

# Vocabulary Learning Strategies Employed by Form 6 Students

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**Abstract-** Vocabulary learning strategies are classified into 'incidental' and 'intentional' learning strategies that are present in taxonomies of VL strategies by Oxford (1990), Schmitt (1997), Sökmen (1997), etc. Notably, researchers have differing views on which strategy is the key to vocabulary acquisition. In recent years, researchers have begun to take into account all the strategies and recognize their influence on vocabulary learning (Gu & Johnson, 1996). In this study, a taxonomy of VL strategies by Gu & Johnson (1996) and Fan (2003) cited in Ming (2007) was used to identify the pattern of VL strategies of Form Six (Pre-university) students. The results revealed that the samples had a medium frequency of strategy use with an overall mean of  $M=3.21$  ( $SD=.45$ ). They had the highest frequency of use for guessing "I guess the meaning of words I don't know" ( $M=3.80$ ;  $SD=.94$ ) and the least "I carry a pocket dictionary to look up the words I don't know" ( $M=2.22$ ;  $SD= 1.17$ ). Guessing strategy was the most frequently used strategy, followed by perception and encoding strategies. In contrast with previous research, management strategy turned out to be the least frequently used strategy. There were significant differences in strategy use by field of study and gender and a moderate positive correlation between attitude towards VL and strategy use, but there was no significant difference in strategy use in terms of self-rated English proficiency and no correlation between perception of problems in VL and strategy use.

**Index Terms-** Vocabulary learning strategies, vocabulary acquisition, incidental learning, intentional learning, strategy use.

## I. INTRODUCTION

The importance of the English Language continue to gain the attention of all parties - students, parents, teachers, politicians, educators and academicians in all education institutions. Apparently, Malaysians are concerned with the poor standard of English among educated learners, namely graduates. In order to function reasonably well in the second language, learners should at least have 2000 words. Thornbury (2002) asserts that there is a need to equip learners with a core vocabulary of 2000 high frequency words as soon as possible. He also contends that most researchers recommend a basic vocabulary of at least 3000 word families. Hence, without possessing the minimum thresholds of vocabulary learners will face difficulties in all the four language skills - listening, speaking, reading and writing. Lightbrown & Spada (2006) comment that the importance of vocabulary is very clear as communication is still possible by using words that are not placed in the proper order, pronounced perfectly, or marked with

the proper grammatical morphemes, but communication often breaks down if we do not use the word correctly. Hence, we cannot deny the fact that vocabulary is indeed very important and today, vocabulary acquisition has become one of the most active areas in second language acquisition research (Lightbrown & Spada 2006). In Asian education scenario, this view is shared by Hamzah, Kafipour & Abdullah (2009) who reiterated that vocabulary acquisition is currently receiving attention in second language pedagogy and research.

### 1.1. The importance of vocabulary acquisition

Indeed, vocabulary acquisition plays a central role in second language acquisition. A linguist, David Wilkins, concluded the importance of vocabulary learning by saying "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (Thornbury, 2002). Thus, acquiring ample vocabulary is crucial for learners to be proficient in the second language.

In connection to this, it is crucial to highlight a model of second language acquisition by Krashen (1982) called the Monitor model which consists of five hypotheses - the acquisition - learning hypothesis, the monitor hypothesis, the natural order hypothesis, the input hypothesis and the affective filter hypothesis. According to the first hypothesis, Krashen explains that acquisition takes place when learners are exposed to the samples of the second language that they understand similar to children acquiring their first language without consciously giving attention to its form. On the other hand, learning involves consciously paying attention to its form and rule. He added that this acquired system enables the speaker to produce utterances to be used spontaneously. Here, the learned system plays a role as an editor or 'monitor' for making minor changes and polishing the form produced by the acquired system. This is the monitor hypothesis whereby the monitoring takes place when the speaker/writer has plenty of time, has learned the rules required and concerned with the need to produce correct language. Next, according to the natural order hypothesis, acquisition should take place naturally like the first language acquisition but this is not as simple as one expects as language features that look easy are not always easy to be acquired. Hence, even some advanced second language learners may fail to apply this simple rule in spontaneous conversation. The input hypothesis refers to an acquisition that takes place when one is exposed to language that is comprehensible and contains  $i + 1$  where 'i' refers to the level of language already acquired and '+1' is a metaphor for language such as words, grammatical forms, aspects of pronunciation. Finally, the affective filter refers to a metaphorical barrier that causes the learners' failure to acquire language even when appropriate input is available (Lightbrown & Spada, 2006).

Krashen's ideas had great influence during a transition of approaches in second language teaching from learning rules or memorizing dialogues to emphasis using language with a focus on meaning (Lightbrown & Spada, 2006). They also claim that students' exposure to comprehensible input can lead to a great deal of progress even without direct instruction. However, studies also showed that students might reach a point whereby they failed to make further progress on some features of the second language unless they were given direct instruction. With regards to second language acquisition, every student has their own individual learning strategies that they use to acquire the second language. Oxford (1990: 8) as cited in Richards (2005) defines learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, and more transferable to new situations."

In relation to the above, Hulstijn (2003) stated that there were two important learning strategies used by learners in vocabulary acquisitions, namely 'incidental' and 'intentional' or direct study. Incidental learning strategy means students learn vocabulary indirectly or by chance as they engaged in other learning experiences such as reading and listening activities. On the other hand, 'intentional' or direct study is a strategy used by learners to acquire vocabulary by learning it directly for instance by reading and memorising it, learning it by using a dictionary and etc. Past researchers have differing views about which strategy is the key to vocabulary acquisition. Some researchers said that the combination of both strategies is necessary to achieve efficiency in vocabulary acquisition.

Modern foreign language pedagogy stresses the importance of teaching students appropriate learning and studying strategies (Brown, 2002; Oxford, 1990). In reality, however, learners tend to use a variety of strategies in combination rather than as a single one.

## 1.2. Background of the study

English has gained importance and fair attention in the Malaysian education system. Hence, efforts have been geared to improve the teaching and learning of English Language in schools. Curriculum involving the English syllabus is revised from time to time to meet those needs and teachers are being equipped with the knowledge and skills to impart the knowledge to their students. Teachers are also taught the knowledge of Information Technology to enable them to carry out the teaching and learning processes by using information communication technology (ICT) tools in order to enhance students' understanding and acquisition. Despite these concerted efforts, there has been a great concern among Malaysians about the poor command of English among young Malaysians.

"The decline of proficiency in the English Language among young Malaysians is a cause for concern especially when the language continues to be an important communication tool in an increasingly competitive and borderless world (The Sunday Mail, August 8, 2004). It was reported that a poor command of English and the lack of ICT knowledge were among the reasons for over 44,000 unemployed graduates in the country (The Star, July 28, 2002). Amidst this scenario in our country's education system, the government introduced the teaching of Science and Mathematics in English which became effective in 2003 whereby students who were in the first batch were those in Year One,

Form One and in the first year of pre-university level would study the two subjects in English (The Straits Times, January 6, 2003).

Although the government has made the stand that the policy is reversed i.e. Science and Mathematics will be taught in Bahasa Malaysia and vernacular languages in stages, from 2012, the importance of English will continue to be given attention. It was stated that bold and decisive measures will be put in place to strengthen the teaching of English at all levels of education – primary, secondary and matriculation (The Straits Times, July 9, 2009). The measures include increasing the English Language hours, English Children Contemporary Literature programme will be introduced to Level 2 primary students to instill reading interest, English language laboratories will be set up in schools to facilitate the learning of English more effectively, information technology will be utilised in the teaching and learning of English via suitable computer software, grammar will be given emphasis in the teaching and learning of English, etc. (The Straits Times, July 9, 2009). In relation to this, the Deputy Education Minister, Datuk Dr Puad Zarkashi said the government would spend RM5 billion in its effort to improve the teaching and learning of English in schools (The Straits Times, July 10, 2009). But, what really causes the poor proficiency of students in the English Language? One possible reason discovered is that students are lacking in vocabulary to function well in the stated four language skills. In order to function well, students need to acquire ample amount of vocabulary. In connection to this, included in every English syllabus for Primary or Secondary school is a word list that students need to acquire throughout a one year course of study. This word list is chosen based on the topics covered in the English syllabus, but have students learnt and acquired all the words listed in the word list? This decontextualised word lists have been used extensively to teach vocabulary. Presenting vocabulary in list form is an efficient study method in which students can learn a large number of words in a short time (Meara, 1995). The weakness with such lists, however, is that they present words that have been stripped of all context-based meaning. To enable students to use these lists more effectively, lists are now generally included in a reading passage to provide context which are easy to memorize. Hence, subsequent exposure to meaning in context will allow students to fine-tune the approximate meanings learned from the list. Through direct study or intentional learning students should be able to acquire these words and widen their vocabulary size. Besides, incidentally students also build up their vocabulary through their extensive reading. Notably, past researchers have differing views about which strategy is the key to vocabulary acquisition. In reality; however, learners tend to use a variety of strategies in combination rather than as a single one (Lachini, 2007). Therefore, the purpose of this study is to examine the learning strategies used by the Form Six (Pre-university) students in relation to their fields of study, gender, self-rated proficiency, attitudes and problems in vocabulary acquisition. It also aims to investigate the most and least frequently used categories of vocabulary learning strategies by the Form 6 students.

## 1.3. Research Objectives

The objectives of this study are as follows.

- a. To identify the vocabulary learning strategies employed by the Form 6 students in their language learning?
- b. To find out the most and the least frequently used categories of vocabulary learning strategies by Form 6 students.
- c. To examine the differences in the use of vocabulary learning strategies among the Form 6 students in relation to field of study, gender, self-rated English proficiency and attitude towards vocabulary learning?
- d. To investigate whether the problems experienced in vocabulary learning by Form 6 students are related to the strategy use of vocabulary learning?

#### 1.4. Research questions

This study serves to research the following questions:

- a. What vocabulary learning strategies do the Form 6 students employ in their language learning?
- b. What are the most and the least frequently used categories of vocabulary learning strategies by Form 6 students.
- c. Are there any differences in the use of learning strategies among these students in relation to field of study, gender, self-rated English proficiency and attitude towards vocabulary learning?
- d. Are the problems experienced in vocabulary learning by Form 6 students related to the strategy use of VL?

#### 1.5. The significance of the study

Vocabulary acquisition is one of the important prerequisites for learners to function well in a language especially in relation to the four language skills – reading, speaking, listening and writing. Related studies on vocabulary acquisition show that students are unable to function well in L2 as their vocabulary size is limited. It is also found in studies that students are not ready for higher level of studies due to the said limitation and they face difficulties in the target language when they continue their studies to higher level of studies namely to Upper secondary school. Thus, a poor vocabulary acquisition in Lower secondary school has adverse effects on students' English Language learning in Upper Secondary school. Through random observation during lessons, it is discovered that these students have difficulties in reading and understanding more challenging and difficult reading texts. Their limited vocabulary size also affects other language skills such as speaking and writing. Above all, this deficiency leads to the lack of confidence in using the language in general and this, in the long run will hamper the second language acquisition. This study is chosen upon realizing its importance and contributions to teachers, the school, students and future research in relation to vocabulary acquisition.

First and foremost, teachers will benefit from the results of this study. It is significant for educators or teachers to know about the most frequently used strategies by students in vocabulary acquisition as this will be able to help them in building up their vocabulary. The results of this study will provide information to teachers about some suitable techniques which they can use to help students build up their vocabulary capacity. Based on the results of this study later teachers can take the necessary steps, which would be helpful in motivating and helping students to build up their vocabulary capacity. Besides, teachers will be able to obtain some crucial knowledge about the approaches students used for each learning strategy. With this

knowledge, teachers will be able to take positive efforts especially in the classroom to implement these approaches obtained from this study in future. Hamzah, Kalipour & Abdullah (2009) contend that the understanding of the students' beliefs of vocabulary learning and their learning strategies use will provide teachers and researchers knowledge about the types of materials and activities to be designed to polish their vocabulary learning in order to enhance their lexical competence.

Secondly, the school will also benefit from this study. The school will be able to obtain useful statistics about the students' learning behavior, English proficiency and problems in connection to vocabulary acquisition. As information about the types of approaches students use to widen their vocabulary size can also be obtained, the school may be able to take a proactive efforts to implement them in the school curriculum. The school management can also work closely with teachers in the school by providing the necessary resources – whether financially or physically to develop a reading culture which can help to develop students' vocabulary thresholds.

Certainly, the students themselves will benefit from this study. Through the questionnaires given to them, students will be able to know about their own abilities in relation to vocabulary acquisition. Thus, it serves as a 'check and balance' effort to improve their vocabulary learning. They will be able to reflect how far they have progressed in building up their vocabulary and make the necessary adjustment in their reading habits. In the long run, they will be able to see the importance of vocabulary acquisition toward their proficiency in English and academic achievement. Nation (2001) and Scharle & Szabo (2000) as cited in Hamzah, Kalipour & Abdullah (2009) pointed that the benefits gained from vocabulary learning strategies is they enable learners to take more responsibility for their studies as they learnt to take control of their own learning.

Researchers of the second language acquisition will gain the advantage through this study. They will be able to explore deeper into this area of research or even dispatch a research on a more specific aspect of vocabulary acquisition. For instance, taking the most crucial and frequently used learning strategies to be researched upon. Thus, this research paper will serve as a stepping stone to achieve future endeavour in related field. This is especially meaningful for future development of the second language acquisition in Malaysian context of education, in line with the government effort to upgrade the standard of English amongst students in schools and the institution of higher learning. Certainly, vocabulary acquisition is a critical research area that needs to be studied further by local researchers to make the government's dream of uplifting the standard of English among Malaysians a success.

Thus, this study has its own significance to teachers, schools, students and future research. Above all, the results obtained from this study will help to suggest pertinent recommendations relating to pre-university students' vocabulary learning strategies.

#### 1.6. The limitations of the study

However, there are some limitations of this study. First, it only uses questionnaires to obtain information about students' attitude, English proficiency, problems and the most and the least frequently used strategies to learn vocabulary. Thus, the results

may not be conclusive. Second, this study is only involving the Form 6 (Pre-university) students of one selected secondary school in Samarahan, Sarawak. Thus, the results may not portray the condition of other students' vocabulary learning strategies in other schools and cannot be generalised to a larger population.

## II. LITERATURE REVIEW

This chapter provides evidence on the importance of vocabulary learning in the second language acquisition, the vocabulary size needed in order to be proficient users, intentional and incidental vocabulary learning, taxonomies of vocabulary learning strategies and related studies in vocabulary learning strategies.

### 2.1 Introduction

Past researchers have proven and recognised the importance of vocabulary in Second and Foreign Language learning and acquisition. Leaver, Ehrman & Shekhtman (2005) said that vocabulary has been called the building blocks of language learning and the proponents of some teaching approaches (e.g. the Natural Approach) believe that vocabulary is the most important thing in acquiring a language. They added that the more vocabulary ones know the more things ones will be able to talk about, read about, write about, and listen to well. Studies by previous researchers found that a considerable amount of vocabulary size is crucial for learners to function effectively in the four language skills - listening, speaking, reading and writing. Laufer & Sim (1985) and Qian (2002) cited in Tschirner (2004) asserted that an important predictor of efficient reading and of academic success in general, is vocabulary size.

### 2.2 Knowing a word

English vocabulary is expanding continuously with time as Pittman (2003) pointed out that English vocabulary is enormous and is growing steadily with the assimilation of technology and culture whereby there are large number of new words introduced from time to time. Thus, learning and knowing new words is crucial for learners of both EFL and ESL. But, what does knowing a word mean?

Generally people believe that knowing a word means knowing its meaning. Cook (2001) cited in Wa-Mbaleka (2002) explained that a word is more than its meaning because it involves 4 aspects of comprehension: form, grammatical properties, lexical properties and meaning. Similarly, Nation (1990) and Oxford & Scarcella (1994) cited in Ming (2007) commented that knowing a word involves more than the ability to recognize its form or its dictionary meaning but also includes knowledge of its grammatical properties and collocations, functions and the ability to use the word correctly in interactions. In connection to vocabulary learning, Oxford & Scarcella (1994) cited in Ming (2007) classified it into three types: decontextualized (e.g. word lists, flashcards, dictionary-lookup), partially decontextualized (e.g. word grouping, word association/elaboration, physical response) and fully contextualized (i.e. practicing the four language skills in authentic communication activities). On the other hand, Hatch & Brown (1995) cited in Wa-Mbaleka (2002) identified 5 steps to learning new words: encountering new words, learning word

form and word meaning, remembering the word form and meaning in memory and finally using it in a language function. Based on this explanation, they reached an understanding that learners need to reach the receptive comprehension before they can achieve the production comprehension.

Thus, knowing a word requires considerable efforts on the part of the learners to go through quite a tedious process of learning the related elements to acquire a complete knowledge of a word.

### 2.3. Vocabulary size

Nation (2001) believed that a large amount of vocabulary could be acquired by using vocabulary learning strategies and they are useful for learners of different proficiency levels. Thus, it is crucial for learners to learn many words in order to be proficient in a foreign language. Waring (2002) points out that educated English native speakers have a vocabulary of about 20,000-25,000 word families (A 'word family' refers to a group of words that share the same basic meaning e.g. create, creation, creating, created, creative etc) but foreign learners of English need far fewer. The speaking vocabulary is usually said to be half of the reading and writing vocabulary. Basically, foreign learners of English only need about 3000-5000 word families to be quite competent in speaking and listening to English. However, Nation & Waring (1997) argued that it should not be assumed that if a learner has sufficient vocabulary then all other aspects of language usage are easy. Notably, vocabulary knowledge is only one component of language skills such as reading and speaking, hence, it should not be assumed that substantial vocabulary knowledge is always a prerequisite to the performance of language skills. Nevertheless, it is important to know that vocabulary knowledge enables language use, language use enables the increase of vocabulary knowledge, knowledge and language use and so on (Nation, 1993a) cited in Nation & Waring (1997). Thus, we cannot deny the crucial need of second language learners to acquire ample vocabulary size to enable comprehension and continuous learning to take place.

McCarthy & O'Dell (1999) suggested that to speak and write English in normal situations you need at least 1000-2000 words. On the other hand, Sheehan (2004) asserted that perhaps the most significant figure, however, is the one corresponding to the most frequent 2000 words. It is explained that the top 2000 words account for about 80% of reading texts. In other words, a learner who knows the most frequent 2000 words will be able to understand about 80% of a text (one in five words, or 20%, will be unknown). From this evidence, we can conclude that 2000 words is the absolute minimum a language learner needs in order to be able to process a text. Any fewer than that, the unknown gaps in the text will be too many to enable the learner to deduce meaning from context. Analysis also shows that "knowing" 10,000 words means that 93% of a text will be understood. This is recommended as the next ideal vocabulary size for a proficient language learner.

It is clear from the above that learners are not going to get very far or be a proficient user without ample vocabulary size. Hence, a program of systematic learning will enable learners to acquire measurable language gains which will give a sense of accomplishment, achievement, and building confidence. Research evidence shows that we don't start speaking in

sentences until a critical threshold of language has been learned (in both 1st and 2nd languages). A larger vocabulary allows learners to get to the point where they understand most of a text. Only when about 98-99% (1 new word in 100 or 1 in 50) of a text is understood can one consistently and successfully guess new word meanings from the context. Research shows that below this level, successful guessing without the need to turn to a dictionary is extremely difficult (Waring, 2002).

## 2.4. Intentional and incidental vocabulary learning.

Hulstijn (2003) pointed out that there are two popular views on what it means to learn a second language. One view holds that it means months and even years of 'intentional' study, involving the deliberate efforts done to remember thousands of words (their meaning, sound, and spelling) and dozens of grammar rules. The other, 'incidental' learning' involving the 'picking up' of words and structures, simply by engaging in a variety of communicative activities, in particular reading and listening activities, during which the learner's attention is focused on the meaning rather than on the form of language. In short, intentional learning is defined as a learning process that is being designed, planned for, or intended by a teacher or a student and incidental learning as the type of learning that is a byproduct of doing or learning something else (Hatch & Brown, 2000).

Research by Nagy and colleagues claimed that learning from context is one of the most significant aspects of incidental learning. This laid the groundwork for the belief that authentic context is a particularly powerful source of incidental language learning (Krashen, 1989; Pitts, White & Krashen, 1989) cited in Smith, Kilgariff & Sommers (2008). Incidental vocabulary acquisition is a common mean of learning new vocabulary, especially for proficient readers. Students with strong reading skills who read a variety of texts may realize substantial gains in their vocabulary without direct instruction. The incidental learning of vocabulary requires that teachers provide opportunities for extensive reading and listening. As cited in Hunt & Beglar (2002), in the long run, most words in both first and second languages are probably learned incidentally, through extensive reading and listening (Nagy, Herman, & Anderson, 1985).

However, there is little doubt that incidental learning, particularly, that is acquired through reading is key to learning the vocabulary necessary for functioning in an English environment. Some researchers have argued that this form of acquisition has limitations and that an essential role is played by the direct instruction of strategies for learning vocabulary and meaning. Without these, they believe long-term retention of new vocabulary rarely follows. They emphasize the role of dictionaries and other word reference books, and note that direct instruction is important in fostering an interest in words (Smith, Kilgariff & Sommers, 2008). According to Chaffin (1997) and Zechmeister, Chronis, Cull, D'Anna & Healy (1995) cited in Shostak (2002), research has shown that although reading is essential for vocabulary growth and development, it is not sufficient for most students because the meanings they take away from their readings will not be deep and enduring: nor does it help them gain strategies for becoming independent word learners. Researchers agree that although reading is indeed important to achieve deeper, richer levels of lasting vocabulary

understanding, direct instruction is more effective and more efficient than incidental learning (McKeown & Beck, 1988).

What is actually meant by "intentional learning" or "direct study"? In the literature on vocabulary learning, "intentional learning" is commonly given a cognitive interpretation, as the rehearsal and memorizing techniques invoked by learners when they have the explicit intention of learning and retaining lexical information (Schmitt, 1997) as cited in Hulstijn (2005). Direct acquisition studies recognize that vocabulary can be learnt using tools that bring the learner's attention into direct contact with the form and meaning of words, such as dictionaries and vocabulary lists. Leaver, Ehrman & Shekhtman (2005) assured that certainly one could seek to gain a large vocabulary by memorizing the dictionary. However, the question of how best to use these tools for direct vocabulary acquisition remains unanswered.

In Taiwan, and other parts of Asia, the traditional (and intuitively suboptimal) approach has been simply to memorize the vocabulary item along with one or two possible L1 translations (Smith, Kilgariff & Sommers 2008). Of the two ways students acquire vocabulary, direct study is the more efficient, particularly for high-risk students with poor vocabulary (McGraw-Hill, 2005). This is supported by Shostak (2002) who said that the teaching of vocabulary should be systematic, repetitive and eclectic. In introducing new words, teachers should be guided by three principles that Stahl (1986) recommends that other research supports: (1) use both a definitional and a contextual approach. (2) strive for "deep processing" and (3) provide multiple exposures (Baumann & Kameenui, 1991).

In general, emphasizing explicit instruction is probably best for beginning and intermediate students who have limited vocabulary. On the other hand, extensive reading and listening might receive more attention for more proficient intermediate and advanced students. In view of the important role played by vocabulary in Second language acquisition, Hamzah, Kafipour & Abdullah (2009) contended that a number of linguists have recognized the importance of learner independence in vocabulary acquisition for many years. Hence, it is vital to help L2 learners to be independent learners in order to speed up their vocabulary acquisition process.

## 2.5 Implicit and explicit learning

Apparently, there are several interpretations of the terms "implicit" and "explicit" learning. One important characteristic feature that differentiates implicit and explicit learning is the absence or presence of "conscious operations" (Ellis, 1994) and as the absence or presence of "awareness at the point of learning" (Schmidt, 1994) cited in (Doughty & Long, 2003). Hence, an implicit vocabulary learning learners are engaged in activities that do not focus attention on vocabulary (Mohseni-Far, 2008). The implicit vocabulary learning hypothesis has its roots in Krashen's Seminal Input Hypothesis (Krashen, 1989) which maintains that the meanings of new words are acquired subconsciously as a result of repeated exposure in a range of contexts, where the conscious focus is not on form, but on the message. On the other hand, the explicit vocabulary learning hypothesis holds that the employment of a range of vocabulary learning strategies can greatly facilitate and enhance vocabulary acquisition; in this view, learners are seen as active processors of information (Ellis, 1995). From a pedagogically oriented

perspective, the goal of explicit teaching is 'to lead the learner's attention', whereas the aim of an implicit focus on form is 'to draw the learner's attention'. In fact, there is evidence in recent studies of second language learning learners that a combined approach is superior to a single learning method. Most researchers have recognized that a well-structured vocabulary programme needs a balanced approach that includes explicit teaching together with activities providing appropriate contexts for incidental learning (Celce-Murcia, 2001: 286). Hunt & Beglar (2005: 3) also highlighted the point that the most efficient learning involves a carefully selected combination of both explicit and implicit instruction and learning.

## 2.6 Taxonomies of Vocabulary learning strategies and related studies

The above incidental and intentional vocabulary learning are present in taxonomies of vocabulary learning strategies such as Schmitt's (1997) taxonomy of VLS is based on Oxford's (1990) division of language learning strategies into direct (memory, cognitive, and compensation) and indirect (metacognitive, affective, and social) strategies. Catalan (2003) cited in Ruutemets (2005) contended that VLS constitute knowledge about what students do to find out the meaning of new words, retain them in long-term memory, recall them when needed in comprehension, and use them in language production.

Several VLS taxonomies have been proposed (Gu & Johnson, 1996; Schmitt, 1997; Nation, 2001; all in: Segler et al., 2001) and they classified L2 vocabulary learning strategies in several different ways. As stated earlier, Oxford, (1990) classified the strategies into two main dimensions: direct and indirect. Sökmen (1997) categorizes vocabulary learning strategies into implicit and explicit teaching of words. Implicit teaching includes inferring of words from context. Explicit teaching consists of several strategies such as building a large size of vocabulary, integrating new words with the old ones, providing adequate amount of encounters with a word, promoting deep level processing, using different techniques, encouraging independent learner strategies, etc. In addition, Sökmen (1997) cited in Schmitt (1997) also iterated that in the 1970s and 1980s vocabulary learning focused mainly on implicit and incidental strategies and it was not given much attention as other language aspects, for instance, grammar. Nevertheless, the use of explicit vocabulary teaching is growing nowadays. Vocabulary learning strategies can also be divided into two groups; the first group concentrates on understanding the meaning of words and the other includes the strategies for acquiring words (Cook, 2001).

Sanaoui (1995) introduced two different approaches to vocabulary learning: a structured and an unstructured approach which differ along 5 dimensions. Schmitt (1997) adopted Oxford's (1990) VLS to develop a comprehensive inventory of individual vocabulary learning strategies. In order to include the case where meanings of new words are discovered without the help of other people's expertise, Schmitt introduced a fifth category, determination (DET) strategies. Schmitt's taxonomy of vocabulary learning strategies is grouped into 5 main categories with 58 individual strategies in total. The strategies are determination strategies, social strategies, memory strategies, cognitive strategies, and metacognitive strategies.

Gu & Johnson (1996) created a taxonomy on the basis of the responses to their self-reporting questionnaire. The researchers identified six types of strategy: Guessing strategies (using background knowledge/wider context, using linguistic cues/immediate context), Dictionary strategies (Dictionary strategies for comprehension, extended dictionary strategies, looking-up strategies), Note-taking strategies (Meaning-oriented note-taking strategies, usage-oriented note-taking strategies), Rehearsal strategies (Using word lists, oral repetition, visual repetition), Encoding strategies (Association/ Elaboration, imagery, visual encoding, auditory encoding, using word-structure, semantic encoding, contextual encoding) and Activation strategies (Memorising lists of facts by linking them to familiar words or numbers by means of an image, remembering lists by picturing them in specific locations, establishing an acoustic and image link between an L2 word to be learned and a word in L2 that sounds similar).

Notably, most of the studies conducted on vocabulary learning have examined the effectiveness of the individual strategies (Cohen & Aphek, 1980) or have compared the results of the application of two or three strategies (Royer, 1973; Atkinson, 1975; Crow & Quigley, 1985). In addition, Edar (2008) contends that the research which has been done on vocabulary learning strategies has predominantly tended to deal with individual or small number of strategies, with very few studies looking at the group of vocabulary learning strategies as a whole. Fewer studies can be found on learner-related vocabulary learning strategies. Only in recent years have researchers begun to consider all the strategies and recognize their influence on language/vocabulary learning (Gu & Johnson, 1996). This approach seems to be more realistic because no language learners use just a single strategy for vocabulary acquisition. Therefore, researchers have taken an alternative approach to vocabulary acquisition research, i.e., a holistic/integrated approach which incorporates all the strategies that have their role in the expansion of vocabulary (Gu & Johnson, 1996) as cited in Lachini (2007)

Besides, (Gu, 2003) also comments that research efforts have largely been directed towards discovering the "best" strategy for vocabulary retention. In reality, however, learners tend to utilize a variety of strategies in combination. Recent research (e.g., Ahmed, 1989; Gu & Johnson, 1996; Parry, 1997; Sanaoui, 1995) indicates that these approaches to, or styles of vocabulary acquisition, which may relate more to the learner than to the task, may be more potent predictors of success than individual vocabulary learning strategies. Mohseni-Far (2007) reveals that most of the noted recent researchers came to this conclusion that the most efficient and practical learning approach involves a carefully selected combination of both explicit and implicit instruction and learning.

The field of research on vocabulary learning strategies needs a diversification of approaches. This includes continuous efforts in theory building so that future empirical research receives clearer guidance (Laufer & Hulstijn, 2001; Meara, 1998), more bottom-up empirical effort on different aspects of vocabulary learning at different stages of acquisition for different learners in various cultural and educational contexts will help us answer so many other research questions beyond the presentation and retention of words. After all, a full-fledged, interrelated, functional, and dynamic L2 vocabulary is developed, gradually,

and grows by itself, if the learner makes use of strategies that aim for the use, rather than retention, of words. Mohseni-Far (2008) commented that in spite of the expansion in the amount of empirical research on vocabulary acquisition, consensus is lacking over issues such as the conceptualization of the process by which vocabulary acquisition occurs, the importance of context for acquiring vocabulary, and the extent to which learners build up specific strategies for vocabulary learning during their language acquisition.

Based on this literature review, this study focuses on the examination of vocabulary learning strategies of Form 6 (Pre-university) students. A relatively comprehensive taxonomy of vocabulary learning strategies by Gu & Johnson (1996) and Fan (2003) as cited in Ming (2007) were identified and evaluated with respect to several important dimensions of vocabulary acquisition and their suitability with the participants of the study.

### III. THE RESEARCH METHODOLOGY

This chapter explains the type of research employed, the population and samples involved in this study, the data collection method, procedures involved in the data collection and the analysis.

#### 3.1. Research Design

##### 3.1.1 Type of research

This is a survey Research (Cross-sectional design) which requires the collection of information about variables or phenomenon within a population through the use of questionnaires (Heppner et al., 1992; Garson, 2006). A cross-sectional design involves data collection at a single point in time from samples representing a population (Babbie, 1990)

##### 3.1.2 Population and samples

A simple random sampling technique is used to randomly select the samples. There are about 156 Form 6 (Pre-university) students at SMK Sungai Tapang, Samarahan (44 Science students and 112 Arts students) for the academic year 2009-2010 and 2010-2011. For the purpose of this study, 88 students who were made up of all the 44 Science students and 44 Arts students were selected randomly from the total of 112 students who studied in four different classes namely Upper Six Science One and Two, Upper Six Arts One and Upper Six Arts Two, Lower Six Science One and Two and Lower Six Arts One and Two. In this academic year (2009-2010), the researcher was teaching MUET (Malaysian University English Test) to two classes (Lower Six Arts One and one Upper Six Science One). The students chosen as samples were made up of 5 different races: 53 Chinese, 20 Bidayus, 6 Ibans, 6 Malays and 3 others (1 Kayan, 1 Melanau and 1 Indian) who lived in Kota Sentosa, Bau and Samarahan. Fifty-two were females and 36 were males and the age of the students ranged from 17 to 20 years old. They had studied English as second language between 11 and 12 years. Both students from the Science and Arts streams were taking MUET (Malaysian University English Test) as a compulsory subject to take in Form Six because it was necessary for them to have a MUET exam slip as a requirement to further their studies to the university.

##### 3.1.3. Data collection method.

The data for this study was collected using Self-administered questionnaires which consist of two sections. The first section is a vocabulary learning questionnaire adapted from Gu & Johnson (1996) and Fan (2003) as cited in Ming (2007). It contains 28 statements on students' approaches to vocabulary learning which are divided into eight categories.

There are four statements on dictionary use (DIC), two statements on rehearsal (REH), five statement on management (MAN), four statements on sources (SOU), two statements on guessing (GUE), five statements on encoding (ENC), two statements on activation (ACT) and four statements on vocabulary perceptions (PER). The respondents were required to rate their frequency of use which was measured by 5-point Likert scales (1=Never, 2 = Rarely, 3 = Sometimes, 4 = Very often and 5 = Always). As measured by Cronbach's alpha, this instrument has an internal consistency of .87 (Ming, 2007). The second section contains a series of demographic questions about the respondents' age, sex, field of study, etc and questions about students' self-rated proficiency, attitudes towards vocabulary and vocabulary learning and their perceptions of problems about vocabulary learning.

Despite its high validity and reliability, a pilot testing was carried out with 20 samples. It was done with the reason that one item was missing in the questionnaire and it was replaced with an item of the same category which was taken from another research paper. The pilot testing was also done as it was used in a different setting and with different samples. The pilot testing as computed by Cronbach's alpha showed that the instrument had high validity and reliability of .85.

##### 3.1.4. Procedures

Several procedures were followed in order to collect the relevant data required for this research. They are as follows;

(i) Permission was obtained from the Principal of the school to carry out this research with the specified sample of students.

(ii) Adapting and constructing questionnaires - A set of questionnaires used by previous researcher was adapted by taking only relevant questions, doing modifications such as replacing one missing item and simplifying difficult questions.

(iii) Pilot Testing - When the questionnaires were ready, pilot testing was carried out with 20 Form Six students of the same school. This was carried out to test its validity, reliability and practicality based on local context.

(iv) Analysing data to test reliability using Cronbach's alpha and doing modification where necessary.

(v) Distributing questionnaires to students - The standardized questionnaires were distributed to all the 88 samples who were selected using random sampling. The samples took 15-20 minutes to complete the questionnaires. Before answering the questionnaires, students were told that their participation was voluntary and their responses would be kept confidential. Besides, they were told to give their opinions as honestly as possible as it was vital for the success of this study.

(vi) Questionnaires were collected and analysed. Results required were stated and highlighted for the purpose of the research.

(vii) The responses obtained were then computed into raw data and analysed in the form of tables. The quantitative data was then interpreted and the results were generated.

**3.2. Data Analysis**

The data obtained from the questionnaire was coded for statistical analysis to answer the research questions. The Statistical Package for the Social Sciences (SPSS, version 17.0) was used for statistical analysis. Descriptive statistics (means, standard deviation, etc.) were applied to obtain patterns of demographic information from the questionnaires and strategies use. Specifically, to identify the vocabulary learning strategies employed and to find out the most and least frequently used categories of vocabulary learning strategies by the sample students in their language learning, data obtained was analysed by comparing the central tendencies; means and standard deviation. In addition, two- Independent-Samples tests using Mann-Whitney U test and Spearman’s Rho Correlation Coefficient were computed to determine whether there were any significant differences in the strategies use in relation to samples’ field of study, gender, self-rated proficiency, attitude towards VL and perceptions of VL problems (Wei, 2007). The data obtained was conceptualized in the form of tables and the results of the study were noted quantitatively and qualitatively.

**IV. RESULTS AND DISCUSSION**

This chapter presents the results of the research study. The results presented are based on the data analysis obtained and they

are presented both quantitatively and qualitatively. The data is presented in the form of tables and the key features highlighted and discussed to provide answers for the research questions. Then, comparison of results of the present study with previous studies is done to generate new understanding and knowledge about the Form Six students’ vocabulary learning strategies in relation to their field of study, gender, self-rated proficiency, attitude and perceptions of problems in vocabulary learning.

**4.1. Introduction**

The data obtained from the questionnaire was analysed using SPSS 17.0 and the results noted quantitatively and conceptualized in the form of tables. Then, the researcher highlighted the quantitative data obtained to generate the results of the study to answer the research questions. The results obtained exhibited some of previous research findings and also demonstrated some contrasts which gave new insights and knowledge about a pre-university students’ vocabulary learning strategies in second language acquisition.

**4.2. Results**

**4.2.1 The vocabulary learning strategies employed.**

Table 4.2.1 below shows the vocabulary learning strategies employed by the eighty-eight samples of the Form Six students under study. It is listed in a descending order based on the means and standard deviations obtained using descriptive statistics.

*Table 4.2.1 Means of Vocabulary Learning Strategies used by the Sample Students in Descending Order*

Cate- gory	Strategy	N	Mean	Std. Deviation
GUE	I guess the meaning of words I don't know.	88	3.8068	.94514
SOU	I listen to English songs, radio programs, watch English movies, etc to increase my vocabulary.	88	3.7727	1.07988
ENC	I try to remember the BM or Chinese equivalent of the word.	88	3.7159	1.11364
GUE	I check to see if my guesses about the words are right or wrong.	88	3.6818	.95346
PER	I pay attention to the pronunciation of new word.	88	3.6477	.92276
MAN	I highlight the words that seem important to me.	88	3.6250	1.03182
DIC	I look up new words in an English-Bahasa Malaysia or English-Chinese dictionary.	88	3.6250	1.22533
PER	I pay attention to the example of how a word is used in English.	88	3.6136	.90251
DIC	When I look up a word in the dictionary, I read all the meanings of new words.	88	3.6136	1.10829
PER	I pay attention to the unfamiliar usage of a known word.	88	3.5341	.94624
ENC	I try to remember the sentence in which the word is used to remember it.	88	3.3864	.99922
ACT	I use the newly-learned words as much as possible in speaking and writing.	88	3.2386	.95886
ENC	I associate new words with those I already know.	88	3.2386	.83038



SOU	I read stories, magazines etc outside class to increase my vocabulary.	88	3.1591	1.13347
SOU	When I come across a new word, I make a note of it.	88	3.1364	.99634
ENC	I distinguish words with similar meanings.	88	3.1250	.78510
DIC	I look up new words in an English-English dictionary.	88	3.1023	1.24143
REH	I repeatedly visualize the new word to remember it.	88	3.1023	.98307
PER	I pay attention to the grammatical patterns of a new word	88	3.0455	.82920
REH	I repeat a new word out loud several times to remember it	88	3.0455	1.12351
SOU	I use textbook to learn new words.	88	2.9659	.77976
ENC	I analyse the structure of a word to remember it.	88	2.9091	.95456
MAN	I keep a vocabulary notebook to jot down new words I want to learn.	88	2.8636	1.08471
ACT	I make up my own sentences using the words I just learnt.	88	2.6591	.98128
MAN	I review my vocabulary regularly	88	2.6477	.88460
MAN	I group words in my own way to remember them.	88	2.4773	1.00547
MAN	I make plans for my vocabulary learning	88	2.2841	.88342
DIC	I carry a pocket dictionary to look up the words I don't know.	88	2.2273	1.17177
Overall		88	3.2103	.45179

Table 4.2.1 shows the mean values of all the 28 strategies used by the samples selected for this study. It is discovered that the average mean of frequency of strategy ranged from 2.22 to 3.80, with an overall mean of 3.21 ( $SD = .45$ ) indicating a medium strategy use. The students preferred Vocabulary Learning strategies that involved guessing, listening, perceptions and dictionary use. Hence, they chose to guess the meaning of new words that they did not know and this had the highest mean in terms of its frequency of use i.e.  $M = 3.80$  and a standard deviation of  $SD = 0.94$ . The second frequently used strategy is "I listen to English songs, radio programs, watch English movies, etc to increase my vocabulary" ( $M = 3.77$ ;  $SD = 1.07$ ). The third frequently used strategy with a mean slightly lower than the second highest mean is "I try to remember the Bahasa Malaysia or Chinese equivalent of the word" ( $M = 3.71$ ;  $SD = 1.11$ ). This is followed by six other strategies that had an average mean between  $M = 3.61$  to  $M = 3.68$ . This includes "I check to see if my guesses about the words are right or wrong" ( $M = 3.68$ ;  $SD = .95$ ), "I pay attention to the pronunciation of new word" ( $M = 3.64$ ;  $SD = .92$ ), "I highlight the words that seem important to me" ( $M = 3.62$ ;  $SD = 1.03$ ), "I look up new words in an English-

Bahasa Malaysia or English-Chinese dictionary" ( $M = 3.62$ ;  $SD = 1.22$ ), "I pay attention to the example of how a word is used in English" ( $M = 3.61$ ;  $SD = .90$ ) and "When I look up a word in the dictionary, I read all the meanings of new words" ( $M = 3.61$ ;  $SD = 1.10$ ).

Still significant, 12 other frequently used strategies had an average mean ranging between  $M = 3.53$ ;  $SD = .94$  and  $M = 3.04$ ;  $SD = 1.12$ . Only 8 strategies had an average mean lower than 3.00 i.e. ranging between  $M = 2.96$ ;  $SD = .77$  and  $M = 2.22$ ;  $SD = 1.17$ . The least frequently used strategy being "I carry a pocket dictionary to look up the words I don't know." ( $M = 2.22$ ;  $SD = 1.17$ )

#### 4.2.2 The most and the least frequently used categories of vocabulary learning strategies.

Table 4.2.2 shows the means and standard deviations of frequently used categories of vocabulary learning strategies by the samples selected for this study. This is listed in descending order.

**Table 4.2.2**  
**The Categories of Vocabulary Learning Strategies used in Descending Order**

Category	N	Mean	Std. Deviation
GUESSING	88	3.7443	.73498
PERCEPTION	88	3.4602	.64426
ENCODING	88	3.2750	.50951
SOURCES	88	3.2585	.60464
DICTIONARY	88	3.1420	.76074

REHEARSAL	88	3.0739	.84941
ACTIVATION	88	2.9489	.82015
MANAGEMENT	88	2.7795	.65953
Valid N (listwise)	88		

The first four most frequently used categories of vocabulary learning strategy were Guessing with an average mean  $M = 3.74$ ;  $SD = .73$ , Perception ( $M = 3.46$ ;  $SD = .64$ ), Encoding ( $M = 3.27$ ;  $SD = .50$ ) and Sources ( $M = 3.25$ ;  $SD = .60$ ). This is followed by 3 other categories which had an average mean closed to 3.00 - Dictionary ( $M = 3.14$ ;  $SD = .76$ ), Rehearsal ( $M = 3.07$ ;  $SD = .84$ ) and Activation ( $M = 2.94$ ;  $SD = .82$ ) The least used category of vocabulary learning strategy is Management which had an average mean of 2.77 and a standard deviation of .65.

**4.2.3 The differences in vocabulary learning strategies in relation to field of study, gender, self-rated English proficiency and attitude toward vocabulary learning.**

**4.2.3.1. Field of study**

The students were divided into two fields of studies. One group consists of 44 students taking Arts studies and another 44 students were taking Science studies. The Arts students were consisted of two groups – one group was taking General Knowledge, Bahasa Melayu, History, Business Studies and Muet. The other group was taking General Knowledge, Economics, Bahasa Melayu, Business Studies and MUET. The Science students were also made up of two groups; one group was taking General Knowledge, Biology, Additional Maths,

Chemistry and MUET while the other group was taking General Knowledge, Chemistry, Physics, Additional Maths and MUET. All the Science subjects were taught in English and the Science students had been using English in learning Science subjects since they were in Form One. Hence, in terms of contact hours in using English, they had more than students who were taking Arts Studies. Nevertheless, both groups (Arts and Science students) had been learning English subject in schools for more than 11 years i.e. from Primary One to Form Six.

For the purpose of comparison, two-independent samples tests (Mann-Whitney U test) was used to generate data for the analysis. Table 4.2.3.1(a) shows that there were significant differences in Vocabulary Learning strategies employed between the two fields of studies: Science Majors (English as medium of instruction for all Science subjects) and Arts Majors (BM as medium of instructions for all subjects except for MUET) with a p-value less than  $p < .05$  i.e.  $z = -2.06$  and  $p = .04$ .

**Table 4.2.3.1(a)**  
**Significant of Difference according to Fields of Study**

	Summary of strategy
Mann-Whitney U	721.000
Wilcoxon W	1711.000
Z	-2.061
Asymp. Sig. (2-tailed)	.039
a. Grouping Variable: Field_study	

On the other hand, Table 4.2.3.1(b) shows that students majoring in Arts had higher mean rank of 50.11 than students

majoring in Science who only had a mean rank of 38.89. Besides, Arts students also had higher Sum of ranks than Science Majors.

**Table 4.2.3.1(b)**  
**Mean Rank and Sum of Rank according to Fields of Study**

	Field of study	N	Mean Rank	Sum of Ranks
Summary of strategy	Arts	44	50.11	2205.00
	Science	44	38.89	1711.00
	Total	88		

Table 4.2.3.1(c) shows that students majoring in Arts had significantly higher mean rank of 50.86 than Science majors who had a mean rank of only 38.14 and this difference was significant at a  $p$ -value of  $p=.01$  for Dictionary strategy. Although insignificant, Arts majors had slightly higher mean ranks and sum of ranks than Science Majors for almost all the other categories of Vocabulary learning strategy, except for Perception strategy where Science Majors had a slightly higher mean rank

than Arts Majors i.e. 45.97 vs 43.03 but this difference was insignificant. Notably, Arts majors had insignificantly slightly higher mean ranks and sum of ranks than Science majors in six other categories of vocabulary learning strategy. For Sources, Arts majors had a mean rank of 48.78 vs 40.22, Encoding 47.93 vs 41.07, Rehearsal 47.74 vs 41.26, Guessing 47.61 vs 41.39, Management 47.78 vs 41.28 and Activation 48.55 vs 40.45.

**Table 4.2.3.1(c) Mean Rank and Sum of Rank according to Category of Vocabulary Learning Strategy based on Fields of Study**

	Field of study	N	Mean Rank	Sum of Ranks
PERCEPTION	Arts	44	43.03	1893.50
	Science	44	45.97	2022.50
	Total	88		
SOURCES	Arts	44	48.78	2146.50
	Science	44	40.22	1769.50
	Total	88		
ENCODING	Arts	44	47.93	2109.00
	Science	44	41.07	1807.00
	Total	88		
REHEARSAL	Arts	44	47.74	2100.50
	Science	44	41.26	1815.50
	Total	88		
DICTIONARY	Arts	44	50.86	2238.00
	Science	44	38.14	1678.00
	Total	88		
GUESS	Arts	44	47.61	2095.00
	Science	44	41.39	1821.00
	Total	88		
MANAGE	Arts	44	47.72	2099.50
	Science	44	41.28	1816.50
	Total	88		
ACTIVATION	Arts	44	48.55	2136.00
	Science	44	40.45	1780.00
	Total	88		

**4.2.3.2 Gender**

There were 36 male students and 52 female students. For the purpose of comparison, two-sample t-test using Mann-Whitney U test was done to identify significant differences. In Table 4.2.3.2(a), the test shows that there was a significant difference between gender and strategy use with a *p*-value less than *p*<.05 i.e. *p*=.00 and *z*=-3.67.

Asymp. Sig. (2-tailed) .000

a. Grouping Variable: Gender

**Table 4.2.3.2(a)**  
*Significant of Difference according to Gender*

Summary of strategy	
Mann-Whitney U	502.500
Wilcoxon W	1168.500
Z	-3.679

The female students had higher mean rank of 52.84 than male students who had only 32.46 in strategy use. Table 4.2.3.2(b) below shows that female students had higher mean rank in almost all the categories of strategy use. They had significantly higher frequency of strategy use than male students in Dictionary use with a mean rank of 53.47 vs 31.54, Management 51.70 vs 34.10, Sources 51.26 vs 34.74, Encoding 50.27 vs 36.17, Rehearsal 49.01 vs 37.99 and Perception 48.89 vs 38.15. However, there were no significant differences between gender and strategy use for Guessing and Activation as they showed a *p*-value of *P*=.86 and *p*=.12 respectively which were more than the significant *p*-value of *p*<.05.

**Table 4.2.3.2 (b)**  
*Frequency of Strategy use based on Category of Vocabulary Learning Strategies*

Category	Gender	N	Mean Rank	Sum of Ranks
PERCEPTION	male	36	38.15	1373.50
	female	52	48.89	2542.50
	Total	88		
SOURCES	male	36	34.74	1250.50
	female	52	51.26	2665.50
	Total	88		
ENCODING	male	36	36.17	1302.00
	female	52	50.27	2614.00
	Total	88		
REHEARSAL	male	36	37.99	1367.50
	female	52	49.01	2548.50
	Total	88		
DICTIONARY	male	36	31.54	1135.50
	female	52	53.47	2780.50
	Total	88		
GUESS	male	36	43.94	1582.00
	female	52	44.88	2334.00
	Total	88		
MANAGE	male	36	34.10	1227.50
	female	52	51.70	2688.50
	Total	88		
ACTIVATION	male	36	39.50	1422.00
	female	52	47.96	2494.00
	Total	88		

**4.2.3.3 Self-Rated English Fluency**

A majority of the students rated their English proficiency as average. Only 5 students rated their English proficiency as poor and only 7 students rated it as above average. Comparison of

means of these two groups of proficiency levels was done using Two- independent samples *t*-test (Mann-Whitney U Test).

**Table 4.2.3.3**  
**Significant Difference between the Poor and Above**  
**Average English Proficiency Students.**

Summary of strategy	
Mann-Whitney U	10.500
Wilcoxon W	25.500
Z	-1.139
Asymp. Sig. (2-tailed)	.255
Exact Sig. [2*(1-tailed Sig.)]	.268 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: English proficiency

Table 4.2.3.3 above shows that there was no significant difference in Vocabulary learning strategy between the poor and above average English Proficiency students. Although the z-value was significant, the p-value was taken for this comparison due to the small number of samples i.e. n1 = 5; n2 = 7. There was no statistical significant as p-value was more than  $p < .05$  i.e.  $p = .25$ .

**4.2.3.4 Attitude toward vocabulary learning.**

Analysing the data obtained from the respondents, it was discovered that only one of them had negative attitude toward vocabulary learning i.e. “I hate it”. A majority of 52 respondents had neutral attitude that was neither like nor dislike vocabulary

learning and 29 respondents had a positive attitude i.e “Like it” and 6 respondents rated their attitude as “Like it very much”. Since only one respondent had negative attitude, comparison could not be done between respondents with negative attitude and positive attitude. Hence, evaluation was done between respondents with neutral attitude and positive attitude towards vocabulary learning.

In order to evaluate the relationship between attitude toward vocabulary learning and strategy use by the samples under study, a Spearman’s rho correlation coefficient was generated between the attitude rating and frequency of strategy use. The results, as indicated in Table 4.2.3.4(a) shows that there was a moderate positive correlation of  $r = .539$  and p-value of  $p = .00$ .

**Table 4.2.3.4(a)**  
**The Correlation Coefficient between Attitudes toward Vocabulary Learning.**

			Summary of strategy	Attitude
Spearman's rho	Summary strategy	of Correlation Coefficient	1.000	.539**
		Sig. (2-tailed)	.	.000
		N	88	88
Attitude towards vocabulary	Correlation Coefficient	Sig. (2-tailed)	.539**	1.000
		Sig. (2-tailed)	.000	.
		N	88	88

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

To evaluate the relationship between attitude toward vocabulary learning and categories of strategy use, a two-independent t-test (Mann-Whitney U test) was computed. Table 4.2.3.4(b) shows that the respondents with a positive attitude (4 “I like it”) had significantly higher use of strategies than those with a neutral attitude (3 “Neutral”) in almost all the categories

except for guessing. They showed higher mean ranks in Perception (49.31 vs 36.37), Sources (53.21 vs 34.19), Encoding (49.78 vs 36.11), Rehearsal (52.57 vs 34.55), Dictionary (51.26 vs 35.26), Management (49.83 vs 36.08) and Activation (52.95 vs 34.34).

**Table 4.2.3.4(b)**  
**Mean Rank and Sum Rank for Category of Vocabulary Learning Strategies by Attitude**

	Attitude	N	Mean Rank	Sum of Ranks
PERCEPTION	Neutral	52	36.37	1891.00
	I like it	29	49.31	1430.00
	Total	81		
SOURCES	Neutral	52	34.19	1778.00
	I like it	29	53.21	1543.00
	Total	81		
ENCODING	Neutral	52	36.11	1877.50
	I like it	29	49.78	1443.50
	Total	81		
REHEARSAL	Neutral	52	34.55	1796.50
	I like it	29	52.57	1524.50
	Total	81		
DICTIONARY	Neutral	52	35.28	1834.50
	I like it	29	51.26	1486.50
	Total	81		
GUESS	Neutral	52	41.09	2136.50
	I like it	29	40.84	1184.50
	Total	81		
MANAGE	Neutral	52	36.08	1876.00
	I like it	29	49.83	1445.00
	Total	81		
ACTIVATION	Neutral	52	34.34	1785.50
	I like it	29	52.95	1535.50
	Total	81		

**4.2.4. The vocabulary learning strategies employed in relation to students' perceptions of problems in vocabulary learning.**

In order to find out about the problems faced by the Form 6 students in vocabulary learning, the respondents in this study were asked to rate the problems they faced in a five-point interval scale. The scales ranged from 1 ("not a problem"), 2

("Quite a problem"), 3 ("Neutral"), 4 ("a problem") and 5 ("a major problem"). Table 4.4(a) shows an overall medium rating of the five problems with a mean of  $M=2.88$  and a standard deviation of  $SD=.82$ .

**Table 4.2.4(a)**  
**Overall Perception of Problems**

	N	Mean	Std. Deviation
Summary of 88 problems		2.8864	.82031
Valid N (listwise)	88		

**Table 4.2.4(b)**  
**Perceptions of Problems**

	N	Mean	Std. Deviation
I cannot handle multiple meanings of words.	88	2.9886	1.03384
I forget words I've learned.	88	2.9773	1.08254
I cannot use words properly.	88	2.9318	1.11206
I have difficulties increasing my vocabulary.	88	2.9091	1.05739
I cannot remember new words.	88	2.6250	1.04290
Valid N (listwise)	88		

Table 4.2.4(b) shows the ratings of the problems in descending order based on their means. This can be presented as follows: "I cannot handle multiple meanings of words" ( $M = 2.99$ ;  $SD = 1.03$ ), "I forget words I have learnt" ( $M=2.98$ ;  $SD =$

1.08), "I cannot use words properly" ( $M = 2.93$ ;  $SD = 1.11$ ), "I have difficulties increasing my vocabulary" ( $M = 2.90$ ;  $SD = 1.05$ ) and "I cannot remember new words" ( $M = 2.62$ ;  $SD = 1.04$ )

**Table 4.2.4(c)**  
**Correlation Coefficient between Perception of Problems and Strategy use**

			Summary of strategy	of Summary of problem
Spearman's rho	Summary of strategy	Correlation Coefficient	1.000	-.158
		Sig. (2-tailed)	.	.141
		N	88	88
	Summary of problem	Correlation Coefficient	-.158	1.000
		Sig. (2-tailed)	.141	.
		N	88	88

Table 4.2.4(c) above shows that there is no correlation between students' perception of problems and strategy use with a very low negative correlation coefficient of  $r = -0.15$  and the relationship was insignificant with a  $p$ -value = .14. This signifies that students' perceptions of problems on vocabulary learning had very little or no effect on their strategy use. Taking a closer look, Table 4.2.4(d) shows that almost all the students' perceptions of problems had no correlation with the students' vocabulary learning strategy use except for problem no.4 "I

cannot handle multiple meanings of words" with a correlation coefficient of  $r = .04$  but it was insignificant with a  $p$ -value = .71. There were no correlations and statistical significant of relationships between students' perceptions of problems and strategy use in the following: "I have difficulties increasing my vocabulary" ( $r = -0.10$ ;  $p = .35$ ), "I forget words I've learned" ( $r = -0.02$ ;  $p = .84$ ), "I cannot use words properly" ( $r = -0.15$ ;  $p = .15$ ) and "I cannot remember new words" ( $r = -0.28$ ;  $p = .00$ ).

**Table 4.2.4(d)**  
**The Correlation Coefficient between Students' perceptions of Problems and Strategy use**

	Summary of strategy	Correlation Coefficient	Summary of strategy
Spearman's rho	Summary of strategy	1.000	
		Sig. (2-tailed)	.
		N	88
	I have difficulties increasing my vocabulary.	Correlation Coefficient	-.100
		Sig. (2-tailed)	.354
		N	88
	I forget words I've learned.	Correlation Coefficient	-.021
		Sig. (2-tailed)	.843
		N	88
	I cannot use words properly.	Correlation Coefficient	-.151
		Sig. (2-tailed)	.159
		N	88
	I cannot handle multiple meanings of words.	Correlation Coefficient	.040
		Sig. (2-tailed)	.714
		N	88
	I cannot remember new words.	Correlation Coefficient	-.283**
		Sig. (2-tailed)	.007
		N	88

**4.3. Discussion**

**1.3.1. The vocabulary learning strategy pattern of Form Six students.**

The results of the study showed that the Form Six students chosen as samples for this study had a moderate frequency of strategy use in their efforts to learn new vocabulary. They demonstrated a peculiar pattern in vocabulary learning by employing more frequently strategies that were related to incidental vocabulary learning.

Comparison in terms of category showed that guessing strategy as the most frequently used category of strategy, followed by perception and encoding strategies and management strategy as the least. This finding is in contrary with the findings by Gu & Johnson (1996) and Ming (2007) who found that activation strategy as the least whereby Ming (2007) carried out a study with College-level learners of English in China. This portrayed that the respondents of the present study preferred to learn new vocabulary through indirect study or incidental learning. In short, they preferred to learn vocabulary using contextualization as they guessed the meanings of new vocabulary according to how they were used in context. This ascertained the finding by Cohen & Aphek (1981) that contextualization strategies work better for learners who already

possess a fair level of L2 knowledge. Having learnt English for 11 or 12 years, the students to a certain extent had acquired the skill of contextualization in giving or finding for meanings of new vocabulary. Moreover, they had learnt this skill in MUET (Malaysian University English Test) class i.e. using contextual clues to guess meanings of new words. In this skill, they can guess the meaning of new words according to how they are used in contexts.

Thus, this study also revealed that the students had acquired the skill of learning new words as used in context as learnt in their MUET lesson. Besides, it also showed that the students had selected the most important source of vocabulary learning as Nation (2005) stated that incidental learning through guessing from context was the most important of all sources of vocabulary learning particularly for native speakers and also true for second language learners. Nevertheless, these Form Six students did not solely depend on guessing strategy in their vocabulary learning because they also employed other strategies which were also given considerable emphasis. This is ascertained as the difference in the mean of guessing strategy and other strategies was very small. Nation (2005) also argued that incidental and direct intentional learning and teaching of vocabulary should be taken as complementary activities as each one enhancing the learning that comes from the other.



Hence, the results also showed that the Form Six students still paid attention to word formation such as its pronunciation, grammatical patterns, example of how the words is used in English and by paying attention to the unfamiliar usage of a known word which are categorised under Perception strategy which was the second most frequently used strategy. Encoding strategy was another strategy that was also given a fair emphasis after Perception strategy in the students' efforts to learn new words. This strategy includes trying to remember the Bahasa Malaysia (BM) or Chinese equivalent of the new word, trying to remember the sentence in which the word is used to remember it, associating new words with those already known and distinguishing words with similar meanings, analyzing the structure of a word to remember it. Obviously this pattern in students' vocabulary learning portrayed that they were making considerable efforts to learn new English vocabulary to build up their vocabulary size partly to improve their comprehension and production which are vital to do well in MUET exam. Production which is termed as 'encoding' by Nation (2001) is required by learners to function in a language such as to speak, write or translate.

Comparing individual vocabulary learning strategy use, it was revealed that they had the highest mean for the category of guessing "I guess the meaning of words I don't know" ( $M=3.80$ ;  $SD=0.94$ ). The second frequently used strategy was "I listen to English songs, radio programs, watch English movies, etc to increase my vocabulary" ( $M = 3.77$ ;  $SD = 1.07$ ). This was also in contrast with previous finding by Ming (2007) who found that learners were less likely to use extracurricular sources (such as listening to English songs, radio programs, watching English movies, reading stories, magazines, etc). Surprisingly, listening to extracurricular sources became the second most frequently used strategy by Form Six students of the present study. This shows that the students are very much influenced by their MUET Listening lessons as they are usually given listening exercises which are made up of different types of listening texts. MUET teachers usually encouraged their students to listen to variety of extracurricular sources to sharpen their listening skill in order to do well in their MUET Listening paper. The third frequently used strategy with a mean slightly lower than the second highest mean is "I try to remember the Bahasa Malaysia or Chinese equivalent of the word" ( $M = 3.71$ ;  $SD = 1.11$ ). This revealed that the Form Six students of the present study paid particular emphasis to remember the translation of the words learnt in their first language i.e. either in BM or Chinese. Hence, denoting that translation is still a beneficial technique used in learning vocabulary and it is proven effective especially for better comprehension. Hayati & Mohammadi (2009) in their study on task-based instruction vs. translation method in teaching vocabulary among Iranian secondary school students found that using translation in a communicative framework enhanced vocabulary learning at deeper levels of cognitive processing leading to deeper vocabulary gains for unknown words. They contended that their findings showed the use of translation as a cognitive strategy to help learners make effective cross-lingual comparisons at different stages of language learning to comprehend, to remember, and even produce target language.

This is followed by six other strategies that had an average mean of between  $M=3.61$  to  $M=3.68$  which was still significant

as they demonstrated an average frequency of sub-strategy use. This includes "I check to see if my guesses about the words are right or wrong" ( $M = 3.68$ ;  $SD = .95$ ), "I pay attention to the pronunciation of new word" ( $M = 3.64$ ;  $SD = .92$ ), "I highlight the words that seem important to me" ( $M = 3.62$ ;  $SD = 1.03$ ), "I look up new words in an English-Bahasa Malaysia or English-Chinese dictionary" ( $M = 3.62$ ;  $SD = 1.22$ ), "I pay attention to the example of how a word is used in English" ( $M = 3.61$ ;  $SD = .90$ ) and "When I look up a word in the dictionary, I read all the meanings of new words" ( $M = 3.61$ ;  $SD = 1.10$ ). Eleven other sub-strategies were employed by these students with an average mean of between  $M=3.04$  and  $M=3.53$  and only eight sub-strategies attracted students with an average mean of between  $M=2.22$  and  $M=2.96$ . These eight sub-strategies consisted of mainly Management strategy showing that the students did not frequently employ this strategy in their vocabulary learning. This is probably because they used guessing strategy, perception and encoding strategies more frequently as discussed earlier. Furthermore, using management strategy would require students to spend a considerable amount of time for managing their vocabulary learning such as jotting down new words that they want to learn, reviewing and making plans for their vocabulary learning, etc. which can be very tedious.

Interestingly, quite a significant contrast also could be seen between "I look up new words in an English-Bahasa Malaysia or English-Chinese dictionary" ( $M = 3.62$ ;  $SD = 1.22$ ), and "I look up new words in an English-English dictionary" ( $M=3.10$ ;  $SD=1.24$ ) implying that the Form Six students preferred to use a bilingual dictionary than a monolingual dictionary. This also implies that the students were more inclined to think in their first language i.e. either BM or Chinese than in the target language. This reconfirms the results of previous findings by Gu & Johnson (1996), Fan (2003) and Ming (2007). Surprisingly, the sample students did not seem to prefer reading as their popular source of learning new vocabulary. It was found that reading outside class hours, "I read stories, magazines etc outside class to increase my vocabulary (SOU)" was the 14<sup>th</sup> frequently used strategy with a mean of  $M=3.15$ ;  $SD = 1.13$ .

### 1.3.2. Vocabulary Learning Strategies in relation to field of study.

Although there was a significant difference between students majoring in Science (English as the medium of instruction for all Science subjects) and students majoring in Arts (BM as the medium of instruction for all Arts subjects except for MUET), the results of the study did not correlate with the findings in previous studies. Chiang (2004) and Ming (2007) found that the English majors generally exceeded non-English majors in their overall frequency of vocabulary learning strategy use. In contrast, in the present study the Arts majors who used BM as their medium of instructions for their Arts subjects had higher frequency of vocabulary learning strategy use than Science majors who used English for all their Science subjects as they had a mean rank of 50.11 while the latter only had 38.89. However, Arts majors had significantly higher mean ranks and sum of ranks than Science majors only in Dictionary use with a significant  $p$ -value of  $p=.01$  while in seven other categories of vocabulary learning strategy namely Sources, Activation,

Encoding, Rehearsal, Management, Guessing and Perception, the differences were insignificant.

Science majors only had a slightly higher frequency of VL strategy use in Perception strategy than Arts majors with a mean rank of 45.97 than 43.03 for the latter but this difference was insignificant as it had a  $p$ -value of  $p=.58$ . Specifically, this group of students (Science students) preferred learning new vocabulary more by paying attention to the pronunciation of new word, unfamiliar usage of a known word and the grammatical pattern of a new word with mean ranks of 47.60, 47.15 and 45.66 respectively versus 41.40, 41.85 and 43.34 respectively for Arts majors. Besides, they also frequently used (See Table 1 in Appendices) "I analyse the structure (root and affix) of a word to remember it (e.g. in-formal, color-less, etc) that had a high mean rank of 45.78 as compared to 43.22 for Arts majors. This implies that they learnt new words in the target language by frequently focusing more on the word-formation or form than using other strategies such as dictionary use which constituted a mean rank of only 38.14 as compared to Arts majors who have 50.86. The rationale of employing this strategy according to Mohseni-Far (2008) is because knowledge of lexical roots (etymological information and morphological origins), for instance, can assist in vocabulary development in that it helps learners predict or guess what a word means, explains why a word is spelt the way it is, and remember the word by knowing how its current meaning develops from its morphological roots.

Significantly, as stated earlier, Arts majors had the highest mean rank in Dictionary strategy use i.e. about 50.86 as compared to Science majors with a mean rank of only 38.14. Hence, Arts majors use dictionary more frequently than Science majors when learning new words in the target language. Specifically, they preferred to use bilingual dictionary (I look up new word in an English-BM or English-Chinese dictionary) more frequently than Science majors with a mean rank of 50.89 as compared to only 38.11 for the latter (See Table 1 in Appendices). This wide difference in the mean ranks between the two groups of students also revealed that Arts majors were more inclined to think in BM when learning new words. Nevertheless, the Arts majors still showed a slightly higher mean rank in the use of monolingual dictionary or English-English dictionary (I look up new words in English-English dictionary) with a mean rank of 46.61 than 42.39 for Science majors. Considerably, they (Arts majors) also had a slightly higher mean rank of about 46.19 in "I carry a pocket dictionary to look up new words I don't know" than Science majors who have 42.81. An obvious significant difference could be seen between the two majors in "When I look up a word in the dictionary, I read all the meanings of new words" where Arts majors had a mean rank of 49.80 whereas Science majors had a mean rank of 39.20 (See Table 1 in Appendices).

There are three types of dictionaries: bilingual, monolingual and bilingualized and can be found in either paper or electronic form. Using dictionaries i.e. either bilingual or monolingual, has its own strengths and weaknesses in building students' vocabulary knowledge. Hunt, Beglar (2005) as cited in Mohseni-Far (2008) contended that bilingual dictionaries have short and easy to understand definitions and they can be used to improve the reading comprehension of lower proficiency L2 learners and assist vocabulary learning at all levels of proficiency.

All this suggests that this group of students really made considerable efforts to learn new words in the target language by frequently using their dictionary. This is probably because they needed to build up their vocabulary since they were taking MUET at STPM level. As compared with the Science majors, they (Arts majors) had less contact hours in the target language in their present academic years since they were using BM as their medium of instruction for all their STPM subjects except for MUET. Thus, they needed to put in considerable efforts to learn new words in order to improve their English and scored good band for their MUET.

### 1.3.3. Vocabulary learning strategies by gender

A significant difference was discovered between vocabulary learning strategy use and gender. This finding did not correlate with the finding by Zhang (2009) who found that there were only slight differences between male and female subjects' perspective and Strategy use of vocabulary learning in his study among undergraduate English majors in Western China. Nevertheless, this finding correlated with the findings by Oxford, Nyikos & Ehman (1988) as cited in Zhang (2009) that the use of learning strategies significantly correlates with gender and they found that the females were generally more skillful than males at using learning strategies. This is ascertained by the present study as the females outperformed the males in frequency of strategy use.

The present study revealed that female students had higher use of learning strategy than male students as female students had higher mean rank of 52.84 than male students who had only 32.46 in strategy use. Significantly, it was ascertained that female students had better frequency of strategy use in vocabulary learning as they had higher mean rank in almost all the categories of strategy use. They had significantly higher frequency of strategy use than male students in Dictionary use with a mean rank of 53.47 vs 31.54, Management 51.70 vs 34.10, Sources 51.26 vs 34.74, Encoding 50.27 vs 36.17, Rehearsal 49.01 vs 37.99 and Perception 48.89 vs 38.15. However, there were no significant differences between gender and strategy use for Guessing and Activation as they showed  $p$ -value of  $P=.86$  and  $p=.12$  respectively which were more than the significant  $p$ -value of  $p<.05$  (See Table 2 in Appendices). The result of the present study seemed to show that the females organized their vocabulary learning better than the males as they had higher frequency of use in Dictionary use, Management, Sources, Encoding, Rehearsal and Perception strategy. Nation (2005) said that learners who organized their vocabulary learning made better progress than those who did not. Through the researcher's observation as an English and MUET teacher, it was discovered that the females were better language users as they usually outperformed their male counterparts in writing, speaking, listening and reading in school assessments or exams.

Looking at the significant differences between the two gender in terms of frequency of sub-strategy use (See Table 2 and Table 3 in Appendices), it was found that the females had higher frequency of use in "I highlight the words that seem important to me (MAN)" with a mean rank of 52.13 than 33.49 for males and a  $p$ -value of  $p<.05$ . Secondly, the female students also showed higher frequency of use for "I carry a pocket dictionary to look up a word I don't know (DIC)" with a mean rank of 51.06 than 35.03 for males and a significant difference of

$p = .003$ . Closely to this, with a significant difference of  $p = 0.005$ , the females also outperformed the males in "When I look up a word in the dictionary, I read all the meanings of new words (DIC)" with a mean rank of 50.68 vs 35.57 for males. Besides, the females also showed a higher mean rank of 50.92 in "I keep a vocabulary notebook to jot down new words I want to learn (MAN)" than 35.22 for males with a significant difference of  $p = 0.003$ . Still significant, the females also outperformed the males in "When I come across a new word, I make a note of it (SOU)" with a mean rank of 50.48 than 35.86 and a significant  $p$ -value of  $p = 0.005$ . From this finding, it was learnt that the female respondents used a lot of direct intentional study in their attempt to acquire new vocabulary as they carefully planned their vocabulary learning by highlighting important words, looking up for meanings of words in a dictionary, jotting new words in a vocabulary notebook, etc. The male respondents only showed a higher mean rank of 49.21 in "I guess the meaning of words I don't know (GUE)" than females who have 41.24 but this difference was insignificant as it had a  $P$ -value of  $p = 0.13$ .

Both gender used textbook as an important resource for them to learn new words as they had almost similar mean rank of 42.8 for males and 45.7 for females for the strategy "I use textbook to learn new words (SOU)". This revealed that the use of textbook for MUET lessons was still beneficial as teachers usually highlighted to students new words in a particular text and discussed the meanings or asked students to give the meanings according to context. Next, they also both showed almost similar mean rank for "I make up my own sentences using the words I just learn (ACT)" with a mean rank of 42.15 and 46.13 respectively. Making sentences using the newly learnt words is vital as it can help to ensure better comprehension and retention. They also both paid attention to the pronunciation of new words (PER) with a mean rank of 41.50 and 46.58 and paid attention to the grammatical patterns of a new word with a mean rank of 41.97 and 46.25 for male and female respectively. All these learning strategies are related to the learning experiences they experienced in a MUET class. It is also significant to note here about the important role played by their first language namely Bahasa Malaysia (BM) and Chinese. The result of the study relating to this showed that both genders paid particular importance to "I try to remember the Chinese or BM equivalent of the words" (ENC) with a mean rank of 41.31 and 46.71 and "I group word in my own way to remember them" (MAN) with a mean rank of 41.83 and 46.35 for males and females respectively.

### 1.3.4. Vocabulary use by self-rated English proficiency

As a majority of the students rated their English proficiency as average, comparison could not be done in depth as only 5 students rated their English proficiency as poor and only 7 students rated it as above average. Nevertheless, there was no significant difference in Vocabulary learning strategy between the poor ( $n = 5$ ) and above average ( $n = 7$ ) English Proficiency students. Although the  $z$ -value was significant, the  $p$ -value was taken for this comparison due to the small number of samples that was  $n_1 = 5$ ;  $n_2 = 7$ . There was no statistical significant as  $p$ -value was more than  $p < .05$  i.e.  $p = .26$ . Thus, the vocabulary learning strategy patterns of these two groups of students could not be identified in this study. Besides, comparison with other

research studies could not be done. But, interestingly, almost all the samples for this study rated their English proficiency as average showing that they had an average level of proficiency in the target language.

### 1.3.5. Attitude towards Vocabulary Learning.

Apparently, a majority of the samples taken for this study had an undecided attitude towards vocabulary learning as 52 of them rated a "neutral" attitude i.e. neither like nor dislike vocabulary learning. As only one student rated a dislike towards vocabulary learning, comparison could not be done between those who liked and those who disliked. Therefore, comparison was done between those students who had neutral attitude and those who liked vocabulary learning. The results indicated that there was a moderate positive correlation of  $r = .539$  and  $p$ -value = 0.000.

The two-independent  $t$ -test (Mann-Whitney U test) shows that the respondents with a positive attitude (4 "I like it") had significantly higher use of strategies than those with a neutral attitude (3 "Neutral") in almost all the categories except for guessing where those who had a neutral attitude had a slightly higher frequency of use with a mean rank of 41.09 than 40.84 for students with positive attitude. The results of the study showed that students who had positive attitude had the highest mean rank in Sources (53.21 vs 34.19) revealing that they frequently used strategies that involved reading, listening and watching. This is followed by Activation (52.95 vs 34.34), Rehearsal (52.57 vs 34.55), Dictionary use (51.26 vs 35.26), Management (49.83 vs 36.08) and Encoding (49.78 vs 36.11) and Perception (49.31 vs 36.37) strategies. This correlated with studies by previous researchers such as Ming (2007) who found that students with a positive attitude expressed a frequent use in all categories and that learner attitude directly affected the learning process.

The high number of about 52 respondents who classified their attitude as 'neutral' toward vocabulary learning portrayed that many of the Form Six students under study were not sure about the need to take positive efforts to improve their vocabulary learning. This is ascertained as this group of students preferred to use guessing strategy and used less frequently the sources strategy which required them to read English resources such as stories, magazines, etc outside class, listening to English songs, radio programs and watching to English movies. Obviously, they were lacking in the necessary inputs to increase their vocabulary compared to respondents who had a positive attitude. Wen & Johnson (1997) as cited in Critchley (1998) found that while all learners consistently used guessing as a strategy, the high achievers tended to guess according to the reading context. Notably, when reading for pleasure, high achievers often guessed word meaning without referring a dictionary but during intensive reading, guesses "were consistently checked against the dictionary" (Wen & Johnson, 1997, p. 37). On the other hand, lower level readers tended to depend more heavily on guessing from context in every situation. These findings were supported by qualitative results which showed that the highest achievers were those most skeptical of guessing strategies, as opposed to low achievers, who approved strongly to guessing in all contexts (Critchley, 1998).

The result of previous study by Ming (2007) is also repeated as it was discovered that students with a negative (in the present

study: neutral attitude) attitude also showed a significantly low use of Activation and dictionary use. Hence, this reveals that students with negative attitude did not really make efforts to learn the new words that they came across in reading compared to students who had positive attitude. Knight (1994) as cited in Gu (2003) discovered that students who used a dictionary as well as guessed through context learned more words immediately after reading and also remembered more after two weeks. Besides, she also discovered that low verbal ability participants benefited more from the dictionary and contextual guessing than high verbal ability participants. Significantly, another finding by Knight was in line with Hulstijn (1993) who found that high verbal ability students would look up a word even if they had successfully guessed its meaning (Gu, 2003).

### 1.3.6. Vocabulary learning strategy use in relation to students' perceptions of problems.

Consistent with previous study by Ming (2007), the respondents of the present study showed an overall medium rating of perceptions of problem in vocabulary learning. They rated all the problems with almost similar means. In contrast with Ming's (2007) study who found that the Chinese learners had problem in increasing their vocabulary, in the present study respondents rated "I cannot handle multiple meanings of words" as the biggest problem. This reflects the need of these Form Six students to have more practice in using the new vocabulary learnt in context to enable them to understand the differences in meaning of this word. This also shows the dire need for them to use dictionary to see differences in meanings either using monolingual or bilingual dictionary. With slightly lower mean, this is followed by "I forget words I have learnt", "I cannot use words properly", "I have difficulties increasing my vocabulary" and "I cannot remember new words". These problems in vocabulary learning still need to be addressed although they did not directly affect their frequency of vocabulary strategy use. Nevertheless, in contrast with findings by previous researchers such as Ming (2007), the present study shows that there was no correlation between students' perception of problems and strategy use. Thus, students' perceptions of problems on vocabulary learning had very little or no effect on their strategy use. In other words, there was no significant relationship between students' perceptions of problems on vocabulary learning strategy use. Taking a closer look, almost all the students' perceptions of problems had no correlation with the students' vocabulary learning strategy use except for problem no.4 "I cannot handle multiple meanings of words" with a correlation coefficient of  $r = .04$  but it was insignificant with a  $p$ -value = .71. In short, there were no correlations and statistical significant of relationships between students' perceptions of problems and strategy use in the following: "I have difficulties increasing my vocabulary" ( $r = -0.10$ ;  $p = .35$ ), "I forget words I've learned" ( $r = -0.02$ ;  $p = .84$ ), "I cannot use words properly" ( $r = -0.15$ ;  $p = .16$ ) and "I cannot remember new words" ( $r = -0.28$ ;  $p = .00$ ). Hence, students' perception of problems did not hinder students from learning new vocabulary.

## 5. Summary of findings

The results of this study revealed that the respondents chosen for this study had a medium frequency of vocabulary

learning strategy use employing both intentional and incidental strategies of vocabulary learning. Apparently, their overall pattern of strategy use was very much influenced by the reading skills that they had learnt in their MUET lessons. Guessing strategy for instance is related to using contextual clues when giving meanings of new words which involved guessing those meanings based on how the words are used in context. Besides, they also frequently learnt new vocabulary by paying attention to the formation of the new words such as their pronunciation, grammatical patterns, etc. Dictionary use also became an important strategy in students' efforts to learn new words especially using bilingual dictionary. Significantly, there was a significant difference of strategy use between the two fields of studies – Arts and Science majors whereby Arts majors who used BM as their medium of instruction for all subjects except for MUET had higher frequency of strategy use than Science majors. However, there was no significant difference in frequency of strategy use in terms of self-rated English proficiency. This could not be done in depth due to the small samples and as a result the pattern of relationship between the poor proficiency group and above average group could not be established. Nevertheless, comparison in terms of attitude towards vocabulary learning showed that the positive respondents had higher frequency of strategy use than the students with neutral attitude. Surprisingly, students' perceptions of problems in vocabulary learning did not have any significant effects on student frequency of strategy use.

## V. CONCLUSION

The results of this present study leave some pedagogical implications that are beneficial for Form Six (Pre-university) curriculum. MUET teachers teaching Form Six students should continue to help these students build their vocabulary by exposing them to varieties of reading materials which require students to do inferring or learning words from context. Mohseni-Far (2008) contended that the vast majority of words learned in L1 result from extensive and manifold exposures rather than direct instruction, therefore successful vocabulary learning in a L2 should proceed in the same way. He also assured that reading is one of the most important ways that learners gain lexical knowledge incidentally and thus, concentration on meaning-focused reading will result in incremental increases in vocabulary size, the elaboration of lexical knowledge and development of reading fluency.

Despite the importance of learning words from context, teachers should not neglect the use of direct intentional study such as the use of dictionary and other strategies to build up vocabulary knowledge. Nation (2005) argued that although learning vocabulary from context appeared to be largely incidental learning, a deliberate, intentional focus on developing the skills and strategies needed to carry out such learning is required. He also reiterated that because of the importance of guessing from context, it is worthwhile for both teachers and learners to spend time working on guessing strategies. Fraser (1999) as cited in Nation (2005) found that more vocabulary was retained from inferring from context (in this study termed as contextualization) when: it was followed up by consulting a dictionary and first language based word identification was used that is, the learners retrieved an L1 synonym for the unknown

word. As cited in Shostak (2002) that researchers agree that although reading is indeed important, to achieve deeper, richer levels of lasting vocabulary understanding, direct instruction is more effective and more efficient than incidental learning (McKeown & Beck, 1988). Planned vocabulary instruction in specific words is what is needed, including specialized vocabulary instruction in the content areas (Baker, Simmons, and Kameenui, 1995b).

Notably, as recommendation for future studies, future researchers interested in doing similar study can employ bigger

samples and more defined dependent variables. Besides, other methods of data collection can be employed such as interviews and observations to obtain more detailed and reliable data concerning respondents' pattern of vocabulary learning strategy use to obtain more thorough and conclusive study. Despite the limitations underlying this exploratory research, its findings leave some significance understanding and knowledge about the pattern of vocabulary learning strategies of pre-university students that may bring new impetus for future research studies.

Appendix 1

**Questionnaire**

Vocabulary learning strategies employed by the Form 6 students

Researcher

FRANKIE SUBON

MARA UNIVERSITY OF TECHNOLOGY

KOTA SAMARAHAN

SARAWAK

Dear respondent,

This survey is carried out to examine vocabulary learning strategies of the Form 6 students of SMK Sungai Tapang, Samarahan. Your kind co-operation in responding to this questionnaire sincerely is very much appreciated. All the information given will be kept confidential.

**Section A: Vocabulary Learning strategies**

Rate the following vocabulary learning strategies that you use to learn new words according to the frequency scales below. Circle the number in the box for your choice.

1 - Never    2 – Rarely    3 – Sometimes    4 - Very often    5 - Always

	Vocabulary learning strategies	1	2	3	4	5
1	I pay attention to the pronunciation of a new word.	1	2	3	4	5
2	I use my textbook to learn new words.	1	2	3	4	5
3	I try to remember the sentence in which the word is used to remember the word.	1	2	3	4	5
4	I repeat a new word out loud several times to remember it.	1	2	3	4	5
5	I pay attention to the examples of how a word is used in					

	English.	1	2	3	4	5
6	I carry a pocket dictionary (including an electronic dictionary) to look up the words I don't know.	1	2	3	4	5
7	I pay attention to the grammatical patterns (e.g. parts of speech, countable/uncountable) of a new word.	1	2	3	4	5
8	I analyze the structure (root and affix) of a new word to remember it (e.g. in-formal, color-less).	1	2	3	4	5
9	I associate new words with those I already know.	1	2	3	4	5
10	I guess the meaning of words I don't know.	1	2	3	4	5
11	I pay attention to the unfamiliar usage of a known word.	1	2	3	4	5
12	I highlight the words that seem important to me.	1	2	3	4	5
13	When I look up a word in the dictionary, I read all the meanings of new words.	1	2	3	4	5
14	I check to see if my guesses about the words are right or wrong.	1	2	3	4	5
15	I look up new words in an English-Chinese dictionary.	1	2	3	4	5
16	I try to remember the Chinese equivalent of the word.	1	2	3	4	5
17	I distinguish words with similar meanings.	1	2	3	4	5
18	I listen to English songs, radio programs, watch English movies etc. to increase my vocabulary.	1	2	3	4	5
19	I read stories, magazines etc. outside class to increase my vocabulary.	1	2	3	4	5
20	I use the newly-learned words as much as possible in speaking and writing.	1	2	3	4	5
21	When I come across a new word, I make a note of it.	1	2	3	4	5
22	I review my vocabulary regularly.	1	2	3	4	5
23	I make plans for my vocabulary learning.	1	2	3	4	5
24	I make up my own sentences using the words I just learnt.	1	2	3	4	5
25	I group words in my own way to remember them.	1	2	3	4	5
26	I keep a vocabulary notebook to jot down new words I want to learn.	1	2	3	4	5
27	I look up new words in an English-English dictionary.	1	2	3	4	5
28	I repeatedly visualize the new word to remember it.	1	2	3	4	5

**Section B/Bahagian B (Demographic)**

Tick  the boxes and fill in the blanks with the required information.

- 1. Race
- Malay
- Iban
- Bidayuh


Chinese  
Others (Please state): .....

2. Gender

Male

Female

3. Age: .....years/tahun

4. The class you are in now: Form .....

5. The most preferred hobby.

Watching television.

Surfing the internet

Reading

Gardening

Fishing

Others (Please state)

.....

6. Rate your proficiency in English by making a X in the box

Excellent

Above average

Average

Below average

Poor

7. Rate your attitude towards vocabulary learning by making a X in the box provided.

1. I don't like it

2. I hate it

3. Neutral

4. I like it

5. I like it very much

8. Rate your perceptions of problems in vocabulary learning according to the following rating. Mark a X in the box provided.

1 - Not a problem

2 - Quite a problem

- 3 - Neutral
- 4 - A problem
- 5 - A major problem

	Problems	1	2	3	4	5
a	I have difficulties increasing my vocabulary					
b	I forget words I've learned					
c	I cannot use words properly					
d	I cannot handle multiple meanings of words					
e	I cannot remember new words.					

THANK YOU

Appendix 2



**Table 1**  
**Mean Rank and Sum Rank according to Field of study**

	Field_study	N	Mean Rank	Sum of Rank
I pay attention to the pron of new word (PER)	Arts	44	41.40	1821.50
	Science	44	47.60	2094.50
	Total	88		
I use textbook to lern new words (SOU)	Arts	44	46.19	2032.50
	Science	44	42.81	1883.50
	Total	88		
I try to remember the sentence in which the word is used to remember it (ENC)	Arts	44	46.84	2061.00
	Science	44	42.16	1855.00
	Total	88		
I repeat a new word out loud several times to remember it (REH)	Arts	44	46.86	2062.00
	Science	44	42.14	1854.00
	Total	88		
I pay attentn to the eg of how a word is used in English (PER)	Arts	44	47.97	2110.50
	Science	44	41.03	1805.50
	Total	88		
I carry a pocket dic to look up the words I don't know (DIC)	Arts	44	46.19	2032.50
	Science	44	42.81	1883.50
	Total	88		
I pay attention to the grammatical patterns of a new word (PER)	Arts	44	43.34	1907.00
	Science	44	45.66	2009.00
	Total	88		
I analyse the structure of a word to remember it.(ENC)	Arts	44	43.22	1901.50
	Science	44	45.78	2014.50
	Total	88		
I associate new words with those I already know (ENC)	Arts	44	47.38	2084.50
	Science	44	41.63	1831.50
	Total	88		
I guess the meaning of words I don't know (GUE)	Arts	44	43.33	1906.50
	Science	44	45.67	2009.50
	Total	88		
I pay attention to the unfamiliar usage of a known word (PER)	Arts	44	41.85	1841.50
	Science	44	47.15	2074.50
	Total	88		
I highlight the words that seem important to me.(MAN)	Arts	44	49.56	2180.50
	Science	44	39.44	1735.50
	Total	88		
When I look up a word in the dictionary, I read all the	Arts	44	49.80	2191.00
	Science	44	39.20	1725.00

meanings of new words.(DIC)	Total	88		
I check to see if my guesses abt the words are right or wrong (GUE)	Arts	44	51.90	2283.50
	Science	44	37.10	1632.50
	Total	88		
I look up new words in an English-BM or English-Chinese dic.(DIC)	Arts	44	50.89	2239.00
	Science	44	38.11	1677.00
	Total	88		
I try to remember the BM or Chinese equivalent of the word. (ENC)	Arts	44	49.06	2158.50
	Science	44	39.94	1757.50
	Total	88		
I distinguish words with similar meanings.(ENC)	Arts	44	42.89	1887.00
	Science	44	46.11	2029.00
	Total	88		
I listen to English songs, radio programs, watch English movies, etc to increase my vocab.(SOU)	Arts	44	51.10	2248.50
	Science	44	37.90	1667.50
	Total	88		
I read stories, magazines etc outside class to increase my vocabulary.(SOU)	Arts	44	46.40	2041.50
	Science	44	42.60	1874.50
	Total	88		
I use the newly-learned words as much as possible in speaking and writing.(ACT)	Arts	44	48.20	2121.00
	Science	44	40.80	1795.00
	Total	88		
When I come across a new word, I make a note of it (SOU)	Arts	44	43.99	1935.50
	Science	44	45.01	1980.50
	Total	88		
I review my vocabulary regularly (MAN)	Arts	44	46.02	2025.00
	Science	44	42.98	1891.00
	Total	88		
I make plans for my vocabulary learning (MAN)	Arts	44	49.27	2168.00
	Science	44	39.73	1748.00
	Total	88		
I make up my own sentences using the words I just learnt.(ACT)	Arts	44	47.14	2074.00
	Science	44	41.86	1842.00
	Total	88		
I group words in my own way to	Arts	44	47.05	2070.00

remember them.(MAN)	Science	44	41.95	1846.00
	Total	88		
I keep a vocabulary notebook to jot down new words I want to learn.(MAN)	Arts	44	43.18	1900.00
	Science	44	45.82	2016.00
	Total	88		
I look up new words in an English-English dictionary.(DIC)	Arts	44	46.61	2051.00
	Science	44	42.39	1865.00
	Total	88		
I repeatedly visualize the new word to remember it.(REH)	Arts	44	47.58	2093.50
	Science	44	41.42	1822.50
	Total	88		

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Appendix 3

**Table 2**  
**Significant Differences of Vocabulary Learning Strategy use by Gender**

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	PER	SOU	ENC	REH	DIC	GUE	MAN	ACT
Mann-Whitney U	707.500	584.500	636.000	701.500	469.500	916.000	561.500	756.000
Wilcoxon W	1373.50	1250.50	1302.00	1367.50	1135.50	1582.00	1227.50	1422.000
Z	-1.956	-3.005	-2.570	-2.029	-3.987	-.174	-3.199	-1.559
Asymp. Sig. (2-tailed)	.050	.003	.010	.042	.000	.862	.001	.119

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a. Grouping Variable: Gender

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**Table 3**  
**Mean Ranks and Sum Ranks of Vocabulary Learning Strategies by Gender**

	Gender	N	Mean Rank	Sum of Ranks
I pay attention to the pron of new word (PER)	male	36	41.50	1494.00
	female	52	46.58	2422.00
	Total	88		
I use textbook to lern new words (SOU)	male	36	42.79	1540.50
	female	52	45.68	2375.50
	Total	88		
I try to remember the sentence in which the word is used to remember it (ENC)	male	36	40.42	1455.00
	female	52	47.33	2461.00
	Total	88		
I repeat a new word out loud several times to remember it (REH)	male	36	38.32	1379.50
	female	52	48.78	2536.50
	Total	88		
I pay attentn to the eg of how a word is used in English (PER)	male	36	39.32	1415.50
	female	52	48.09	2500.50
	Total	88		
I carry a pocket dic to look up the words I don't know (DIC)	male	36	35.03	1261.00
	female	52	51.06	2655.00
	Total	88		
I pay attention to the grammatical patterns of a new word (PER)	male	36	41.97	1511.00
	female	52	46.25	2405.00
	Total	88		
I analyse the structure of a word to remember it.(ENC)	male	36	39.38	1417.50
	female	52	48.05	2498.50
	Total	88		
I associate new words with those I already know (ENC)	male	36	40.93	1473.50
	female	52	46.97	2442.50
	Total	88		
I guess the meaning of words I don't know (GUE)	male	36	49.21	1771.50
	female	52	41.24	2144.50
	Total	88		
I pay attention to the unfamiliar usage of a known word (PER)	male	36	38.64	1391.00
	female	52	48.56	2525.00
	Total	88		
I highlight the words that seem important to me.(MAN)	male	36	33.49	1205.50
	female	52	52.13	2710.50
	Total	88		
When I look up a word in the dictionary, I read all the meanings of new words.(DIC)	male	36	35.57	1280.50
	female	52	50.68	2635.50
	Total	88		
I check to see if my guesses abt the words are right or	male	36	40.56	1460.00
	female	52	47.23	2456.00

wrong (GUE)	Total	88		
I look up new words in an English-BM or English-Chinese dic.(DIC)	male	36	38.56	1388.00
	female	52	48.62	2528.00
	Total	88		
I try to remember the BM or Chinese equivalent of the word. (ENC)	male	36	41.31	1487.00
	female	52	46.71	2429.00
	Total	88		
I distinguish words with similar meanings.(ENC)	male	36	40.90	1472.50
	female	52	46.99	2443.50
	Total	88		
I listen to English songs, radio programs, watch English movies, etc to increase my vocab.(SOU)	male	36	40.18	1446.50
	female	52	47.49	2469.50
	Total	88		
I read stories, magazines etc outside class to increase my vocabulary.(SOU)	male	36	37.17	1338.00
	female	52	49.58	2578.00
	Total	88		
I use the newly-learned words as much as possible in speaking and writing.(ACT)	male	36	40.25	1449.00
	female	52	47.44	2467.00
	Total	88		
When I come across a new word, I make a note of it (SOU)	male	36	35.86	1291.00
	female	52	50.48	2625.00
	Total	88		
I review my vocabulary regularly (MAN)	male	36	36.88	1327.50
	female	52	49.78	2588.50
	Total	88		
I make plans for my vocabulary learning (MAN)	male	36	40.69	1465.00
	female	52	47.13	2451.00
	Total	88		
I make up my own sentences using the words I just learnt.(ACT)	male	36	42.15	1517.50
	female	52	46.13	2398.50
	Total	88		
I group words in my own way to remember them.(MAN)	male	36	41.83	1506.00
	female	52	46.35	2410.00
	Total	88		
I keep a vocabulary notebook to jot down new words I want to learn.(MAN)	male	36	35.22	1268.00
	female	52	50.92	2648.00
	Total	88		
I look up new words in an English-English dictionary.(DIC)	male	36	37.64	1355.00
	female	52	49.25	2561.00
	Total	88		
I repeatedly visualize the new word to remember it.(REH)	male	36	40.64	1463.00
	female	52	47.17	2453.00
	Total	88		

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