EFFECTS OF MORPHOLOGICAL ANALYSIS AND USE OF CONTEXTUAL CLUES ON VOCABULARY ACQUISITION AMONG ESL UNIVERSITY LEARNERS

By

NORAZHA PAIMAN

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

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وَمِن ءايَٰتِهِۦ خَلۡقُ ٱلسَّمَٰوَٰتِ وَٱلۡأَرۡضِ
وَٱخۡتِلَٰفُ أَلۡسِنَتِكُمۡ وَأَلۡوَٰنِكُمۡۚ

And among His Signs
is the creation of
the heavens and the earth
and the variations in
your languages and your colours

(Ar-Rum: 22)

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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October 2014

Chair : Associate Professor Yap Ngee Thai, PhD
Faculty : Modern Language and Communication

A plethora of researches carried out in t past have unders red t utmost gravity of vocabulary learning in r lation to vocabulary literacy and reading compet nce among ESL learners. Many researchers in t estern countries have identifi d m rp l gi al analysis as a successful vocabulary learning strat gy in enhancing learners' vocabulary devel pment as well as enriching their vocabulary bank. Du t t lion's shar f Englis roots and word parts whi ar from t ancestral Indo-Eur pean languages f Latin and Greek, Old English, Middl Englis and French, this resear strives t find out t eff cts of morp ological analyses as well as t us of contextual clues on Malaysian ESL undergraduates' vocabulary devel pment.

T study adopted a quasi-experimental resear that us d pr -t st-p st-t st d sign wit thr intact groups of ESL learners onsisting of sixty students. Using 10 r ading texts throughout t tr atment period, t learners w r taught vocabulary differently wit Experimental Group 1 being given input on Graeco-Latin morphologi al analysis w il Experimental Group 2 received input on g neral morphol gical analysis. T Experimental Group 3, on t other hand, was taught word l arning strat gy by using contextual clues, a way f deriving word meaning from contexts. T participants wer given a 5-week treatment wher t classes ran biw ekly and lasted for tw hours each. T participants in t thr groups sat for thr different vocabulary m asures in t pre-test bef r t five-week intervention took place. Aft r completing t five-w ek treatment, t thr identical vocabulary measures wer conducted in t post-test t find out t ff cts of morphologi al analysis and contextual clueson learners' vocabulary acquisition.

Based on t results, the Experimental Group 1 s ored significantly hig er in all thr vocabulary m asures than t t r tw gr ups. In additi n, pair d-sampl s t-t sts r p rt a signifi ant increas of scores in t Graeco-Latin ord Part and Vocabulary Test (GL PVT), t General ord Part Levels Test (G PLT), and t V abulary Siz

Test 1400 (VST 1-14K) for Experimental Group 1 and a slight increase for Experimental Group 2. However, there is no significant increase at all for Experimental Group 3 in all three vocabulary measures.

The findings show that students who were taught a Graeco-Latin morphological analysis scored the highest in all three vocabulary tests as compared to the other two groups. Also, students who received a general morphological analysis showed an improvement in the test scores marginally. This indicates that students who were given a treatment on morphological analysis (both Graeco-Latin and General) would perform better in vocabulary tests as compared to those in Experimental Group 3 who were given an instruction on contextual guessing technique. The results of this study indicate a route for future research in using morphological analysis as a vocabulary learning strategy in ESL classrooms.

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

KESAN ANALISIS MORFOLOGI DAN PETUNJUK KONTEKS TERHADAP PENCAPAIAN PERBENDAHARAAN KATA DIKALANGAN PELAJAR-PELAJAR ESL UNIVERSITI

Oleh

NORAZHA PAIMAN

Oktober 2014

Pengerusi : Profesor Madya Yap Ngee Thai, PhD
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Kebanyakan kajian yang dijalankan pada masa lepas banyak memberi tumpuan khusus ke arah memperkayakan perbendaharaan kata yang berhubungkait dengan kemahiran membaca dan penguasaan penggunaan perbendaharaan kata di kalangan pelajar-pelajar ESL. Walaubagaimanapun, kajian yang dilakukan oleh Barat telah menemui satu kaedah yang berkesan dalam pembelajaran penggunaan perbendaharaan kata iaitu melalui kaedah analisis morfologi bagi meningkatkan mutu penguasaan dan memperkayakan perbendaharaan kata. Disebabkan sebahagian besar perbendaharaan kata Bahasa Inggeris berasal dari kata dasar Bahasa Latin, Bahasa Yunani, Bahasa Inggeris kuno dan pertengahan, dan Bahasa Perancis yang merupakan Bahasa Indo-Eropah kuno, kajian ini dijalankan bertujuan mengkaji kesan analisis morfologi dan penggunaan petunjuk konteks terhadap penguasaan perbendaharaan kata di kalangan pelajar peringkat pra-siswazah ESL di Malaysia.

Kajian ini mengadaptasi reka bentuk kajian kuasi eksperimen yang menggunakan pra-ujian dan pasca-ujian yang dilakukan ke atas tiga kumpulan pelajar-pelajar ESL melibatkan 60 orang pelajar kesemuanya. Menggunakan 10 teks bacaan sepanjang tempoh kajian, para pelajar telah diajar tentang penguasaan perbendaharaan kata secara berbeza mengikut kumpulan. Kumpulan Eksperimen 1 diajar dengan pendedahan analisis morfologi Latin-Yunani, manakala Kumpulan Eksperimen 2 didedahkan dengan analisis morfologi umum. Kumpulan Eksperimen 3 pula diajar mengikut kaedah petunjuk konteks iaitu kaedah meneka maksud perkataan melalui pemahamam konteks. Para pelajar diberikan pendedahan selama lima minggu di mana pembelajaran dijalankan dua kali seminggu dimana kelas berlangsung selama dua jam. Sebelum sesi pembelajaran dijalankan, para pelajar dari ketiga-tiga kumpulan diwajibkan menduduki tiga ujian perbendaraan yang berbeza diperingkat pra-ujian sebelum tempoh rawatan lima minggu diberikan. Selepas tempoh rawatan selama 5 minggu diberikan, tiga ujian perbendaraan yang yang sama dijalankan diperingkat pasca-ujian bagi mendapat keputusan kajian kesan analisis morfologi dan petunjuk konteks keatas penguasaan perbendaharaan kata pelajar-pelajar ESL.

Berdasarkan analisis yang dijalankan, keputusan menunjukkan bahawa Kumpulan Eksperimen 1 mencapai markah tertinggi dalam ketiga-tiga ujian perbendaharaan kata berbanding dengan 2 kumpulan yang lain. Walaupun ujian sampel-T menunjukkan peningkatan dalam ujian "Graeco-Latin Word Part & Vocabulary Test (GLWPVT)", "General Word Part Levels Test (GWPLT)", dan "Vocabulary Size Test 1400 (VST 1-14K)" bagi Kumpulan Eksperimen1 dan 2, akan tetapi tiada peningkatan yang ditunjukkan oleh Kumpulan Eksperimen 3 dalam kesemua tiga ujian perbendaharaan kata yang dijalankan.

Dapatan kajian menunjukkan para pelajar yang didedahkan dengan analisis morfologi Latin-Yunani mencapai markah tertinggi dalam kesemua ujian perbendaharaan kata yang dijalankan berbanding dengan 2 kumpulan yang lain. Selain itu, pelajar-pelajar dari kumpulan yang didedahkan dengan analisis morfologi umum juga menunjukkan peningkatan yang sedikit dalam pasca-ujian yang dijalankan. Kesimpulan dari kajian ini jelas menunjukkan bahawa pelajar yang diberikan pendedahan kepada analisis morfologi akan mempamerkan prestasi yang memberangsangkan dalam ujian perbendaharaan kata berbanding dengan pelajar-pelajar yang didedahkan dengan kaedah pembelajaran berdasarkan petunjuk konteks. Hasil dari kajian ini diharapkan akan mencetus idea baru untuk kajian mendatang dalam mengaplikasikan kaedah analisis morfologi dalam pembelajaran penguasaan perbendaharaan kata di Malaysia.

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"When sadness was the sea,
you were the one that
taught me to swim"
—Iain S. Thomas

I certify t at a T sis Examinati n C mmitt as m t n 8 O t ber 2014 t nduct t final xaminati n f Norazha Paiman n is t sis ntitl d "Eff ts of Morp logi al Analysis and Us f Cont xtual Clu s n V abulary A quisiti n Am ng ESL Univ rsity Learners" in a ordance wit t Universiti s and University C lleg s A t 1971 and t C nstituti n f t Universiti Putra Malaysia [P. U. (A) 106] 15 Mar 1998. T C mmitt r mm nds t at t student b awarded t degr f Mast r f Arts.

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Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: _____	Signature: _____
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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

"In fact, eloquence in English will inevitably make use of the Latin element in our vocabulary."

—Robert Stuart Fitzgerald,
American Poet

"The shortest and best way of learning a language is to know the roots of it; that is, those original primitive words of which other words are formed."

—Lord Chesterfield,
British Statesman

Vocabulary has proven to play a significantly pivotal role in improving learners' spoken communication throughout the history of second language research (Hudson, 2007). Vocabulary is also deemed as one of the core characteristics in the success of second language mastery. Lehr, Osborn, and Hiebert (2004) define vocabulary as "knowledge of words and word meanings in both oral and print language and in productive and receptive forms (p. 2)". In simple terms, vocabulary can be construed as the lubricant of language which allows smooth flow of our speech and reading fluency. It is also known as the building block of thought. It is the conduit used to convey messages and channel the ideas of others as well as ours. Second language learners who possess huge vocabulary in their mental lexicon will be able to know how to use the words epigrammatically and grammatically.

Learners' repertoire of vocabulary plays a pivotal role in language learning and acquisition. The number of words the learners know determines their linguistic competence in a target language. Kamps (2010) states that the more words the learners are familiar with, the more proficient they will be at the use of their target language. A person who knows more words can speak fantastically fluent and think critically about the world around them. Indeed, the world is demarcated by words; the more words we possess, the more complex ways we can think about the world (Stahl & Nagy, 2006).

In order to be able to read and speak fluently in a second language, learners need approximately half of the words they have in their first language which is approximately 25, 000 words (Kamps, 2010). If second language learners have a limited range of vocabulary, the process of gaining mastery in L2 will be onerous in all aspects. This is because the success of becoming proficient users of L2 is very much related to the amounts of vocabulary that L2 learners have the mastery over. The more words they know, the more fluent they will be in both speaking and reading literacy. Building learners' vocabulary repertoire is not easy: learners need to be trained to be word-conscious, not only about the semantic aspect but also about the word history and origins. By so doing, they will not waste time and mental energy learning the definitions of words through mechanical repetition, compelled memorization, or frequent dictionary consultation.

1.1 Background of Study

The English language is strongly claimed to have inherited the DNA from the grandeur of Roman and Greek civilizations. Many English words are termed 'neo-classical' as a result of the word formation that integrate some elements from the ancient Greek and Latin languages after these languages ceased to be 'living languages' (Booij, 2005). The legacy from these two great empires is undeniably rich in their cultures in that it had since then become the point of reference of the western world. In fact, Rasinski, Padak, Newton and Newton (2008) pointed out that "the most significant contributors to the English vocabulary have been the ancient Greeks and Romans" (p. 142).

The breakthroughs and discoveries in the past were indeed mediated via Latin and Greek languages which encompass politics, literature, philosophy, religion, medicine, law, sociology, and science. Latin and Greek languages are believed to have the lion's share in most English lexicon. This marks the considerable wealth of English history that is tantamount to its lexical productivity. Denning, Kessler, and Leben (2007) state that the proliferation of English lexis along with the history and etymology is very far-reaching, that it has spawned a remarkable development of the vocabulary over time through the process of lexical borrowing at the beginning of time, and further accounts for the phenomenon where many words were being derived from their own roots and adapted to English language since then.

In the age of milliseconds and terabyte, breakthroughs in technology have brought a massive change to the world, including to the global language, English. With the emergence of new technology and other scientific innovations, Greek and Latin roots have become the major reference for English language. Many new terminologies in science and technology have incorporated the Greek and Latin word elements to invent new words. Greek and Latin roots are said to give rise to the coinage of novel words. As *Dictionary.com* mentioned,

> About 80 percent of the entries in any English dictionary are borrowed, mainly from Latin. Over 60 percent of all English words have Greek or Latin roots. In the vocabulary of the sciences and technology, the figure rises to over 90 percent. About 10 percent of the Latin vocabulary has found its way directly into English without an intermediary (usually French). For a time the whole Latin lexicon became potentially English and many words were coined on the basis of Latin precedent. Words of Greek origin have generally entered English in one of three ways: 1) indirectly by way of Latin, 2) borrowed directly from Greek writers, or 3) especially in the case of scientific terms, formed in modern times by combining Greek elements in new ways. Latin and Greek roots are the chief source for English words in science and technology.
>
> *(Dictionary.com)*

The English language is a morphologically-productive language, as Booij (2005) stated that "English both compounding and conversion are very productive" (p. 239). New words are coined almost every year due to the seemingly inexorable march of internet slangs and scientific breakthroughs flooding across the globe. Words such as *Facebook, Instagram, blogosphere, emoticons, browser, cookie, cyberspace, extranet, gigabyte, homepage, login, netizen, upload, wiki, password,* and *podcasting,* were mostly coined by incorporating Greek or Latin elements. Minkova and Stockwell (2009) claimed that "most bound roots found in the language today are of classical origin – i.e. they were borrowed into English from Latin or Greek or other European languages during the Renaissance and after" (p. 70). Almost 90 percent of English words with more than one syllable are Latin-based, and most of the remaining 10 percent are Greek-based (Rasinski et al., 2008). While, according to Minkova and Stockwell (2009), about 60% of all English words have Graeco-Latin origins. Thus, it is noted that a single Latin root can prolifically generate many English words. The unceasing advances in technology have somehow paved the way to the proliferation of English vocabularies since new words are coined year in, year out. In brief, it can be said that if learners know Greek and Latin roots, they can derive meanings of all the new terminologies that the modern age has created.

According to Rasinski et al. (2008), the English language has between 1,200,000 and 2,000,000 words since every year technological wonders bring new modes of communication as well as new words. Denning, Kessler, and Leben (2007) report that the history of English language has contributed major lexical expansion to the present time as *Webster's Third New International Dictionary* lists 476, 000 words excluding technical terminologies in various fields and countless derivatives which stemmed from lexical conjugations and declensions. Bryson (1990), on the other hand, notes that the revised *Oxford English Dictionary* lists 625, 000 words, and adding all the additional scientific and technical words in English would add millions more. This evidently shows a quantum leap in the number of new words coined in the English language that one rough calculation indicates that technology alone contributes more or less 20,000 words annually to English language (Rasinski et al., 2008).

1.2 Statement of Problem

It is a well-known fact that as students make headway to a university, they are bound to encounter more technical jargons and conceptual difficulties (Blachowicz & Fisher, 2002). Due to a limited amount of vocabulary that the students possess, they have to struggle in grasping the scientific jargons, the linguistic knowledge, and also the subject matters. This is in accordance with a claim made by Gill (2007) who mentioned that "this is because when texts become more conceptually complex, and there is minimum support linguistically because of poor proficiency, then this problem is exacerbated" (p. 110).

When dealing with complex words such as science and technology parlance, students are expected to have a prior knowledge about the studied field in order to comprehend the concepts and grasp the terminological complexities found in the academic texts. Graves and Fitzgerald (2006) mention that academic texts used in schools alone consist of more than 180,000 individual words. At the university level, the number of words is expected to increase more than the number in schools. It is worrying that if students do not have a required amount of vocabulary at a tertiary level, it may impede learning and could somehow lead to poor performance in many subjects as reading is construed as a portal of learning where various disciplines of knowledge are accessed and that the ability to read and understand is very much determined by the number of words they know.

Lack of background knowledge in the fields and minimal word knowledge will result in the difficulty in understanding the contents of the text. This is supported by Graves and Watts-Taffe (2008) who mentioned that knowledge of words plays a very significant role in determining learners' ability in reading and understanding texts as reading comprehension involves a number of skills such as making inferences, guessing from contexts, identifying the text genres, skimming and scanning, and understanding the gist of the text.

Nambiar (2005) points out that most students who grapple with reading actually have trouble with the target language and not because of their problem in reading. It is almost impossible if one does not have a good command of a target language to understand any texts written in that language. Although some learners might be very proficient at reading in their native tongue (e.g. Malay) that does not indicate their true competence in reading and understanding foreign texts (e.g. English) if they do not possess a required proficiency of the target language. Gill (2007) point outs that "regardless of which language they use, if their proficiency is weak, then their processing and comprehension skills suffer" (p. 110).

Equipping students with an appropriate strategy to help them acquire a large stock of vocabulary in second language is such a Herculean task as most of ESL classrooms are comprised of students from different proficiency levels, different level of word knowledge, and various ways of learning styles. Expecting them to achieve that within a short time frame is even tougher because that demands an intensive training and well-guided instruction day in, day out.

Language instructors, therefore, have to come up with an effective vocabulary instruction to provide a learning platform for students to get engaged, immersed and participative in the active learning of new words in a linguistically-rich environment (Graves, 2006; Rasinski et al., 2008). It is important to bear in mind that in the field of second language, lexical learning does not happen in an isolation of outside world; that is, L2 learners do not acquire meanings of words in a vacuum because all learning activities and processes take place within the sociocultural, domestic, and classroom domains (Antonacci & O'Callaghan, 2012).

Since previous studies do not particularly specify any vocabulary instruction that seems most effective and successful, researchers conceded that explicit instruction on Greek and Latin derivatives provides a strong platform for students to promote vocabulary development and literacy in the target language (Blachowicz & Fisher, 2006). As supported by The Literacy and Numeracy Secretariat (2009), "when a word is essential for continued understanding of the text, and context clues do not help, the student's next recourse is word analysis" (p. 5). This will then promote vocabulary learning among the learners as well as augment the development of their knowledge on morphology.

Knowledge of morphological analysis of Graeco-Latin word elements has shown many successes in L2 vocabulary learning and development (Baumann & Kame'enui, 2004)and it has tremendously improved the English competence of second language learners through a broad range of proficiency levels (Holmes & Keffer, 1995), fostered morphological awareness among ESL learners as a vocabulary learning strategy to derive word meanings (Lowie, 1998), and enhanced learners' vocabulary literacy and comprehension (Graves, 2006). This is further substantiated by Denning, Kessler, and Leben (2007) who come to a fundamental premise on the importance of morphological analysis in enriching L2 vocabulary,

> Although we cannot expect the language to always oblige us in our quest for shortcuts to an enhanced vocabulary, we fortunately will discover that some of the work has already been done for us: most of the complex words in the language have similar structures. If we learn the rules that reveal the structure of a certain kind of word, it will relieve us of some of the burden (and, perhaps, boredom) of learning all the words of this type individually (p. 5).

Looking at this marvel from lexical learning lens, an introduction to morphemic analysis of a Latin root word like *form* (which means 'shape') will enable learners to create new *form* words and add to their lexical repertoire. Having knowledge of morphological analysis will also enable learners to see a significant relation in meaning between words they already know such as *information*, and words that they may not know such as like *deformity*, as well as words they may have come across before but barely know such as *conformity*. This is in line with what Rasinski et al. (2008) mentioned, "When we teach roots, we reinforce the vocabulary that students have already acquired and then build on that reinforced foundation. The roots approach activates background knowledge and encourages students to advance from the known to the unknown." (p. 31).

Therefore, since there has never been a research on morphological analysis of Greek and Latin word parts carried out in Malaysian context, it is hoped that this research could open the floodgates for a new method of vocabulary acquisition in the area of second language learning particularly in Malaysia.

1.3 Purpose of Study

This research mainly concentrates on the effectiveness of Graeco-Latin morphological analysis deployed as an effective vocabulary learning strategy among three groups of Malaysian ESL science students at an undergraduate level. The purposes of the study are to seek to what extent morphological analysis of Graeco-Latin word parts make the vocabulary learning effective in Malaysian classrooms and also to investigate to what extent knowledge of Graeco-Latin word parts facilitates learners to acquire English vocabulary. The research will focus on science undergraduates of different science majors taking reading class in a Malay-speaking university. Generally speaking, the study is carried out specifically to:

1. Find out the effects of morphological analysis and use of contextual clues on learners' vocabulary acquisition after five weeks of direct instruction.
2. Find out the difference of effectiveness of three different vocabulary interventions used in enhancing learners' vocabulary gain.
3. Find out the most effective strategy for vocabulary learning among the three groups.

1.4 Research Questions

The following are the research questions formulated in order to address the purposes of the study:

1. To what extent does morphological awareness contribute to vocabulary acquisition among science undergraduates?
2. To what extent does morphological awareness of Graeco-Latin word parts contribute to vocabulary acquisition among science undergraduates?
3. To what extent does the use of contextual clues contribute to vocabulary acquisition among science undergraduates?
4. Which specific treatment of vocabulary instruction is more effective for vocabulary acquisition for science undergraduates?

1.5 Significance of Study

Considering the numbers of vocabulary that the English language is comprised of, it is implausible for second language learners to acquire all the words and the meanings in a short time. This should require a variety of strategies to help them improve and enhance their lexical learning and reading comprehension. In this study, the researcher strives to

seek the effectiveness of teaching neoclassical word parts as a vocabulary learning strategy among ESL learners to boost their lexical learning skill and other English skills which later contribute to the holistic development of vocabulary acquisition.

The lion's share of academic, technical, and multisyllabic vocabulary in English are from Latin and Greek that one Latin and Greek word element (a stem or an affix) can assist in the understanding of 20 or more English words (Rasinski et al., 2008). The researcher postulates that if the learners are morphologically aware of word parts within an individual word, they will be able to relate word units to their etymological meanings and thus contribute to a total production of new words and word meanings.

Generally speaking, English language learners can grasp approximately 10 new words per week through implicit instruction, such as by reading (Rasinski et al., 2008). However, by giving them explicit instruction on Greek and Latin roots, they can extraordinarily increase their vocabulary stock between 10 and 20 related words on a weekly basis (Stahl & Fairbanks, 1986). By providing input on Greek and Latin word parts, learners will realize the lexical formula that words with the same roots might have a relationship in meaning. This is because Greek and Latin morphemes found in English lexis are predictably formularized in their meanings and spelling configurations. For instance, learners who know the Latin root *ject* means "throw," has a head start in finding the meaning of the words *eject*, *injection*, *reject, projector,* and *trajectory*.

Learners who can decipher the pronunciation and meaning of new words by deconstructing the root words will eventually perceive the pattern in the spelling and deduce that words of the same roots might be related in meaning. This reveals that most Greek and Latin roots can spawn common words that learners already know and frequently use. The same roots also produce new and difficult words that will activate learners' passive vocabulary bank. This is fundamentally crucial because most of the academic texts learners have to read at an undergraduate level reckon on scientific or complicated lexis that are rarely used in everyday interaction. As Holmes and Keffer (1995) state,

> "If English vocabulary were derived from Latin terms on a one-to-one basis, that is, if students had to learn one Latin term for each English term they decoded, it would not be an efficient strategy to approach English vocabulary through Latin. In fact, one Latin term can provide sufficient information to enable one to decode many English terms" (p. 47)

By having the students equipped with the knowledge of Greek and Latin word parts, it will help them in broadening their conceptual thinking about the underlying meanings of English words and the morphological metamorphoses in which the word elements can be exploited (Rasinski et al., 2008). Once the learners have grasped the knowledge of word parts, it will be strongly hardwired to their mental lexicon and hardly to be forgotten. Pierson (1989) theorises that new information and knowledge the learners have acquired will be linked to something that is already established in their mental

lexicon. In relation to this, the morphological rules the learners have acquired can be easily identified, memorised, and generalised to other unknown words. This is well substantiated by findings in Holmes and Keffer's (1995) research where an intensive short-term program of study of Latin roots has proven to bring about remarkably positive results upon Scholastic Aptitude Test (SAT) verbal scores.

Even though many researchers in the past have sparked off a flurry of debate with regard to the effects of the study of Latin upon learners' vocabulary enrichment (Kelly, 1991; Adams, 1973), a plethora of studies related to Latin language instruction manifested that knowledge of Latin language has a favourable result on vocabulary learning and other linguistic skills (LaFleur, 1985; Holmes & Keffer, 1995; Rasinski et al., 2008).The National Reading Panel (2000), as cited in Lehr, Osborn, and Hiebert (2004), further substantiated that there is no particular direct instruction that would suffice for optimum lexical learning. Thus, this study will exploit vocabulary instruction of neoclassical word elements as a method to improve students' vocabulary knowledge as well as enhance their English language skills. "It is a reasonable notion, then, that a knowledge of the key root words from these parent languages will improve vocabulary" (Holmes & Keffer, 1995: p. 47).

1.6 Operational Definitions

In order to achieve a good understanding of the study and ease the readability of the paper, an explanation of several terms used throughout this paper is provided below.

Affix

A morpheme is a word element which is added to a word and modifies the meaning or function of the word. Affixes are bound forms or also called bound morphemes that can be added to the beginning of a word (which is called prefixes), and to the end of a word (which is called suffix) (Richards, Platt, & Platt, 1992). Affixes are bound morphemes, but not all bound morphemes are affixes (Booij, 2005).

Explicit Instruction

An explicit instruction is a direct teaching method in the presence of both teachers and students in a classroom setting where an input is provided by the teacher as a means to aid the students' learning process.

Morpheme

A morpheme is a linguistic element of meaning that cannot be divided into smaller meaningful parts (Lehr, Osborn, & Hiebert, 2004).It is the smallest meaningful unit in a language that carries meaning. A morpheme cannot be divided without altering or destroying its meaning. For example the English word *kind* is a morpheme. If the *d* is

removed, it changes to kin, which has a different meaning (Richards, Platt, & Platt, 1992). Some words consist of one morpheme, e.g., *kind*, others of more than one. For example, the English word *unhappiness* consists of three morphemes: the stem *happy*, the negative prefix *un-*, and the noun-forming *–ness* (Richards, Platt, & Platt, 1992). Morpheme can also have grammatical functions. For instance, in English the *–s* in *she walks* is a grammatical morpheme which shows that the verb is the third-person singular present-tense form.

There are two types of morphemes: bound and free morphemes. Bound morpheme is a morpheme which is never used alone but must be joined with another morpheme, e.g., as an affix or combining form, such as the English suffix *–ious* must be used with a noun to form an adjective, e.g., *vivacious, cautious, malicious* (Richards, Platt, & Platt, 1992). Free morpheme, on the other hand, is a morpheme which can stand on its own, e.g., *chair, London, cat, heart*. It is important to note that the focus of this research is aimed at analysing bound morphemes in a word and not free morphemes as free morphemes are considered as independent words because they can stand on their own. Bound morphemes here simply refer to prefixes and suffixes.

Morphological Analysis

Morphological analysis is defined as a way of deconstructing or analysing a word into prefix, root, and suffix to derive the meaning of words. Bellomo (2009) defined morphological analysis as "the process of breaking down morphologically complex words into their constituent morphemes (word meaning parts)." (p. 3). For instance, the word *unhappiness* can be dissected into word parts of *un-*, *happy*, and *–ness*. Analysing the meaning of word parts such as *un-* and *-ness* will aid learners apply the skill to derive of other words that have the same word elements. Morphological analysis not only helps learners derive word meanings and functions of words they have never encountered before, but also enrich their existing knowledge on words and meanings (Denning, Kessler & Leben: 2007).

Prefix

A bound morpheme placed at the beginning of a word to adjust or qualify its meaning (e.g. *ex-*, *non-*, *re-, un-*) as an inflection (Richards, Platt, & Platt, 1992).

Stem

Stem is a morpheme from which words have been made by the addition of prefixes or suffixes or by other modification (Richards, Platt, & Platt, 1992). Stems are also known as roots. Booij (2005) states that "there are many roots from Greek and Latin that are used in so called neo-classical compounds but do not occur as words by themselves" (p. 30). Stems or roots thus can be defined as the basic part of a word that can exist independently, for instance, the words *man, hold, cold, rhythm* (Richards, Platt, & Platt, 1992). Bauer (1983) defines stems as a form which is not further analysable, and that word part remains when all derivational or inflectional affixes have been removed. Stems or roots can also be

fused together with other root words such as *house* + *hold* to form *household*, or take affixes as in *manly, coldness,* or takes combining form such as *neur(o)logy* (Richards, Platt, & Platt, 1992). Other terms for root are 'stem' and 'base form'.

Suffix

Suffix is a morpheme added at the end of a word to form a derivative (e.g. *-ation*, *-fy*, *-ing*, *-itis*). Suffix is defined as a letter or group of letters which are added to the end of a word which change the meaning or function of the word (Richards, Platt, & Platt, 1992).

1.7 Theoretical Framework of the Study

The diagram below shows the theoretical framework in which the study is based on. Halle's Theory of Word Formation (1973) and Bialystok's Model of Second Language Learning (1978) form the underpinnings for using morphological analysis of Graeco-Latin stems and affixes in the acquisition of English vocabulary. These two serve as a guiding principle in this study. The combination of Graeco-Latin morphological analysis and contextual approaches together with A Multi-faceted Comprehensive Vocabulary Framework (MCVIP) (Graves, 2006; Baumann, Ware, & Edwards, 2007; Manyak, 2007) results in the output of English vocabulary acquisition.

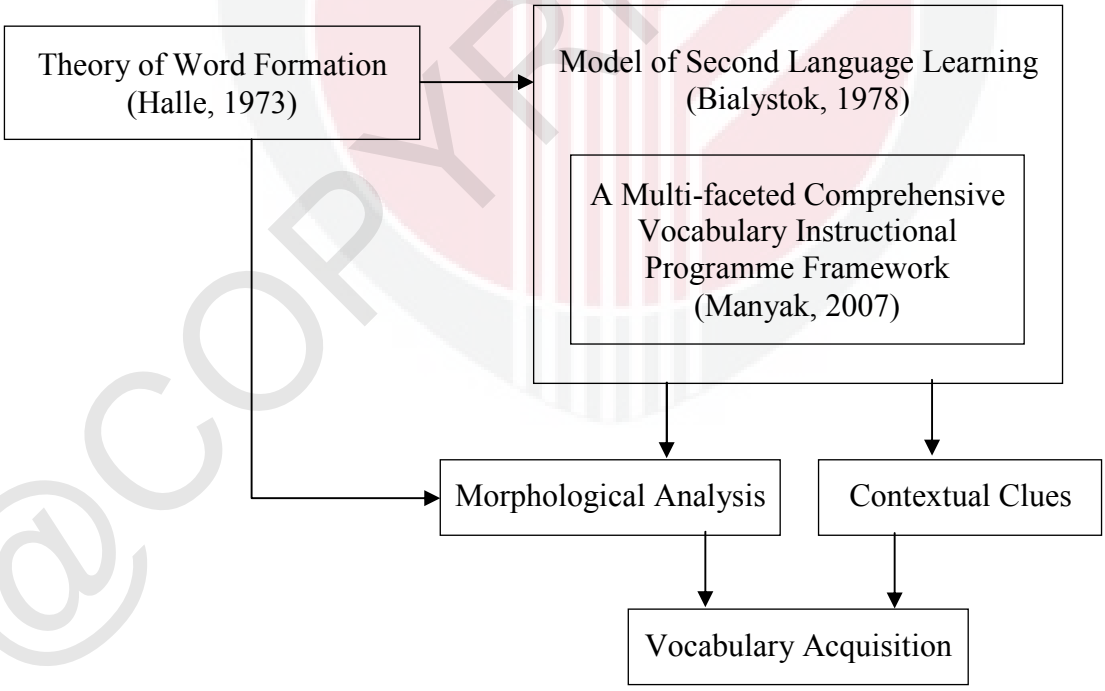

Figure 1. Theoretical Framework of the Study

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LIST OF PUBLICATION

1. Norazha Paiman., Yap, N.T., & Chan, M.Y. (2014). The effectiveness of morphemic analysis of Graeco-Latin word parts as vocabulary learning strategy among ESL learners. *3L: The Southeast Asian Journal of English Language Studies*. (Under Review)