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# VOCABULARY LEARNING STRATEGIES AMONG UNIVERSITY SCIENCE ISLAMIC MALAYSIA (USIM) MANDARIN LEARNER 

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#### Abstract

The present study examined Mandarin vocabulary size and vocabulary learning strategies of University Science Islam Malaysia's (USIM) Level 3 learners. The questionnaire has divided into three sections; firstly, Vocabulary Size Test (VST) was conducted to examine the learners' vocabulary size. The second section was aimed to investigate vocabulary learning strategies applied by the learners. The third section was meant to determine the popular ways under each vocabulary learning strategy. The finding of present study revealed that most Mandarin language learners settled with an unsatisfactory vocabulary size of 200 to 400 . Besides that, these express the part where the learners employed cognitive strategies the most and metacognitive strategies the least. Among the most famous strategies include taking notes, revision of words, discuss with classmates, and review vocabulary. The results of this study clearly suggest that training of systematic vocabulary learning strategies should be introduced to assist learners enhance their Mandarin vocabulary size. In addition, the initiative to utilise the learning strategies preferred by learners is also needed in order to increase their vocabulary size and knowledge respectively.


Keywords: Mandarin, Vocabulary Learning Strategies (VLS), Vocabulary size, University Science Islam Malaysia (USIM).

## INTRODUCTION

The trend of learning Mandarin language among non-native speakers has dramatically increased in Malaysia, especially when the country is classified as a sub-partner of the Silk Road Economics Belt and the 21st-Century Maritime Silk Road. Most local universities in Malaysia offer basic Mandarin language courses for non-native Mandarin learners who are interested in learning Mandarin. At University Science Islam Malaysia (USIM), Mandarin language courses of Level 1, 2, and 3 are offered to all faculty students. Basically, the Mandarin courses focus on elementary Mandarin vocabulary, grammar, Hanyu Pinyin (Chinese alphabet), and communication skills. According to the university syllabus, the learners should be able to master 200 to 250 vocabularies at each level. Apparent, there are at least 600 vocabularies to be mastered by the learners if they successfully completed all the three levels. However, some negative
phenomena were discovered by many of the Mandarin lecturers. They realised that a lot of learners are interested to register at the initial stage or first level of the courses, but become demotivated and less interested to continue after one or two semesters (Yin, 2003). This change might be caused by the various challenges the learners face in terms of writing or speaking, which are also related to new vocabulary. In reality, learning Mandarin as a foreign language is an arduous task for non-native Mandarin learners, especially when it comes to writing in Mandarin (Ting \& Jacqueline, 2018). This is because Mandarin does not implement an alphabetical system, but uses logographic language as its writing system (Chua, Tan, \& Lin, 2015). In English and Malay languages, there is a similarity in the repetition of using 26 letters to spell new words This can simply be considered as totally different from Mandarin language which uses 24 basic strokes that combine differently in order to form radicals or the basic components to make characters (Sung, 2014). In other words, learning new vocabulary of languages using an alphabetical system is considered easier compared to Mandarin (Lam \& Kuan, 2019). Therefore, new vocabulary learning can be considered a strenuous mission for Mandarin novice learners. As such, it is important to investigate the vocabulary size and vocabulary learning strategies of USIM learners who enrolled in the Mandarin courses. Meanwhile, the findings of the present study can illustrate learners' preferred strategies which subsequently allow language instructors to implement appropriate language activities, tasks, and assignments to facilitate learners in a learning process that is more effective.

## Objectives of the Study

This study intended to ascertain the Mandarin vocabulary size and vocabulary learning strategies among USIM learners. The research questions that guided the study are listed as follows:

1. To justify Mandarin vocabulary size of the USIM learners.
2. To identify the frequency of use of each VLS by the USIM learners.
3. To illustrate the popular ways under each VLS among the USIM learners.

## LITERATURE REVIEW

## Vocabulary Learning Strategies (VLS)

Vocabulary learning strategies or VLS can be considered as techniques that facilitate language learning in a second or foreign language (Oxford, 1990). According to past research, most scholars agreed with the significant role of vocabulary learning strategies in the process of foreign language learning, especially if the learners came from different cultural backgrounds (Omaar, 2016). Regarding the complexities of vocabulary learning, Nation (1995) considered learning vocabulary as a difficult task for all language learners. This is mainly because many native speakers need to spend years of their time to build up vocabulary through different learning activities. By the same token, the non-native speakers may even confront a greater challenge in the process of learning vocabulary. Henceforth, there is a critical need for the introduction and implementation of vocabulary learning strategies among the novice learners as many researchers asserted that successful language learners will always use a wide range and appropriate vocabulary learning strategies compared to poor leaners.
According to previous studies, fruitful findings are shown by alphabet language researchers, especially in English language, such as Haryati, Melor \& Nor (2016), Asgari \& Mustapha (2011), Sami (2017), Nicolau (2017), as well as Nayan \& Krishnasamy (2015). Normally, VLS researchers are interested to investigate the strategies that are commonly used by language learners through the questionnaire method. The results
revealed that learners of Roman alphabetic-based languages prefer several VLS, such as communicating with native speakers, listening to foreign language songs, applying newly-learnt vocabulary in daily activities, and utilising a monolingual dictionary (Asgari \& Mustapha, 2011; Nayan \& Krishnasamy, 2015). In other words, the learners of Roman alphabetic-based languages prefer social, memory, and determination strategies. However, these findings cannot talk in the same breath as the features of English language and Mandarin language are different (Chu \& Wang, 2013). Shen (2005), in his study, found that ninety-five learners chose to adopt the orthographic knowledge-based cognitive strategy the most, followed by metacognitive strategies. The result is supported by Liu (2013), Tan \& Hoe (2010), and Wang (2018). Hence, it can be determined that the respondents of these studies were mostly non-native speakers of Mandarin learning, consisting those from elementary right through advanced level. Therefore, it can be considered that alphabetic-based language learners and Mandarin language learners are different in terms of their VLS.

## Vocabulary Size of Mandarin Learners

The term vocabulary size can be defined as the quantity of words in a learner's mental capacity (Kalajahi \& Pourshahian, 2012). According to Zhao (2018), there are above 6000 commonest words in Mandarin, but only 800 to 1,000 Mandarin words can be considered as highly used by foreign language learners (Jia \& Zhao, 2016). Meanwhile, HSK (Hàn yǔ Shuǐ píng Kǎo shì)- Chinese Proficiency Test pointed out that Mandarin learners should master 200 words at each level and acquire 600 words. If learners acquired 600 Mandarin words, they could use Mandarin to fulfil all the requirements of their personal lives even cover most communication tasks. In other words, 600-1,000 words can be considered as the minimum threshold to perform well in speaking and writing. In fact, this figure is legally recognised as fluent and smooth level (Daniel, 2018; HSK, 2021).

## Schmitt's Taxonomy of Vocabulary Learning Strategies

Schmitt's (1997) created Taxonomy of Vocabulary Learning Strategies based on Oxford's (1990) Strategy Inventory for Language Learning (SILL). In Schmitt's (1997) theory, discovery strategies comprised of two main sub-strategies, namely determination and social strategies, while consolidation strategies have four sub-strategies, namely social, memory, cognitive, and metacognitive strategies. Discovery strategies refer to strategies that learners employ to acquire meaning of new words, whereas consolidation strategies refer to learners' effort to store up the meaning of new words and implement them in the long run (Schmitt 1997). Schmitt categorised 58 different items of VLS into discovery strategies and consolidation strategies. Determination strategies refer to strategies where learners apply their basic apprehension of the language, reference materials, or context background (Schmitt 1997). Meanwhile, social (discovery) strategies refer to learners' interaction with third parties in a way to explore the meaning of new words (Schmitt, 1997). Nevertheless, social (consolidation) strategies are different from social (discovery) strategies, where the former are exerted to acquire the meaning of words that are confronted for the first time. Meanwhile, social (consolidation) strategies are utilised to enhance or expand learners' vocabulary knowledge (Schmitt, 1997), such as by practicing meaning of words in discussion group, requiring someone to inspect flashcards or word notes, and communicating with native speakers. Memory strategies refer to storing and retrieving newly learnt words (Oxford, 2001) by interconnecting them to any existing knowledge by using some form of imagery or grouping (Schmitt, 1997). Cognitive strategies refer to the methods that are manipulated by learners and facilitate them to understand the new words (Schmitt, 1997). Basically, these techniques comprise the usage of repetition and iteration to do something, such as repeating words in written form, taking notes, and repeatedly review a vocabulary book. Schmitt (1997) pointed out that metacognitive
strategies can be considered as strategies that are intentionally employed to manage language learning, which is exerted to supervise and evaluate one's own learning (Schmitt, 1997).

## METHODOLODY

## Respondents and Data Collection

In the present study, the researcher employed a survey questionnaire as sole instrument as it can be considered as the most efficient method to identify learners' vocabulary learning strategies (Fauziati, 2015). There are seven classes of Mandarin learners who participated in this study. The questionnaire was adapted from Schmitt's (1997) and translated into Malay language as all the respondents were Malay learners (Lee, 2014). Besides, the questionnaire on Mandarin VLS was designed in five-point Likert response scales with a total of 52 items. The learners were expected to answer the questionnaire items by circling one number from 1 to 5 , with ' 1 ' being 'never', ' 2 ' being 'rarely', ' 3 ' being 'sometimes', ' 4 ' being 'often', and ' 5 ' being 'always.' Respondents were given 40 minutes to complete the questionnaire in class. Initially, there were seven classes ( 1 class $=28$ respondents) of 196 respondents involved in the study. However, 25 sets of the questionnaires were considered unusable due to incompletion and being scrawled on. Thus, only 171 sets of questionnaire were acceptable and subjected to be analysed. Once the data were collected, they were analysed using SPSS 2.0 programme to get the descriptive result.

## FINDINGS AND DISCUSSION

To justify Mandarin vocabulary size of the USIM learners

Table 1: Mandarin Vocabulary Size of USIM Learners

| Vocabulary Size (Word <br> Families) | Frequency | Percentage <br> $(\mathbf{\%})$ |
| :---: | :---: | :---: |
| $\mathbf{0 - 2 0 0}$ | 52 | 30.4 |
| $\mathbf{2 0 1 - 4 0 0}$ | 74 | 43.23 |
| $\mathbf{4 0 1 - 6 0 0}$ | 29 | 16.9 |
| $\mathbf{6 0 1 - 8 0 0}$ | 11 | 6.4 |
| $\mathbf{8 0 1 - 1 , 0 0 0}$ | 4 | 2.3 |
| $\mathbf{1 , 0 0 1 - 1 , 2 0 0}$ | 1 | 0.77 |
| $\mathbf{1 , 2 0 1 - 1 , 4 0 0}$ | 0 | 0 |
| Total | 171 | 100 |

Based on the data result, 74 respondents ( $43.23 \%$ ) successfully achieved a vocabulary size of 201-400, and 52 respondents ( $30.4 \%$ ) had a vocabulary size of $0-200$. Meanwhile, only four respondents ( $2.3 \%$ ) had a vocabulary size of $801-1,000$ and one respondent ( $0.5 \%$ ) with $1,001-1,200$ of vocabulary size. Simply, most USIM Mandarin learners did not achieve the threshold of 600 words that is the minimum requirement vocabulary size for daily routine activities. Thus, this implies that most USIM Mandarin learners are confronted with the limitation of vocabulary size as they encounter difficulties in understanding their lecturers' speech and the textbooks are fully written in Chinese words.

## To identify the frequency of use of each VLS by the USIM learners

Table 2: Vocabulary Learning Strategies of the USIM Learners

| No | Vocabulary Learning Strategies | Frequency <br> $(\%)$ |
| :---: | :---: | :---: |
| $\mathbf{1}$ | Cognitive Strategies | 82.37 |
| $\mathbf{2}$ | Memory Strategies | 78.38 |
| $\mathbf{3}$ | Determination Strategies | 76.44 |
| $\mathbf{4}$ | Social Strategies | 72.45 |
| $\mathbf{5}$ | Metacognitive Strategies | 68.79 |

In the present study, the finding showed that learners are more inclined to employment of cognitive strategies among the six strategies ( $82.37 \%$ ). This is caused by cognitive strategies that always create mental connection. When using cognitive strategies, there are a few different stages involved in the learners' mind, such as practicing, receiving, delivering output, analysing, deliberating, and rebuilding structure ideas. Therefore, many high language proficiency learners prefer to establish an appropriate model and formula in their minds. The system depends on their own analysis when they recruit new information (Oxford, 1990). Following this is the memory strategies ranked second in terms of frequency of use by the USIM learners in Mandarin language learning ( $78.38 \%$ ). In the process of learning vocabulary, memory strategies can be considered a highly needed method for novice learners. This is because, according to the university syllabus, learners are targeted to master at least 200 new words at each level. In short, they will be able to master more or less of 600 new words within the three levels.

The third strategy was the determination strategies $(76.44 \%)$. Basically, the USIM learners will explore the meaning of words by themselves and many of them tend to associate some information when they encounter unfamiliar new vocabulary while reading a textbook. This is because Mandarin textbooks always include plenty of related information, such as the meaning of words, pictures, and explanations, and learners could guess intelligently through the use of their knowledge and learning experiences. Therefore, determination strategies can be considered a useful and helpful tool kit for the USIM learners ( $76.44 \%$ ). Following this are the social strategies $(72.45 \%)$. They refer to interactions or seeking help from other people such as language instructors, classmates, friends, and peers to improve vocabulary learning (Schmitt, 2000). The USIM learners will always ask their language instructor or classmates for assistance when they are confronted with unknown lexis even when it is attached with full paraphrasing, synonyms, or translation. Lastly, metacognitive strategies are considered the least used strategies revealed by the present study ( $68.79 \%$ ). This strategy refers to consciously overviewing the learning process, such as planning, monitoring, controlling, reviewing, and evaluating the appropriate methods to study, including self-exposure to media (Schmitt, 2000). In plain words, metacognitive strategies encourage learners to explore better access to input
and establish the most suitable and appropriate methods to learn new vocabulary. In fact, metacognitive strategies are considered a complicated method that involves three stages, namely overview, planning, and action. Thus, the low frequency of metacognitive strategies is expected as the learners are still novice at the elementary level (Lam \& Kuan, 2019).

## To illustrate the popular ways under each VLS among the USIM learners.

Table 3: Sub-Components of Cognitive Strategies

| No | Sub-Components <br> When I learn Mandarin vocabulary, ... | Popularity <br> $\mathbf{( \% )})$ |
| :--- | :--- | :---: |
| $\mathbf{1}$ | I take notes in class. | 98.01 |
| $\mathbf{2}$ | I use vocabulary list of the textbook. | 97.23 |
| $\mathbf{3}$ | I write new words repeatedly. | 95.48 |
| $\mathbf{4}$ | I use word list. | 93.89 |
| $\mathbf{5}$ | I verbally repeat to memorise new words. | 91.01 |
| $\mathbf{6}$ | I review Chinese characters often. | 84.44 |
| $\mathbf{7}$ | I refer the vocabulary list in the notebook. | 82.76 |
| $\mathbf{8}$ | I record new words on a phone or a computer, <br> and listen to them afterwards. | 80.26 |
| $\mathbf{9}$ | I use flashcards. | 78.84 |
| $\mathbf{1 0}$ | I listen to the sound of the word repeatedly. | 77.63 |
| $\mathbf{1 1}$ | I use a flashcard app on my phone and <br> computer. | 76.44 |
| $\mathbf{1 2}$ | I put labels on physical objects. |  |
| $\mathbf{1 3}$ | I play vocabulary games on my phone or <br> computer. | 48.89 |
| $\mathbf{1 4}$ | I write letters, messages, or emails to practice <br> new words. | 44.37 |

Based on Table 3, there are 14 sub-components of cognitive strategies used by the USIM learners based on their disposition. The findings showed that the respondents in the present study are inclined to implement traditional learning strategies which are taking notes, repeating, and referring to word lists (Huseyin, 2019). Basically, these methods are classified as the most common methods in learning. The learners tend to use these strategies as they are believed to be the most constructive compared to other strategies. In other words, these methods can be considered the most significant and frequently adopted by learners (Zare, 2012).

According to Lam and Kuan (2019), most local public universities still remain employing traditional teaching methods where the language instructor is the "main" role in the teaching and learning process. Conventionally, Mandarin lecturers will always go through the vocabulary section in the note books before starting the class or proceed with the learning activities. Next, the lecturer will lead the learners to read the dialogues, paragraphs, or sentences, and explain the meaning of the new vocabulary. Alimadad, Hamidreza, and Nosratollah Yousefi (2014) also mentioned that cognitive strategies can be considered the most important element for novice learners because it plays its role as a "manipulation or transformation of the target language by the learner" (Oxford, 1990, p. 43). In other words, cognitive strategies are techniques that can directly convey the language knowledge to learners, especially to those who are interested to improve their language proficiency (Vo \& Jaturapitakkul, 2016). Indirectly, this statement is able to illustrate the circumstance of the USIM learners as they are the ones who decided to register for the Mandarin courses and have interest to learn Mandarin as a foreign language. Mandarin is always labelled as the most difficult language (Cheong, Jano, Salam, Bareed, Ithinin, \& Suraidi, 2019) despite learners realise the importance of Mandarin in their future job advancement after graduation. Therefore, learners will always try to manage the most effective and appropriate way to improve their language level.

Table 4: Sub-Components of Memory Strategies

| No | Sub-Components <br> When I learn Mandarin vocabulary, ... | Popularity <br> $(\mathbf{\%})$ |
| :---: | :--- | :---: |
| $\mathbf{1}$ | I memorise the sound of a word. | 97.12 |
| $\mathbf{2}$ | I memorise the spelling of a word. | 95.98 |
| $\mathbf{3}$ | I pronounce a new word aloud when studying. | 92.77 |
| $\mathbf{4}$ | I visualize the spelling and shape of Chinese <br> characters. | 90.02 |
| $\mathbf{5}$ | I write the words on a page to group them. | 87.58 |
| $\mathbf{6}$ | I picture the meaning of words. | 85.41 |
| $\mathbf{7}$ | I make up sentences using newly learned <br> words. | 83.67 |
| $\mathbf{8}$ | I remember words that sound similar together. | 79.88 |
| $\mathbf{1 0}$ | I connect a new word to a personal experience. | 75.61 |
| $\mathbf{1 1}$ | I group words together with a category (e.g., <br> family, food, pet, number, and place). <br> I associate a new word to a word in my first | 74.77 |
| $\mathbf{1 2}$ | language (cognate or similar sound). <br> I connect a new word with its location on a | 73.19 |
| $\mathbf{1 3}$ | I post new words on the wall to help me <br> memorise them. | 72.13 |


| $\mathbf{1 4}$ | I memorise the sound of the word by <br> segregating it into several parts. | 70.04 |
| :--- | :--- | :--- |
| $\mathbf{1 5}$ | I act out the word to help me remember it. For <br> instance, do drinking action when pronounce <br> the word "drink" or "掲" in Mandarin. | 65.22 |
| $\mathbf{1 6}$ | I connect a new word to its synonyms and <br> antonyms. | 64.86 |
| $\mathbf{1 7}$ | I use a prefix, suffix, root, or radical to help me <br> memorise. | 60.22 |
| $\mathbf{1 8}$ | I connect a new word to words I already know <br> to look up its meaning. | 55.21 |
| $\mathbf{2 0}$ | I learn the words in a sentence or an idiom <br> together. | 49.54 |
| $\mathbf{2 1}$ | I use rhymes/songs to memorise new words. | 44.67 |
| $\mathbf{2 2}$ | Apart from the meaning of a word, I pay <br> attention to how it is used. <br> I use brainstorming to recall new words from <br> the same topic. | 42.55 |

Based on Table 4, there are 22 different memory strategies that are preferable by the USIM learners. The findings revealed that the USIM learners are inclined to learn visual and sound representations of Mandarin words. Then, they will interconnect the new information with existing knowledge or familiar things. Eventually, they will divide the information into specific groups. In other words, learners will able to memorise and extract new information by specific categorisation. Basically, many foreign language learners prefer to study visual and sound representations. This is because, these approaches could give direct impact to their senses. Meanwhile, certain learners prefer to employ interrelating and grouping new vocabulary and existing knowledge. This, indirectly, is able to minimise the burden of learners (Lam \& Kuan, 2019). Thus, interrelating and grouping can be considered a helpful toolkit for learners to memorise new vocabulary as Mandarin always exists in similar sounding words (homophones), but with different meanings (Kim, 2016). In the same light, writing practice is also considered an important approach to the USIM learners. This is because in the process of writing, learners are encouraged to imagine and connect. Mandarin is a logographic language system, which is totally different from English (alphabet system). Mandarin always uses 24 basic strokes in various ways to build radicals, whereas English is repeating the use of 26 letters to spell words (Sung, 2014). Therefore, memory strategies always provide a platform for learners to store, associate, and categorise new vocabulary while giving an apparent superiority to novice learners (Oxford, 1990). Meanwhile, idioms, rhymes, or brainstorming are considered the lowest frequency of use among the USIM learners. This might be due to the USM syllabus where most chapters focus on daily communication rather than songs or rhymes. Thus, learners really lack opportunity to learn singing or rhymes. In addition, the USIM learners were at elementary level, so the vocabulary size was still considered as insufficient and limited. Therefore, the USIM learners would need extra time to learn more vocabulary before they could really sing or understand the rhymes.

Table 5: Sub-Components of Determination Strategies

| No | Sub-components | Popularity |
| :---: | :---: | :---: |
|  | When I learn Mandarin vocabulary, $\ldots$ | $(\%)$ |


| $\mathbf{1}$ | I study a character's "stroke order". | 91.23 |
| :--- | :--- | :--- |
| $\mathbf{2}$ | I meet an unknown word, I guess it from <br> context. | 87.01 |
| $\mathbf{3}$ | I meet an unknown word, I guess it from <br> radical. | 84.69 |
| $\mathbf{4}$ | I meet an unknown word; I use phone <br> application to look up its meaning. | 80.55 |
| $\mathbf{5}$ | I meet an unknown word; I use a bilingual <br> dictionary to look up its meaning. | 49.28 |
| $\mathbf{6}$ | I meet an unknown word; I use a monolingual <br> dictionary to look up its meaning. | 48.54 |
| $\mathbf{7}$ | I pay attention to the sample sentences when I <br> look up a word in a dictionary. | 42.67 |

According to Chua, Tan \& Lin (2015), Mandarin has always been labelled as the most difficult language because its writing is totally different from other alphabetic writing systems. Thus, Mandarin is totally different from English and Malay as Mandarin uses logographic writing system rather than alphabetic system. Initially, language lecturers will teach vocabulary with the help of Hanyu Pinyin. The function of Hanyu Pinyin are to transcribe Mandarin characters using alphabet writing which can indirectly assist learners to read the vocabulary although they do not really understand or know the meaning (Lam \& Kuan, 2019). Nowadays, most public universities focus on Mandarin oral communication skills while some universities do not make it compulsory for the students to learn Mandarin characters. This is because the universities employ Hanyu Pinyin as the medium in teaching and learning. In other words, some universities will prioritise Hanyu Pinyin rather than Mandarin characters. Even though Hanyu Pinyin exhibits its convenience and important roles, Mandarin characters will never be taken over by it (Hebert \& Chisoni, 2015). This is because, learners will always encounter homophones in Mandarin and feel ambiguous when they are often interrupted by this kind of circumstances. Therefore, it has become a necessity for the learners to master Mandarin writing which can indirectly increase their vocabulary capability, as well as communication competency. By the same token, learners who are unable to master the Mandarin characters, it will indirectly affect their vocabulary capability. After a long time, this might have a negative impact on the learners although they are unable to communicate fluently with Mandarin speakers (Zhang, 2011).

In this regard, the USIM Mandarin classes are incorporated with Mandarin characters and Hanyu Pinyin in their process of teaching and learning new vocabulary. At the same time, the learners are always guided by the lecturers to learn the correct stroke orders even though there are plenty of online materials and dictionaries readily available to assist the USIM learners to catch up on their vocabulary learning. In other words, it can be considered that USIM learners are facilitated with sufficient and abundance of materials to support them in the process of learning vocabulary. Indirectly, this leads to the highest popularity of studying Mandarin characters' radical and stroke order among the USIM learners. Nonetheless, the USIM learners are among novice learners of Mandarin language. This is obvious when they encounter new vocabulary where they will normally try to guess the meaning from the radical and context. This is because their textbooks always contain some pictures and details, especially Mandarin characters that are widely used in the context of three main communities in Malaysia, namely Malay, Chinese, and Indian (Lewison, Kumar \& Wong, 2016). Therefore, it can be considered that meaning-guessing by radical, context, and stroke order can provide impetus to stimulate the learners to become more aggressively at learning more vocabulary. In the same vein, learners can do self-evaluation and always guess a new vocabulary meaning by what they
have learnt and known before. Hence, indirectly, these can train the learners, as well as establish their selfconfidence. Determination strategies always help learners gain the meaning of new vocabulary by guessing, and this approach can be considered easier compared to the rest (Schmitt, 1997).

From the other side of the coin, dictionaries can be considered as an anonymous approach among the USIM learners. Basically, all new chapters of vocabulary will provide the English translated meaning in the textbooks so that the learners can always refer the information every time they encounter unfamiliar vocabulary. In addition, some of the learners mentioned inadequate use of dictionary as wrong information was given regarding their assignments. This is because many of the words are always in direct or literal translation from English to Mandarin without considering the context (Wang, 2018). However, the USIM learners preferred smart phone dictionary apps as they are more convenient and handy compared to dictionaries.

## Table 6: Sub-Components of Social Strategies

| No | Sub-Components <br> When I learn Mandarin vocabulary, ... | Popularity <br> $(\%)$ |
| :---: | :--- | :--- | :---: |
| $\mathbf{1}$ | I ask my classmates for meaning. | 96.92 |
| $\mathbf{2}$ | I study and practice a new word in a group <br> activity. | 81.72 |
| $\mathbf{3}$ | I discover new meaning through group <br> work activities. | 78.95 |
| $\mathbf{4}$ | I ask my lecturer for a sentence, including <br> the new word. | 67.22 |
| $\mathbf{5}$ | I ask my lecturer for translation. | 64.63 |
| $\mathbf{6}$ | I ask my lecturer for a paraphrase or <br> synonyms of a new word. | 62.54 |
| $\mathbf{7}$ | I interact with non-native speakers of <br> Chinese. | 32.38 |

There are numerous of studies pointing on the importance of social interaction between learners and peers to help achieve vocabulary learning and acquisition (Krashen, 1985; Long, 1996; Pica, Lincoln, Paninos \& Linell, 1996; Swain, 2005). Pica, Lincoln, Paninos \& Linnell (1996) mentioned social interaction as the most significant approach in language development. The reason behind this is because learners will always share their needs and desire with interlocutors in order to understand each other. In plain words, socialising with peers can assist and facilitate learners in new vocabulary learning (Lam \& Kuan, 2019; Ali, 2020).

According to the findings, most of the USIM learners were inclined to learn vocabulary in groups and among peers. While these findings are paralleled to Sami, Adem, Beytullah, \& Gulnur's (2017) study, social strategies are seen as the popular strategies among the USIM learners. Generally, they prefer to employ social strategies because they feel restful and pleasurable as they can learn from each other. In the case of when the USIM learners are unable to find any related resources to explore the unknown vocabulary, they prefer to learn it from their classmates, teammates, friends, and peers (Azadeh \& Ghazali, 2011) due to their similar language level. Therefore, language lecturers can be assumed as the last choice for the USIM learners
as they feel awkward and reluctant in making errors in front of their language lecturers (Loh \& Teo, 2017). In the same vein, most of the USIM learners are not inclined to refer to their language lecturers because the textbooks they are using provide the translations and give examples in detail. Indirectly, the textbooks are another alternative way to explore the meaning of unknown vocabulary. However, language lecturers can introduce synonyms of the vocabularies that are closely connected in the textbooks. This can indirectly enhance the learners' vocabulary knowledge even though they lack speaking competency (Nation, 1990). Besides that, the language lecturers can conduct some vocabulary activities or games to fill up the gap between them and their learners. By doing so, the learners are able to explore more new vocabularies in their leisure time rather than detaining them in classroom.

On the other hand, interacting with Mandarin speakers appeared as the last option among the USIM learners. In the USIM context, there are very few Mandarin speakers. In fact, most of the USIM learners come from religious education background. Therefore, there is lack of opportunity to meet Mandarin speakers on campus, which then leads to the least opportunity for them to interact with Mandarin speakers compared to in other universities.

Table 7: Sub-Components of Meta-Cognitive Strategies

| No | Sub-components <br> When I learn Mandarin vocabulary, ... | Popularity <br> $(\mathbf{\%})$ |
| :---: | :--- | :---: |
| $\mathbf{1}$ | I schedule review sessions to review the <br> words I have learnt. | 89.82 |
| $\mathbf{2}$ | I always focus on words that are directly <br> related to examination. | 88.98 |
| $\mathbf{3}$ | I continue to study the words over a period of <br> time. | 78.36 |
| $\mathbf{4}$ | I plan my schedule so I will have enough time <br> to study new vocabulary. | 64.68 |
| $\mathbf{5}$ | I notice the mistakes I made when using <br> words and use the information to improve <br> myself. | 45.78 |
| $\mathbf{6}$ | I discuss with others about the strategies of <br> learning new words. | 42.49 |
| $\mathbf{7}$ | I use Mandarin media (songs, movies, radio <br> programs). | 32.86 |
| $\mathbf{8}$ | I test myself with new words outside of class. | 31.27 |
| $\mathbf{9}$ | I read Mandarin books, newspapers, and <br> magazines. | 30.98 |

According to Anderson (2002), metacognitive strategies can be considered as a complex and complicated process because they involve the process of "thinking about thinking". With metacognitive strategies, learners have to control their learning process and always monitor the learning progress. Therefore,
metacognitive strategies are involved at several different stages, including planning, monitoring, evaluating, and determining (Harris, 2003). In case learners employ metacognitive strategies, they have to manage their learning process independently (Nunan, 1990), Initially, it can be seen that learners who employ metacognitive strategies must always have the mental and physical preparation to handle learning problems alone. In other words, the learners must always plan their learning process and discover the appropriate approach to improve their learning progress. Eventually, the practices can guide learners to be more efficient in managing their learning and acquiring new vocabulary (Claudia, Cristina, \& Magda, 2017). In the USIM context, metacognitive strategies are anonymous. This is not surprising as all of the USIM learners are posited at the elementary level and they are still incapable to guide themselves. Conversely, metacognitive strategies are popular and favoured by intermediate and advanced level learners (Elham \& Mohammad, 2016). As they are known as novice learners, they still rely on arrangements by their language lecturers. However, the USIM learners used to make schedules and revision rosters when exams are coming up. They will memorise particular vocabulary that will appear in the final exams or tests (Caleb, 2017). In addition, the USIM learners also showed interest to explore new vocabulary by using technology apps, smart phones, and notebooks. Thus, language instructors can guide and facilitate learners to use electronic media resources in a way to explore vocabulary knowledge as there are plenty of language apps that are very useful for language learning.

Metacognitive strategies could empower learners' capability to conform their learning into new contexts and mission (Bransford, Brown, \& Cocking, 2000). Hence, language lecturers should assist or inspire learners to implement metacognitive strategies in the learning process as they will generate positive impact on vocabulary learning and learners' awareness of their learning process, which will eventually be adopted in vocabulary learning (Trujillo, Alvarez, Morales, \& Zamudio, 2015). For an instance, language lecturers conduct vocabulary games and require learners to fill in the blanks. Then, the lecturers may teach the learners to analyse the radical and make connection with the sentences, as well as their existing knowledge. By doing so, learners will realise that this kind of approach can be implemented in real circumstances. Eventually, the learners will able to manage self-directed learning and benefit from the systematic learning process (Hawkins, 2018).

## CONCLUSION

The present study investigated the vocabulary size and vocabulary learning strategies (VLS) employed by 171 Mandarin Level 3 learners at USIM. The study showed that majority (43.23\%) of the USIM learners had a vocabulary size below 201-400 words. In other words, the USIM learners did not achieve the minimum threshold of 600 words and lagged even far behind the target. Thus, it can be considered that most of the USIM learners were unable to understand the non-simplified spoken and written texts. This can be targeted to justify the frequency of use and popular approaches of each vocabulary learning strategy (VLS) among the USIM learners. It was shown that the USIM learners most preferred to employ cognitive strategies, such as taking note, using vocabulary list in the textbooks, and writing new words repeatedly. These are contributed by the learners themselves who need a huge amount of time and effort to memorise which stroke and component that are mixed up for each of the characters. Indirectly, they are cognitively demanding to learners who intend to explore more knowledge in Mandarin characters and vocabulary (Lee \& Kalyuga, 2011). At the same time, the findings showed that the USIM learners also employed other strategies in the process of learning, such as memory strategies, determine strategies, and social strategies. These are study the variety of Mandarin characters and the difficulty of homophones that are considered challenging for learners (Chua, Tan \& Lin, 2015). Although metacognitive strategies are the least frequently employed by
the USIM learners, the strategies will always focus on exam-related words. In other words, the objective of metacognitive use is inclined to examination-oriented mind-set rather than lifelong learning. To sum up, it is critical for Mandarin language lecturers to know more about the vocabulary strategies that learners prefer, in order to take the needed action to facilitate the USIM learners, prepare adequate language materials or assignment to assist them, indirectly it can increase the USIM learner' skills in using the vocabulary learning strategies. Eventually, it will assure that the USIM learners could learn the new vocabulary more efficiently and successfully.

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