital and entrepreneurship in the country (Thirusanku and Yunus, 2014). A positive relationship also has been found between English language proficiency and employability in Malaysia (Hamzah, 2014). Besides, English language proficiency test, known as Malaysian University English Test (MUET) is a prerequisite for admission into both government and private institutions of higher education (Borneo Post, 2014; Higher Education Ministry Survey, 2008 as cited in Azizan & Mun, 2011). Therefore, it is evident that pre-university students' English language proficiency plays a vital role to get admission into universities in Malaysia and helps existing university students to achieve better academic achievement.

The importance of proficiency in English is further emphasized during undergraduate studies since students have to pass English as a second language (ESL) courses before graduation and ESL grades are included in learners' cumulative grade point average (CGPA). Consequently, a low grade in English language usually affect the semester results as well. Besides, scientific and mathematical courses at tertiary level are taught in English language. Thus, undergraduate students with low proficiency in English language usually struggle to understand the lecturers' speech in the class. Students also face problems to comprehend texts written in English language while reading and writing assignments. Zahidi (2012) argues that this poor language proficiency affects their performances in tests and later in getting jobs. Even though word knowledge is fundamental to learning a language, Asgari and Mustapha (2011) argue that Malaysian tertiary students' English vocabulary knowledge is limited and this leads to a poor performance in English language proficiency test. Thus, students with inadequate vocabulary size usually fail to comprehend academic texts that eventually affects their academic performance. Furthermore, if the tertiary students do not possess good English language proficiency, their academic performance can be hampered since English is the medium of instruction for most of the programmes at the tertiary level. Sodbir (2012), Azizan and Mun, (2011) state that a number of steps have been taken in order to develop the overall proficiency in using English as a second language among Malaysian learners whose proficiency in general seems to be waning. Therefore, the causes of the poor performance in English language have been widely investigated (Musa, Lie & Azman, 2012; Pandian, 2002; Jalaluddin, Awal, & Bakar,

2008). It was found that the over use of L1 (mostly Bahasa Malaysia), negative attitudes towards English, lack of L2 practice are the main barriers to learning English as second language.

It is a common practice that Malaysian bilinguals usually acquire and use one language at home (Malay) but they depend on English language for education and succeeding employment. Even among the early Malay-bilinguals who learn Malay language and English language concurrently in their earlier age, one language is mostly dominant and this type of language history is prevalent in some Asian countries (Lim et al, 2008). Lim et al. (2008) further affirm that a bilingual's Age of First Exposure (AoE) to a particular language, duration of formal education, and the number of years of language experience influence his/her mastery in that language. Recognizing language dominance in a multilingual community like Malaysia is often considered a complex task. Moreover, bilingual learners' language learning is influenced by the AOE, chances to use each language, circumstances of learning, the social value of the languages, and education (Malarz, 1998; Sandhofer & Uchikoshi, 2013). Therefore, it is suggested that while examining the vocabulary size of bilingual language learners, several factors should be taken into consideration such as the language of the learner's school experience, and the quality and amount of the student's exposure to both languages. The above-mentioned studies provided evidence of the role of the dimension of language background, use, attitudes, proficiency, and language dominance on bilingual's language learning. However, little is known about the influence of these dimensions on Malaysian ESL learners' L2 learning at tertiary level. These findings prompted the researcher to undertake an in-depth quantitative study to explore the personal and contextual factors of language use, attitudes, proficiency, and language dominance that might act as facilitators of or constraints on the Malay-English bilingual's vocabulary acquisition.

1.1 Statement of the Problem

English is taught in Malaysia as a second language although the national language has a dominant role to play. When it comes to learning English as a second language, vocabulary is considered as one of the key criteria in the success of second language proficiency in English (Coady, 1997). In his study, Stæhr (2008) found a very high positive relationship between vocabulary size and the components of listening, reading, and writing skills. Hu and Deng (2007) opine that vocabulary is the basis of linguistic abilities. At tertiary level education, learners face many problems in understanding texts because of the complex nature of texts, unknown words, technical terms, jargons, etc. Malaysian learners also face the same situation when they enroll at tertiary level. They face difficulties when they have inadequate vocabulary knowledge. Most of the course books are written in English and learners who are not so proficient in English language face greater difficulties in understanding the texts. Hence, Gill (2007) rightfully claimed that this is because when academic writing turn out to be more conceptually difficult, and there is least support linguistically due to poor proficiency, then this difficulty is aggravated. Language users at many universities are expected to cope with the increasing number of new English vocabulary in their academic fields since English is the language of communication there (Mathai Jamian, & Nair, 2004). They find the texts challenging, as they are

complex in themes and concepts than the school texts. Moreover, tertiary learners with limited vocabulary find it challenging to grasp longer sentences especially when sentences have difficult words in them (Muhammad, 2007; Nambiar, 2007; Hasan, 2008). Hence, vocabulary plays a significant role in academic reading especially understanding texts in the given subject area. If the knowledge of vocabulary is inadequate in any subject, it affects the learner's performances (Ismail, 2008). Since vocabulary is a vital element of every language, estimating vocabulary size has been of great interest to researchers. An adequate vocabulary size is a prerequisite to learners' academic success, and therefore, learners' overall performance is usually associated with their vocabulary knowledge. Nation (2006) is of the view that "If learners of English as a second or foreign language wish to read complex authentic texts without unknown vocabulary being a problem, they should have a vocabulary of between 8,000 and 9,000-word families (p.79)." As a result, there is a need to conduct a measurement of vocabulary size.

Another concerning issue is the interpretation of this vocabulary size figure. Tertiary ESL learners' knowledge on vocabulary is reflected through their language proficiency in reading, listening, speaking and writing. Most of the past studies tried to find out the relationship between vocabulary size and reading comprehension or overall language proficiency with an exception of studies undertaken by Milton and Treffers-Daller (2013) and Harrington & Roche (2014) where the vocabulary size and learners' overall Cumulative Grade Point Average (CGPA) have measured and they found a significant relationship between vocabulary size and CGPA. Hence, Lemmouh (2008) argues that learners' academic performance standards can be monitored and analyzed by constant vocabulary size assessments and the investigation of the direct relationship between tertiary learners' receptive vocabulary size and academic achievement can provide valuable information regarding the extent of which vocabulary size contributes towards academic achievement. The concern of English language proficiency and academic achievement in tertiary students has been debated in Malaysia over a number of years. In the past few years, there has been worldwide acknowledgement of the challenges faced by students to increase their CGPA at tertiary level. The main challenge faced by many researchers is to find out the most influential features relating to academic achievement. A number of studies have found a significant positive link between L2 proficiency and academic achievement. However, this concept has recently been challenged by many studies demonstrating that English language proficiency only contribute less than 10% of academic achievement (Kerstjens & Nery, 2000) whereas, other factors such as vocabulary knowledge can contribute between 33% and 96% in the overall academic achievement (Daller & Phelan, 2013; Roche & Harrington, 2013;Saville-Troike, 1984; Daller & Xue, 2009; Harrington & Roche, 2014a, 2014b; Morris and Cobb, 2004). Up to now, the research has not replicated the associations between vocabulary size and academic achievement in Malaysia. The study by Yixin and Daller (2014) offers probably the most comprehensive empirical analysis indicating that 28% of students' academic performance can be anticipated through a measure of lexical richness. Daller and Phelan's (2013) study demonstrated the same outcomes. Applying a combination of various assessments, they found that students' mastery to deal with vocabulary correctly appears to be one of the strongest anticipator of academic success. As a result, they argue that vocabulary knowledge is one of the fundamental elements that accounts for the entire final grades that the students achieve (Daller & Phelan, 2013).

Therefore, the present study seeks to determine the relationship between vocabulary size and CGPA in the Malaysian context as the issue has not been addressed previously. Hence, it is deemed important to know the relationship among vocabulary knowledge, language proficiency and academic achievement and /or CGPA. According to Laufer, Elder, and Congdon, (2004), vocabulary size on a single modality (such as 'passive recognition') may suffice as a surrogate measure of overall proficiency or as a predictor of academic performance, since a score on one modality, is likely to correlate highly with a score of any of the others' (p. 224).

The significance of English language proficiency in the educational settings has directed the Malaysian universities to include English language proficiency as prerequisites into admissions and placement in different academic programmes. It has been conclusively shown in the previous studies that tertiary students require a definite level of English language proficiency to handle the linguistic loads of their respective courses of education (Buniyamin, Kassim, and, Mat, 2015; Othman and Nordin, 2013; Ponniah & Tay, 1992; Nopiah et al., 2011). There is no doubt of the importance of English language proficiency at tertiary level where the medium of instruction is in English for instance in Malaysia. Hence, the then Prime Minister of Malaysia, Dato' Sri Mohd. Najib bin Tun Abdul Razak during his speech about the 2015 Budget discussed the challenges and strategies for facilitating and promoting Graduates Employability and declared that beginning from 2015 onward, the minimum English proficiency prerequisite for government higher education admission would be made in line with requirements of the particular programme of study. Therefore, the requirement of Science, Technology, Engineering, and Mathematics (STEM) were increased from MUET Band 1 to MUET Band 3 and for Arts and Social Science programmes were Band 2, and Medical and Law programmes admission is Band 4 (Bernama, 2014a; Bernama, 2014b). When this new criterion was announced, there were fears that local and public universities may face a reduction in the number of students enrolling in various degree courses. The vice-chancellor of University Utara Malaysia (UUM) for example stated that only 30% of their students were in Bands 3,4,5 and the other 70% were in Bands 1 and 2 (Bernama, 2014b). Based on these figures, public universities may lose potential engineering students when the new criteria was implemented. However, a great deal of studies postulate that variables other than language proficiency are likely to contribute more to success at the university. A further study by Kerstjens and Nery (2000) determined that smaller than 10% of academic achievement might be ascribed to English proficiency as determined by the IELTS result. As stated by Ingram and Bayliss (2007), it is "impossible to account for all the variables" (p5) and language proficiency is only a supplementary variable. O'Loughlin and Arkoudis (2009) characterized these additional variables as "enabling conditions" and cited "agency", "language socialization", "language support", and "interaction with other English language speakers" beyond university classes. As a result, questions have been raised about the recent increase of MUET Band for admission into higher education in Malaysia. Moreover, previously published studies (Nopial et al., 2011; Addow, Abubakar, and Abukar, 2013; Aina and Olanipekun, 2013) on the association between English language proficiency and academic achievement were not consistent. Thus, the current study aimed to assess the extent to which English language proficiency associate with different programmes (eg. Arts, Commerce, Engineering).

In previous studies on ESL learners' language learning, different variables have been found to be related to bilinguals' inadequate vocabulary size such as, limited English environment, (Mokhtar et al., 2010). Moreover, Mathai et al. (2004) pointed out a number of causes, for instance, students are not ardent to learn English, not attentive to reading, not self-reliant to speak the language, and they are mostly reliant on instructors' clarifications. As the 2nd year Malay ESL learners of the current study are bilinguals, it is hypothesized that their dual language profile can provide evidence of their language dominance, which is thought to be related to their overall vocabulary size. Knowing Malay bilingual students' profile of dual language history, use, proficiency, and attitude towards their L1 and L2 and the degree of their dominance may offer some important clues for their existing vocabulary size. The rationale for determining language dominance in Malaysian context is that this issue has become an important area of research in other countries (e.g. Singapore, USA) where language users are of diverse language background and settings. Recent evidence suggests that bilinguals' age of first exposure to a particular language, number of years of language experience, duration of formal education, language of the learner's school experience quality and the amount of the student's exposure to both languages significantly influence their language leaning (Lim et al., 2008; Malarz, 1998; Gathercole & Thomas, 2009). A bilingual language profile concerning tertiary learners' language history, use, attitude, and proficiency in this case seems relevant to search for a ground for checking their existing vocabulary knowledge. Thus, a documentation on Bilingual Language Profile will be done at the same time when their receptive vocabulary knowledge will be measured.

Additionally, very few studies have been found in Malaysia, which examined the relationship between vocabulary size at the level of 20,000 word family and academic achievement, nor that of language dominance and vocabulary size or English language proficiency. Because of this gap in the literature, the present study aspires to measure Malay 2nd year university ESL learners' vocabulary size and language dominance along with the relationship between vocabulary size, CGPA, MUET, and language dominance. In line with the earlier mentioned scopes for the research, it is relevant to see the best contributor of academic achievement in relation to vocabulary size, language proficiency, and language dominance.

1.2 Objectives of the Study

This study attempts to measure Malay 2nd year university learners' vocabulary size at tertiary level and seeks to determine the relationship between Malay tertiary learners' vocabulary size in English and academic achievement, vocabulary size and English language proficiency, and English language proficiency and academic achievement. It also seeks to determine language dominance among bilingual (Malay-English) learners and the relationship between vocabulary size and language dominance. Finally, the study will examine the extent to which variance in academic achievement can be explained by vocabulary size, English language proficiency, and language dominance of Malaysian ESL learners at tertiary level.

1.3 Research Questions

1. What is the vocabulary size of Malay ESL learners at tertiary level?
2. What is the correlation between vocabulary size and academic achievement of Malay ESL learners at tertiary level?
3. What is the relationship between vocabulary size and English language proficiency of Malay ESL learners at tertiary level?
4. What is the relationship between English language proficiency and CGPA of Malay ESL learners at tertiary level?
5. What is the bilingual language profile and language dominance score of bilingual (Malay-English) tertiary learners?
6. What is the relationship between vocabulary size and language dominance of Malay ESL learners?
7. How much of the variance in academic achievement can be explained by vocabulary size, English language proficiency, and language dominance of Malay ESL learners at tertiary level?

1.4 Conceptual Framework

The conceptual framework is shown in this section. The relationship between main underlying concepts of this research is presented in figure 1.

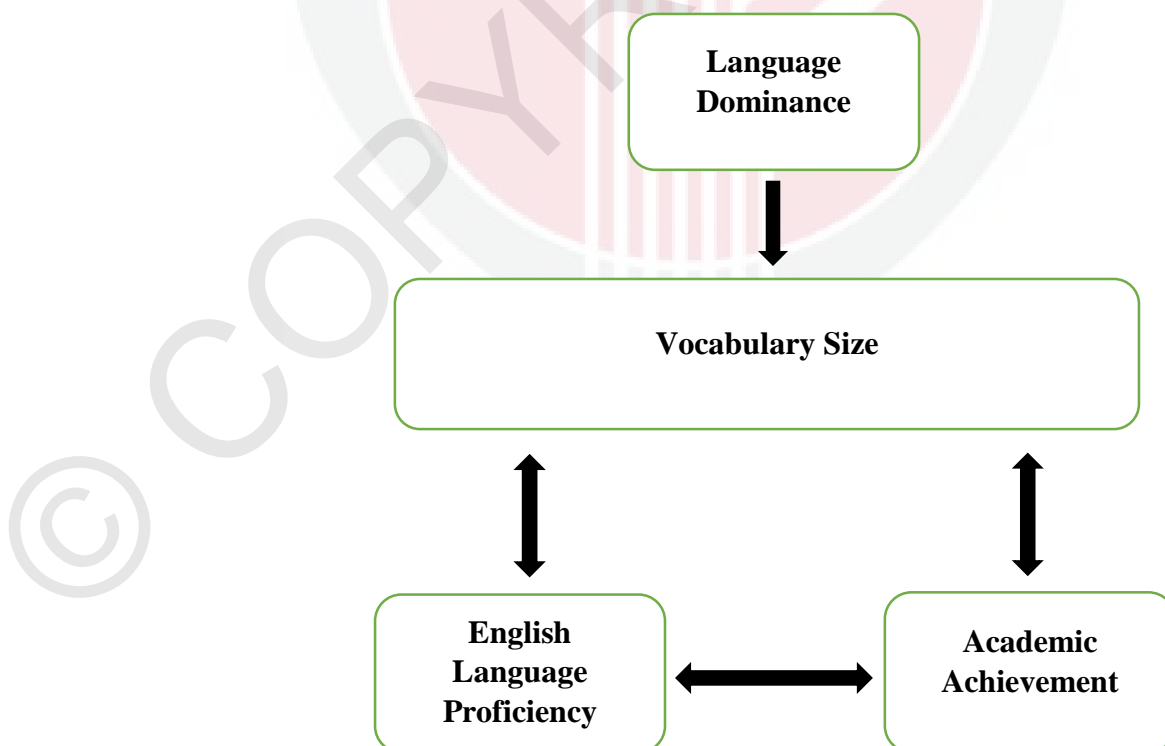


Figure 1. A Hypothesized Relationship between Vocabulary Size and Learners' Academic Achievement

To begin with the description of the framework, it is observed that the relationship between vocabulary knowledge and language dominance is unidirectional suggesting that the components of language dominance namely, language history, language use, language attitude, language proficiency facilitate the increase in students' vocabulary size. Sandhofer, et al. (2013), therefore, suggest that in examining the vocabulary size of bilingual language learners, several factors must be taken into consideration such as the language of the learner's school experience, and the quality and amount of the student's exposure to both languages. Thus, bilingual students' language learning is influenced by the age of first exposure, chances to use each language, circumstances of learning, the social value of the languages, and education (Malarz, 1998; Lim et al., 2008). Therefore, students' language dominance score is regarded as the dependent variable whereas, vocabulary size as dependent. Vocabulary knowledge and language proficiency is mutually related showing the relationship as bidirectional that is, if one increases the other one also increases and vice versa. In this hypothesized relationship, English language proficiency becomes dependent variable whereas, vocabulary size as independent since, and students' overall English language proficiency is mostly associated with their average vocabulary size. Moreover, the relationship between vocabulary size and academic achievement, vocabulary size and English Language proficiency, and the relationship between English language proficiency and academic achievement are also bidirectional. As stated by Milton (2008), Laufer et al (2004), Stæhr (2008), Milton et al (2010), and Schoonen (2010), receptive vocabulary knowledge is positively associated with English language proficiency as well as overall academic achievement. Furthermore, students' English language proficiency and their academic achievement are closely connected which is by far suggested by many studies (Buniyamin et al., 2015; Othman and Nordin, 2013; Ponniah & Tay, 1992; Nopiah et al., 2011).

1.5 Research Hypothesis

Based on the previous studies and current conceptual framework, the subsequent Null Hypotheses are proposed for testing.

- Ho1:*** There is no significant relationship between Malay ESL learners' receptive vocabulary size and academic achievement.
- Ho2:*** There is no significant relationship between receptive vocabulary size and learners' English language proficiency.
- Ho3:*** There is no significant relationship between learners' English language proficiency and their CGPA.
- Ho4:*** There is no significant relationship between vocabulary size and language dominance scores.
- Ho5:*** The receptive vocabulary size, English language proficiency, and language dominance do not predict academic performance of Malay ESL learners.

1.6 Operational Definitions

Vocabulary size

Vocabulary size refers to the approximate number of words an individual knows in a given language. Many researchers have attempted to define the term “vocabulary size” in different ways. This study uses the definition suggested by Nation (2000) who saw it as the ability of perceiving the form of a word while listening or reading and retrieving its meaning. Therefore, the receptive vocabulary size test used in the present study measures three major aspects of their vocabulary knowledge: list of passive vocabulary, knowledge of various word forms and their ability of using appropriate word form by linking it to the relevant meaning in context. For instance, the word see “see.” A learner needs to understand: They <saw it>. In fine, vocabulary size refers to the words, their forms, and meaning in a given situation that any language user must know for sure.

Language proficiency

Throughout this dissertation, the phrase “language proficiency” will refer to MUET band score of Malay Tertiary learners. The Malaysian University English Test (MUET) is used as a standard in determining learner’s proficiency in English language for admission into public universities in Malaysia (Othman and Nordin, 2013). The MUET syllabus, as stated by the Malaysian Examination Council (1999), “seeks to consolidate the English language ability of pre-university learners to enable them to perform effectively in their academic pursuits at tertiary level, in line with the aspirations of the National Education Philosophy” (p. 11). Furthermore, the MUET is used as a token of their English Language Proficiency in all four skills: listening, speaking, reading, and writing. The measurement of proficiency in MUET lies in a language user’s ability of using English in the four skills: listening, speaking, reading, and writing. In this study, MUET band score is regarded as the English proficiency level of the participants.

Academic achievement

Academic achievement refers to an individual’s intellectual capacity in academic fields in general. In academia, it is wide-ranging in its coverage of educational outcomes. For instance, educational degrees, CGPA, and certificates through which the academic achievement is reflected. It may also indicate the acquired knowledge or understanding of any intellectual construct e.g. literacy, language aptitude, science, etc. It depends on what indicators are used to measure it. In tests, the performances in terms of achieved grades, certificates, etc. are treated as academic achievements. In universities, the CGPA is counted as academic achievement.

In this dissertation, academic achievement is referred to as Cumulative Grade point Average (CGPA) of 2nd year Malay tertiary ESL learners. There are eleven distinct levels in terms of the categorization of undergraduate grading assessment or system in

UPM. For instance, 4.0- A, 3.7 A-, 3.3, B+, 3.0 B, 2.7 B-, 2.3 C+, 2.0 C, 1.7 C-, 1.3 D+, 1.0 D, 0.0 F. The calculation of cumulative grade point average entails several steps:

At first, the earned total quality points is multiplied by the number of grade points awarded for each course by the course's assigned number of semester credit hours. Next, quality points earned for each course is added to the resulting points. Finally, the total quality points earned in the term is divided by the number of semester credit hours attempted (for letter grades) in the term.

Language dominance

Birdsong et al. (2012) suggest that language dominance comprises of many dimensions of language use and experience, such as proficiency, fluency, ease of processing, frequency of use, or cultural identification. Thus, the study uses Bilingual Language Profile (BLP) questionnaires following the original model of Birdsong et al., (2012) with a view to find this Malay-English learners' language dominance.

The Bilingual Language Profile (BLP) measures language dominance reflecting through the reports made by the test-takers showing a gradually developed score of dominance in terms of age of acquiring both L1 and L2, number and situational usage, ability of using language in various skills, and their attitude towards each language in general.

Word family

According to Nation (2000), "A word family consists of a headword, its inflected forms, and its closely related derived forms." Furthermore, a word family includes the base form of a word and/or any word that can be derived from that base form excluding compounding of morphemes. For example, a word family for the word develop would include develop (verb), develops (verb), developed (verb and adjective), developing (verb and adjective), developable (adjective), undevelopable (adjective), developments (noun), developmentally (adverb), development wise (adjective and adverb), semi-developed (adjective), antidevelopment (noun and adjective), redevelop (verb), predevelopment (noun or adjective), and many others (Bauer & Nation, 1993). In this study, Nation' (2006) BNC/COCA (British National Corpus/ Corpus of Contemporary American English) word family list is used as the unit of counting in the vocabulary size test.

1.7 Organization of Thesis

This thesis is organized into five chapters. Chapter 1 first presents the background to the study, bringing together the aspects that form the grounds of the research questions. It also discusses the research problem underpinning the rationale for conducting the study. The chapter concludes with the conceptual framework, operational definitions and organization of the dissertation. Next, Chapter 2 elaborates on the relevant literature regarding vocabulary knowledge, word family and text coverage. Given the role of vocabulary in acquiring language proficiency, the chapter discusses research and studies providing evidence that receptive vocabulary size correlates positively to academic achievement. Because of this relationship, the chapter continues to analyze many studies measuring vocabulary size and the instruments of measurement used therein. Furthermore, it provides a clear insight into the importance of measuring language dominance and its influence on vocabulary size. The chapter ends with a review of the few empirical studies conducted that have measured the language dominance and provides the rationale for choosing BLP as a measure of language dominance for the present study. Chapter 3 is on methodology and study design that is on quantitative method. At first, it states the necessity of ethical consideration to carry out the present research and the location of the study. Then it also focuses on the description of the participants, sampling procedure and the instruments employed to collect data and the type of data analysis methods, which involved descriptive, correlational and multiple regression. Finally, it concludes with the results of the pilot study. Chapter 4 reports on the findings of the data analysis, and then interprets these findings in the light of relevant literature. Finally, Chapter 5 synthesizes the findings and offers suggestions for policy, pedagogy, and provision of educational services that can support better learning outcomes of Malaysian ESL learners. Lastly, recommendations are offered for interventions in the educational practice of the learners and prospective research endeavors.

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