

Investigating CFL Learners' Dependency on Pinyin in the Acquisition of Vocabulary Meaning

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ABSTRACT

The main task in the teaching and learning of Chinese vocabulary is to cultivate the ability of foreign students in recognizing, discriminating, choosing and using accurate words. However, the nature of Chinese characters in logographic form makes the reading and learning of the Chinese language more challenging. Every Chinese character carries not only the pronunciation (“*yin*”) and meaning (“*yi*”), but also the writing (“*xing*”). Hence, Chinese vocabulary acquisition includes the recognition of Chinese characters, the articulation of characters and the knowledge of the characters' meanings. Classroom practices indicated that beginner-level learners of Chinese-as-a foreign language (CFL) rely heavily on word articulation via Pinyin or phonetic alphabet orthography to comprehend the meaning of words. Therefore, this paper investigated the CFL learners' dependency on Pinyin to acquire the meaning of words. A total of 60 CFL learners participated in this study. They were given a written task to write the meaning of 30 Chinese words in the target language in two situations; firstly without provision of Pinyin and then with the provision of Pinyin. The results showed that the mean score of words comprehended accurately without Pinyin is 5.817 out of 30 words. The words comprehended with the provision of Pinyin showed a higher score of 25.483/30. The high dependency of Pinyin to acquire the word meaning implied that more teaching and learning of written word recognition should be imposed in the CFL beginner-level classroom.

Keywords: Chinese-as-a-foreign language, meaning, Malaysia, Pinyin, vocabulary meaning

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INTRODUCTION

The drastic development of China's economy after its Open Door Policy implementation in the 1980s has drawn the world's interest to the country and its official language, Mandarin. Mandarin, or Standard Chinese,

is better known as “*Putong Hua*” (common speech) in mainland China, as “*Guoyu*” (national language) in Taiwan, as “*Huayu*” (Chinese language) in South East Asia countries, and as “*Hanyu*” (Han language) when referring to Chinese-as-a second language or foreign language.

In Malaysia, Chinese-as-a foreign language (CFL) has been in great demand among students in public universities (Tan & Hoe, 2017). The main aim of Malaysian public university learners is to converse with Chinese speakers and to secure a better career opportunity (Lee & Chow, 2015). The CFL course learners in Malaysian universities are becoming more popular among non-Chinese speakers, who are generally Malays, Indians, other minorities and foreigners. The content of the CFL course as carried out in this study basically covers listening and speaking skills, as well as reading and writing of Chinese characters and Pinyin (Division of Academic and International Affairs, 2018).

Unlike most writing systems which are phonographic, Chinese script is presented in the logographic form. In other words, the Chinese words are not spelt out, but they are characters written in the two-dimensional form set within squares, for example, “人” ([*ren*] people), “看” ([*kan*] to see), “湖” ([*hu*] lake). As seen in the example, every single character is single syllable (“*ren*”, “*kan*”, “*hu*”). Chinese writings or characters carry not only the pronunciation (“*yin*”) and meaning (“*yi*”), but also the writing, or orthography (“*xing*”). As for the word with the meaning “people”, the

pronunciation is “*ren*”, while the writing is “人”. Logographic characters, such as Chinese characters represent words or morphemes (Taylor & Taylor, 1983). In other words, the writing does not provide the message or hint on how the words are to be pronounced. Hence, the pronunciation scheme or official romanization system for standard Chinese was introduced in China in 1958, in order to help learners, especially foreign learners to read and to remember the pronunciation of Chinese characters (Zhao, 2010). The pronunciation of characters are transcribed into alphabets (romanized), called “*Pinyin*”. Before the implementation of romanized phonetic transcription, there was a set of phonetic symbols (Zhuyin) introduced in 1918. Prior to the use of the romanized system and phonetic symbols, the pronunciation of characters was reflected by the most commonly used or well-known characters. In short, the Chinese script is the character, while Pinyin is the phonetic transcription.

Semantically, most of the Chinese characters can stand alone as morphemes, but some are dependent. The characters that can stand alone as morphemes are the lexical units of Chinese. In other words, a Chinese word can be one single character or more than one. As pointed by Zhao (1968), the definition of a word in Chinese is, however, rather ambiguous.

For instance, “人” [*ren*] is a character, and it is a word depicting the meaning “people”. “电视” ([*dianshi*] or “electrical vision” is a word with two characters, meaning “television”. Another example, “

加拿大” [*Jianada*] or “Canada” is a three-Chinese-character word meaning Canada. The characters “加” [*jia*], “拿” [*na*], and “大” [*da*] are three characters which are considered as non-morpheme words. In this case, more than one Chinese character is needed to produce the word that carries the meaning of “Canada”. Other examples of a lexical unit with more than one character are “看见” ([*kanjian*], which means “to see”; and “学习” [*xuexi*] which means “to study”. The presence of two morphemes with similar meanings that are joint together in word-formation is commonly found in the Modern Chinese (as compared to classical Chinese). This illustrates the features of Chinese words that can consist of one morpheme (monosyllabic morpheme) or more (disyllabic or multisyllabic morpheme).

Due to the nature of the logographic writing system, the teaching and learning of Chinese words include the recognition of Chinese characters, articulation of characters and the knowledge of characters' meaning. Therefore, the basics to learn Chinese words, also rely on recognizing and identifying the Chinese character system. General classroom practices, likewise, indicated that beginner-level learners of CFL rely heavily on word articulation via Pinyin or phonetic transcriptions to comprehend the meaning of words. Second language studies on Chinese characters also indicated that phonology plays a major part in word identification (Everson, 1998). However, this view remains controversial, because the role of phonetic radicals has not

been closely examined (Akiko, 2016). As pointed out by Akiko (2016), the mechanism of processing logography has been a long-debated issue, mainly due to the lack of transparency between phonology (Pinyin) and orthography (character).

Studies on second language acquisition proved that the proper use of vocabulary is more important than that of grammar (Jiang, 1998). For the teaching of vocabulary to CFL learners, Jiang (1998) proposed a contextual teaching strategy while Fang (2013) stressed on the learners' needs and background knowledge. Several other studies such as Ke (1996), Chin (1973), Nation (2001) and McEwen (2006) investigated the ability of CFL learners in task recognition and task production while Chin (1973), Sergent and Everson (1992), Xiao (2002), and McEwen (2006) examined the impact of the density of Chinese characters on word recognition. Peggy et al. (2018) investigated the effects of Pinyin and pronunciation on monosyllabic and disyllabic word recognition.

Besides having background knowledge and language knowledge, more in-depth studies pertaining to the relationship have evolved. For example, Everson (1998) investigated the relationship between the ability to know the pronunciation and meaning, as well as the word learning strategy among CFL learners. Hayes-Harb and Cheng (2016), likewise reviewed the influence of Zhuyin and Pinyin on Chinese word acquisition. Recent studies have also focused on the impact of the provision of word pronunciation on the assessment of vocabulary knowledge

(Zhang et al., 2017) and the role of Pinyin on word recognition (Wang & Harris, 2016). While some studies have explored vocabulary and pronunciation as separate entities, there is a great link between vocabulary and Pinyin that is less explored.

Borrowing Wilkins's (1972) quote "without grammar little can be conveyed, without vocabulary, nothing can be conveyed". This study therefore, seeks to shed some light on vocabulary learning in CFL settings by probing further into the aspect of Pinyin. Furthermore, from the review of previous studies, it is evident that the dependency of word recognition on Pinyin among Malaysian university CFL learners has not received adequate attention from researchers. Thus, this study seeks to explore further into the dependency of CFL learners on Pinyin to comprehend word meanings. Specifically, the study aims at answering three main research questions on the learning of vocabulary among CFL learners in a Malaysian public university. Firstly, the study attempts to investigate the dependency of respondents on Pinyin to comprehend the meaning of Chinese words. Secondly, it seeks to understand the word learning strategy used and thirdly, to understand the challenges faced by CFL learners in comprehending the meaning of Chinese words.

Literature Review

Teaching and Learning Chinese as a Foreign Language. The three strategies of approach, method and technique have to be accurately integrated for producing quality

and effective language teaching (Husin, 1998). However, effective integration of all strategies is not easily attainable in certain language teaching, particularly for standard Sino-Tibetan languages such as the Chinese language due to its logographic features (Huang, 2009; Lee & Jaganathan, 2014).

The main objective of teaching Chinese-as-a foreign (CFL) language is to cultivate learners in the aspects of phonology, vocabulary, grammar and Chinese characters (Zhao, 2010). The expected learning outcome is to enable learners to communicate in the Chinese language. The teaching of CFL targets two categories of learners: the minorities within mainland China and the foreigners outside China (Xing, 1996). The teaching and learning of CFL that commenced from the late 1950s had gradually developed into a discipline in the late 1970s (Zhao, 2011). The reading component, however, involves a two-step process; one involving the learning for rapid acquisition of spoken language, and the other involving the learning of Chinese characters (Everson, 1998). Due to its nature of non-phonetic symbols and its non-alphabetic form, the learning of reading in Chinese has to be split into two processes. Given the intricate features of its graphology that are based on stroke orders and the pronunciation of words that are based on tone and stress, CFL students also face some challenges in identifying the characters. Studies on Chinese language learning also show that one of the greatest challenges for CFL is learning the Chinese characters (Huang, 2009; Shi & Wang,

1998; Zhang, 2009). This factor contributes to the failure of teaching CFL learners to produce pronunciation accurateness, as well as the lack of interest among teachers in teaching the stroke orders to the learners (Zhao, 2011).

Teaching and Learning of Chinese Vocabulary. The Chinese vocabulary pool is large. The total number of Chinese vocabulary accounts for about hundreds of thousands. Nevertheless, an average Chinese adult knows only about tens of thousands of Chinese vocabulary (Zhao, 2011). The statistics on the number of vocabulary used and needed by Chinese speakers and CFL learners vary according to language groups. China's National Linguistics Work Committee (*Guojia Yuyan Wenzhi Gongzuo Weiyuanhui*) published a list of 3000 most commonly used Standard Chinese vocabularies in 1964. There are 4000 words included in the list of most commonly used words by CFL learners published in 1986 (Zhang et al., 2012). The number of vocabulary evaluated in the China Official International Chinese Proficiency Test, Hanyu Shuiping Kaoshi or HSK, ranged from 150 vocabularies for the lowest level (Level 1) to over 5000 vocabularies for the highest level (Level 6).

In the CFL setting, the main task in the teaching and learning of Chinese vocabulary is to cultivate the ability of foreign students in recognising, discriminating, choosing and using accurate words (Zhao, 2011). However, the logographic nature of Chinese characters makes the reading and

learning of the Chinese language more challenging, as discussed earlier. Studies on foreign languages showed that vocabulary acquisition is one of the biggest challenge faced by learners and generally vocabulary mistakes commonly involve the misuse of words, homonyms, non-standard vocabulary or even the wrong form of vocabulary are committed by learners and such mistakes are more frequent compared to grammar mistakes. Educators generally agreed that the proper use of vocabulary is more important than the use of grammar, in order to convey a message clearly and fluently (Jiang, 1998).

In the context of teaching meaning, Jiang (1998) noted that the teaching of vocabulary should include the definitional meaning, as well as the contextual meaning. Also, he proposed that the teaching of vocabulary should not be limited to the lexicographical meaning, but it should be related to the lexicon grammar and the contextual knowledge as well. Thus, it was suggested to use contextual teaching methodology in the teaching of vocabulary to CFL learners (Jiang, 1998). Likewise, Fang (2013) perceived vocabulary acquisition in CFL, as a process of matching a sound in the target language with the corresponding physical item in the world. Vocabulary acquisition in CFL is also associated with an idea. For example, Li (1924) suggested that a word was an idea or a concept in our mind to express something in the communication. Thus, in the teaching of CFL, the educators have to consider not only the "communication unit", but also

the needs of foreign learners in terms of the complete system of sound, strokes and stress that are depicted in the character. In addition to that, educators also have to take the learners' background knowledge into account when teaching vocabulary to CFL learners (Fang, 2013).

In another study regarding the ability to recognise or reading Chinese words as represented by Chinese characters, it is found that CFL learners performed better on character recognition tasks (reading Chinese script) compared to production tasks (writing Chinese script). It is found that the character density or the complexity of Chinese characters have an effect on production accuracy (Chin, 1973; Ke, 1996; McEwen, 2006). As put forward by Chin (1973) and Sergent and Everson (1992), character density affected recognition. Studies showed that CFL learners perform better with low-density characters compared to mid or high-density characters in recognition, production, and dictation tasks. In addition, CFL learners perform better with mid-density characters compared to high-density characters in dictation and production but not in recognition (McEwen, 2006; Xiao, 2002). In learning Chinese vocabulary as reflected by Chinese characters, partial information can lead to recognition, but total mastery of the character is required for accurate production (McEwen, 2006). Also, providing learners access to the pronunciation of characters or words through Pinyin may make for a better test design for assessing Chinese learners' vocabulary knowledge, irrespective of the

learners' backgrounds. Thus, it is proposed that written Chinese vocabulary knowledge tests should present target words in Pinyin together with characters (Zhang et al., 2017). In the same vein, Wang and Harris (2016) suggest that the use of Pinyin to type characters facilitate vocabulary recognition, while over-dependency on Pinyin to pronounce characters hinders the recognition process.

In a research investigating the relationship between deriving the phonetic codes and lexical meaning of Chinese words, Everson (1998) stated that "there is a very strong relationship between knowing a word's meaning and its pronunciation." In this aspect too, Everson's (1998) study indicated that when the respondents knew the meaning of a word, there was a mean probability of 91.4% that they also know how to pronounce it. Likewise, there are situations where respondents are able to identify the meaning of a word without knowing its pronunciation at an average of only 8.6% of the time. "In order for CFL learners to remember the characters, the learners are employing strategies that are in some way very reliant upon their ability to pronounce them" (Everson, 1998), suggesting that "ideographic" processing is not a primary strategy used among the learners.

In a recent research, Peggy et al. (2018) compared the orthographic effects of Chinese characters and Pinyin on lexical pronunciation with experienced learners. The study found that Pinyin was more beneficial for pronunciation perception in monosyllabic words (one-character words),

while pronunciation was better perceived in characters for disyllabic words (two-character words). A production experiment revealed a similar pattern. Additionally, low-performance learners were affected by orthographic differences of more than high-performance learners. In sum, the learning of CFL is a combination of tonal, pictographic and understanding of the standard system of romanized spelling or Pinyin that enables the CFL learners to master the language more effectively.

METHODS

Respondents and CFL Course

This exploratory study attempted to investigate the dependency of respondents on Pinyin to comprehend Chinese words and secondly, it probed to understand the word-learning strategy and challenges that CFL students faced in identifying the Chinese words' meanings. The study was carried out on 60 Level One Chinese course (LAC100) respondents in a public university in Malaysia. The CFL course is an optional course offered by the university.

This course covers 30 hours per semester, with two slots of two-hour lessons in a week. It caters for the students who have no prior Chinese knowledge. In this course, the learners are taught four skills, comprising of listening and speaking of the standard Chinese language, as well as reading and writing Chinese characters and Pinyin scripts. The LAC100 syllabus includes 10 topics in 20 lessons, and a total of 203 words are included in the *New Concept Chinese 1*, a CFL textbook published by Beijing Language and Culture University Press in 2017. The written scripts in this textbook are simplified Chinese characters and all the characters in the textbook are provided with the corresponding Pinyin.

The demographic profile of respondents is presented in Table 1. The respondents of this study ranged between the age of 20-23, consisting of 50 female students and 10 male students. The respondents consisted of 57 Malaysians and 3 non-Malaysians; 2 Japanese and 1 Indonesian. Most of the respondents spoke Malay (81.67%) as their first language, the percentage of respondents who spoke English, Japanese and Tamil as

Table 1
Demographic profile of respondents

Item	Sub-item	Frequency	Percentage (%)
1	Gender		
	Male	10	16.67
	Female	50	83.33
2	Nationality		
	Malaysian	57	95.00
	Non-Malaysian	3	5.00
3	First language		
	Malay	49	81.67
	English	2	3.33
	Japanese	2	3.33
	Tamil	2	3.33
	Others	5	8.33

their mother tongue was 3.33 % for each language. A total of 5 respondents spoke Dusun, Iban and Chinese dialect as their first language. The focus group interview consisted of 10 respondents, R2, R5, R11, R23, R24, R26, R30, R36, R37 and R51 who were selected for purposive sampling. The justification of interviewee selection will be explained in the Study Procedure section.

Study Instruments

The corpus for the test consists of 30 Chinese words (see Appendix A) taught to the respondents in the LAC100 class. Prior to the experiment, the respondents have been formally taught an approximate of 80 words. The words were selected randomly from *New Concept Chinese I*, with varied density (including simple characters and complex characters) and difficulty, in terms of the frequency of use in the texts and classroom. 30 words were listed in the Vocabulary Test (Test I & II) sheet in simplified Chinese character. Pinyin was not provided in Test I but it was provided in Test II.

The open-ended interview questions were provided to explore further the learning strategy and learning difficulties in learning the Chinese words. Based on the results of Test I and II, further interview questions were posed to the selected respondents, as follows:

- i. What method helps you to remember the Chinese words that you have studied?
- ii. Do you find it difficult to remember the Chinese characters? What are the challenges you face in

remembering the Chinese characters?

- iii. Does the Pinyin script assist you in knowing the meaning of the Chinese words?
- iv. What role does Pinyin play in helping you to learn Chinese vocabulary?
- v. Do you rely on Pinyin to comprehend the meaning of Chinese words?
- vi. How do you remember the meaning of Chinese words that you have learnt?
- vii. Given the choice between listening to the words and reading out the words, which one do you perform better? Why?
- viii. Do you think that learning Chinese vocabulary is difficult? If you consider learning Chinese as difficult, can you explain further why it is difficult for you?

Study Procedure

Phase 1. The 60 respondents (R1-R60) for the study were given a worksheet twice. The Vocabulary Test I sheet with 30 Chinese word corpus was distributed to the respondents in the classroom. The respondents were requested to write down the meaning of the 30 Chinese words in either English or Malay. The students were given 10 minutes to complete the test and the test sheets were collected.

Phase 2. In the second phase, the respondents (R1-R60) were provided with the same

vocabulary list with the 30 Chinese words as in Test I. In this second phase, Pinyin were provided for each word. The Test I and Test II sheets were marked and the score for the number of words answered accurately was documented. The answers were considered accurate if the meaning given by the respondents corresponds with the actual meaning of the Chinese words. The rating scale for a number of words answered accurately is shown in Table 2.

Table 2
Rating scale for a number of words answered accurately

Range Sub-item	Meaning Percentage (%)
26-30	Excellent
21-25	Very good
16-20	Good
11-15	Fair
6-10	Poor
≤ 5	Very poor

Upon the completion of both Test I and II, a total of 10 respondents were selected for interview. The selection was purposive sampling. It was made based on the results of Test I and Test II score. The respondents

who were selected for the focus group interview consisted of respondents who had a high score difference, moderate difference and least difference in their Test I and Test II. Each interview session took 10 to 15 minutes and each interviewee was asked 6 to 8 questions as provided in the interview guide.

RESULTS

Respondents' Dependency on Pinyin to Comprehend Meaning of Chinese Word

The numbers of words answered accurately in the vocabulary test refer to the number of appropriate meanings or the accurate corresponding equivalents provided in the Malay or English language for the Chinese words. The number of accurate lexical meaning provided by sample 1-60 corpus is shown in Appendix B.

Table 3 shows the number of words answered accurately by respondents in Test I (without the provision of Pinyin) and Test II (with the provision of Pinyin). The data showed that in general, the respondents performed better in Test II. Based on the number of words answered accurately in

Table 3
Comparison of the number of words answered accurately without and with Pinyin

No. of words answered accurately	Test I (Without Pinyin)		Test II (With Pinyin)	
	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
26-30	2	3.33	36	60.00
21-25	0	0	17	28.33
16-20	4	6.67	5	8.33
11-15	3	5.00	2	3.33
6-10	14	23.33	0	0
≤ 5	37	61.67	0	0
Total	60	100	60	100

Test I and II, most of the respondents were able to provide the accurate meaning of Chinese words with the provision of Pinyin. In Test I, a total of 61.67% of the respondents managed to give only 5 or less than 5 meanings of the Chinese words accurately. Another 23.33% of the respondents were able to provide the equivalents of 6-10 Chinese words accurately. The data also revealed that 2 respondents attained a score of 26-30 out of 30. The number of respondents with 26-30 accurate lexical meaning increased to 36 out of 60 in Test II. Another 28.33% of respondents attained a score of 21-25 accurate meanings to the Chinese vocabulary in Test II. The lowest score of the accurate answer in Test II fell within the 11-15 number of words range.

Table 4
Number of words answered accurately without and with Pinyin by 60 respondents

No.	Test	Number of words
1.	Test I (Without Pinyin)	349/1800
2.	Test II (With Pinyin)	1529/1800

Table 4 demonstrates the total number of words with the correct meaning given by 60 respondents in Test I (without the provision of Pinyin) and Test II (with the provision of Pinyin). There were only 349 (out of 1800) equivalents provided correctly by the respondents in Test I and it quadrupled to 1529 correct equivalents in Test II. In other words, the incorrect lexical meaning provided by the respondents decreased from 1451 in Test I to 271 in Test II. The data in Table 4 reflected the difference between the respondents' ability to giving the lexical

meaning of the Chinese words, with and without the provision of Pinyin. The finding showed that the respondents rely on Pinyin to comprehend the meaning of Chinese words.

Table 5
Comparison of mean, median, mode, max and min of words answered accurately

	No. of words answered accurately	
	Test I (Without Pinyin)	Test II (With Pinyin)
Mean	5.817	25.483
Median	4	27
Mode	2	27
Max	30	30
Min	0	14

The mean, median, mode, maximum and minimum of equivalents given accurately by the respondents will further explain the result of this study. As indicated in Table 5, the mean for the number of words answered accurately increased from 5.817 (without the provision of Pinyin) to 25.483 (with the provision of Pinyin). The average score of accurate equivalents written by the respondents in Test 1 is 5-6 out of 30 words. The average accurateness of equivalents almost quadrupled in Test II, where 25-26 of the equivalents out of the 30 given by the respondents were accurate. The mean for accurate equivalents given by the respondents in Test I and II showed a difference of 19.57, meaning that on average, the accurate equivalents escalated as high as 19-20 with the provision of Pinyin. Table 5 also indicates that the median of accurateness is lower than the mean (4) in Test I but higher than the mean

(26) in Test II. The frequency of occurrence (mode) of the number of words with accurate lexical meaning for Test I is 2, and it is increased to 28 in Test II. The maximum and a minimum number of equivalents written accurately showed that there were respondents providing 30 equivalents accurately in Test I and Test II, and there were also respondents who provided all 30 (out of 30) equivalents wrongly in Test I, but the number was reduced to 16 out 30 in Test II. The lowest score without and with the provision of Pinyin is 0 and 14 respectively.

Table 6 demonstrates the number of accurate lexical meaning given by respondents R2, R11, R23, R30, R37 and R51. The data revealed that there were three types of trends, based on the accurateness of the lexical meaning in Test I and II. R11 and R30 made the least difference, in terms of the number of accurate lexical meaning provided by them in Test I and II. The accurate equivalents provided by respondents R2 and R30 increased to 11 and 12 respectively. However, the number of accurate lexical meaning provided by respondents R37 and R51 showed a remarkable difference,

in which the accurateness increased to 25 and 30 words respectively in Test II. The data also revealed that the respondents who made the least difference in terms of their performance in Test I and II were the high scorers in both tests. Contrarily, low scorers made a prominent difference in providing the accurate lexical meaning of the Chinese words in Test II, when they were provided with Pinyin.

The Word Learning Strategy and Challenges Faced by Respondents in Comprehending Meaning of Chinese Words

In the interview session, the respondents R2, R5, R11, R23, R24, R26, R30, R36, R37, and R51 were called for interview individually. The samples were selected based on purposive sampling and from the 3 groups of achievers. Regarding the question on what enabled the respondents to remember the Chinese words and what are the challenges faced in remembering the Chinese words, most of the respondents mentioned that "Pinyin and the pronunciations" affected them. However, 2 of the respondents; R11 and R23 said that the Chinese words are not strange to them, as they have learnt Kanji

Table 6
Number of words answered accurately by some samples

No. of respondent	No. of words answered accurately		Difference
	Test I	Test II	
R2	19	30	+11
R11	27	29	+2
R23	30	30	+0
R30	2	14	+12
R37	3	28	+25
R51	0	30	+30

(Japanese logographic script) for years. The lexical meanings come into their mind automatically when they read the Chinese words. Additionally, they employed the “ideographic” strategy in the learning of Chinese words, meaning that both Kanji and Chinese words reflect meaning rather than sound.

For the question of Pinyin knowledge in assisting the identification of the meaning of Chinese words, the respondents generally gave a positive response. R11 and R23, however, noted that they needed Pinyin in order to know the pronunciation of the Chinese words, compared to apprehending the meaning. Other respondents, however, found that the written form of Pinyin facilitated in associating the Chinese words to its meaning.

The response to the question on the role of Pinyin indicated that the respondents agreed that the role of Pinyin was very much significant. According to the respondents, in the process of learning and knowing Chinese words, they firstly related Pinyin to the sound or pronunciation. The pronunciation was then related to the meaning of Chinese words. Only two respondents, R11 and R23 gave a relatively different answer. They found that the written form of Pinyin guided them on Chinese word articulation, whereas the sound form of pronunciation did not help them in knowing the meaning of words. They had to memorize the sound of words in order to get the meaning.

The comments by 5 respondents R5, R26, R36, R37 and R51 indicated the significance of Pinyin in assisting them

as they highlighted that it helped them to comprehend the meaning of the Chinese words and made the comprehension of meaning more “sensible” and “functional” to them. R2 and R24 reflected that they relied on Pinyin sometimes in order to get the lexical meaning. This, however, depends on the “familiarity of Chinese words to them”, although the “familiarity” varies, depending on the effort they have put in writing and reading of the Chinese words. The Japanese respondents (R11 and R23) stated that they relied on Pinyin to get accurate pronunciation but not to comprehend the lexical meaning of the Chinese words.

For the question on preference between listening and reading of words, all the respondents, except for R11 and R23 noted that they had better listening skill. The respondents expressed that “reading Chinese words is a challenging task”; “it is difficult to remember Pinyin or pronunciation of Chinese words” and “there are too many Chinese words to memorize”. For the respondents who were considered good, as in R11 and R23, they remarked that their listening and reading skill was equally good, but sometimes, the listening part is more challenging especially when the words are uttered softly and fast.

Generally, the respondents found that the learning of Chinese words was relatively good and several respondents (R2, R5, R24, R26, R37, and R51) expressed their interest in learning the Chinese language despite its demand for time in writing and reading practice (R2). R30 and R36 noted

that “Chinese is very difficult” as there are “too many Chinese words to memorize”. In particular, the main comment was that “it is very difficult to recognize and to remember Chinese words and their meanings”. Generally, the respondents, agreed that the learning of Chinese words is difficult as the Chinese script does not reflect the pronunciation. Hence, the process of learning involves a lot of memorizing and studying effort, which is challenging for them. Only two respondents R11 and R23 commented otherwise.

DISCUSSIONS

The mean and median of accurate meanings for the Chinese words given by respondents revealed that the respondents' ability to provide accurate equivalence for the Chinese words seems to be higher with the provision of Pinyin. The general data showed that most of the respondents were unable to recognise or know the meaning of Chinese words without the provision of Pinyin. This depicted that the respondents generally rely on Pinyin for the comprehension of lexical meaning. This finding concurs with Everson's (1998) study which highlighted that CFL learners were employing strategies that were very reliant on their ability to pronounce them. However, when respondents rely highly on pronunciation, this will have an impact on the recognition of Chinese characters. Wang and Harris (2016) also suggested that over-dependency on Pinyin to pronounce characters hinders the recognition of the characters.

Based on the interview findings, it is also evident that learners who have a similar logographic and tonal language, as in the case of the Japanese respondents who do not rely on Pinyin or pronunciation in comprehending lexical meaning. However, those who do not have similar writing form nor tonal affiliation to the language found Pinyin and pronunciation important in facilitating them to get the meaning of Chinese words. As in the case of Japanese writing (Kanji), there are similarities in the logographic form. On the other hand, the Malaysian and Indonesian respondents, whose first language is either Malay, English or Tamil do not have the logographic system. Therefore, they found it challenging to relate the logogram to the sound system of the language. This finding shed some light on the Chinese word learning strategies employed by logographic writing users and non-logographic writing users. It proved Everson's (1998) finding that ideographic processing is not a primary strategy among the non-logographic-based language learners, but it may be applicable to logographic-based language learners.

The interview findings, likewise also justified that the process of knowing Chinese words involves two processes, firstly, transferring Chinese words to Pinyin or pronunciation, and secondly, converting the pronunciation to meaning. As for the listening process, it involves only one process, which is translating Pinyin or pronunciation to meaning. This finding thus explained the reason why the respondents perceive reading task as relatively more challenging than the listening task.

CONCLUSION

In general, this study has shown that the high dependency of Pinyin to acquire the word meaning implies that more teaching and learning of word recognition should be imposed in the learning processes of CFL beginner-level classroom. It is also suggested that more practice of reading without Pinyin should be carried out during classes. In addition, this study indicated that the Chinese word learning strategy employed by logographic-based language learners and non-logographic-based language learners is different. The Malaysian university CFL learners, who are largely non-logographic-based language learners rely heavily on Pinyin to acquire the word meaning. This has pedagogical implications on the teaching of CFL, particularly in the Malaysian context. The CFL educators, particularly the CFL teachers in Malaysian university need to be cognizant of this language structure diversity used by the Malaysian university CFL learners. The distinctive nature of their first language writing system also affects the way they comprehend vocabulary meaning. Thus, it is proposed that more of such tasks and motivations be offered to the CFL learners, particularly the beginner-level learners so that they could overcome the “logographic” barrier in the process of learning Chinese vocabulary.

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REFERENCES

- Akiko. (2016). The role of phonology and phonetics in L2 Kanji learning. *Modern Language Journal*, 100(4), 880-897.
- Chin, T. (1973). Is it necessary to acquire writing in learning Chinese characters? *Journal of Teaching Chinese Language Association*, 8(3), 167-170.
- Cui, Y. H. (2017). *New concept Chinese I*. Beijing, China: Beijing Language and Culture University Press.
- Division of Academic and International Affairs. (2018). *A guide to language courses, School of Languages, Literacies and Translation*. Penang, Malaysia: Universiti Sains Malaysia.
- Everson, M. E. (1998). Word recognition among learners of Chinese as a foreign language: Investigating the relationship between naming and knowing. *The Modern Language Journal*, 82(II), 194-204.
- Fang, H. H. (2013). Renzhi yu duiwai Hanyu jiaoxue [Cognitive approach in teaching Chinese as a foreign language]. *Overseas Chinese Education*, 67(2), 139-145.
- Hayes-Harb, R., & Cheng, H. W. (2016). The influence of pinyin and zhuyin writing systems on the acquisition of Mandarin word forms by native English speakers. *Front Psychol*, 7(1), 1-13.
- Huang, X. L. (2009). *Teaching tips: TCSL- How to write down Chinese characters*. Retrieved August 29, 2014, from http://hrd.apec.org/index.php/Teaching_Tip:_TCSL_How_to_Write_Down_Chinese_Characters

- Jiang, X. (1998). Cihui xide yanjiu ji qi zai jiaoxueshang de yiyi [Vocabulary acquisition and its significance in teaching and learning]. *Language Teaching and Linguistic Studies*, 3(1), 65-73.
- Husin, K. H. (1998). *Pedagogi bahasa: Perkaedahan [Language pedagogy: Methodology]*. Kuala Lumpur, Malaysia: Kumpulan Budiman Sdn. Bhd.
- Ke, C. (1996). An empirical study on the relation between Chinese character recognition and production. *The Modern Language Journal*, 80(3), 340-349.
- Lee, P. L., & Jaganathan, P. (2014). Knowledge and perception of stroke orders among Chinese-as-a foreign language students in a Malaysian university. *International Journal of Education and Research*, 2(11), 147-160.
- Lee, P. L., & Chow, T. V. F. (2015). Malaixiya daxue duiwai Hanyu xuexizhe Hanyu yuyan taidu diaocha yanjiu [A study on the attitudes of learning Chinese as a foreign language among learners in a Malaysia university]. *The Science Education Article Collects*, 336(12), 32-34.
- Li, J. X. (1924). *Xinzhū guoyu wenfa [New Chinese grammar]*. Beijing, China: Commercial Press.
- McEwen, P. (2006). *Vocabulary acquisition in CFL (Chinese as a foreign language) context: a correlation of performance and strategy use* (Masters's thesis), Brogham Young University, United States.
- Nation, L. S. P. (2001). *Learning vocabulary in another language*. Cambridge, United Kingdom: Cambridge University Press.
- Peggy, P. K. M., Albert, L., Joanne, L. J. W., & Robert, B. X. (2018). Orthographic effects on the perception and production of L2 mandarin tones. *Speech Communication*, 101(1), 1-10.
- Sergent, W. K., & Everson, M. E. (1992). The effects of frequency and density on character recognition speed and accuracy by elementary and advanced 12 readers of Chinese. *Journal of the Chinese Language Teachers Association*, 27(2), 29-44.
- Shi, D. G., & Wang, Y. X. (1998). Guanyu duiwai Hanzi jiaoxue de diaocha baogao [A survey on teaching characters in teaching Chinese as a foreign language context]. *Language Teaching and Linguistic Studies*, 1(1), 36-45.
- Tan, T. G., & Hoe, F. T. (2017). A survey on Chinese characters learning strategies of Malay students in the Faculty of Engineering at a university in Malaysia. *Journal of Chinese Language Education*, 15(2), 16-30.
- Taylor, I., & Taylor, M. M. (1983). *The psychology of reading*. New York: Academic Press.
- Wang, J., & Harris, R. B. (2016). Effective learning strategies for the recognition of characters and words by learners of Chinese with varying proficiency in different learning environments. *Journal of the National Council of Less Commonly Taught Languages*, 20(1), 73-106.
- Wilkins, D. A. (1972). *Linguistics and language teaching*. London: Edward Arnold.
- Xiao, Y. (2002). The effect of character density on learning Chinese as a foreign language. *Journal of Chinese Language Teachers Association*, 37(1), 71-84.
- Xing, F. Y. (1996). *Hanyu yufa xue [Chinese grammar]*. Jilin, China: North East Normal University Press.
- Zhang, D. B., Lin, C. H., Zhang, Y. N., & Choi, Y. J. (2017). Pinyin or no pinyin: Does access to words pronunciation matter in the assessment of Chinese learners' vocabulary knowledge? *The Language Learning Journal*, 47(3), 344-353.
- Zhang, Q. (2009). *Tantan Hanzi bishun [The Stroke order of Chinese characters]*. Retrieved August 4, 2014, from: <http://www.5dhz.com/hanziliushu/wenzhang/tuijian/2009-05-06/249.html>

- Zhang, W. X., Lu, Y., & Li, X. Q. (2012). Jiyu kouyu yuliaoku de Hanyu kouyu zidonghua kaoshi cibiao de yanzhi [A corpus-based vocabulary lists study for automated test of spoken Chinese]. *The Journal of Modernization of Chinese Language Education*, 1(2), 37-44.
- Zhao, J. M. (2010). *Hanyu zuowei di'er yuyan yaosu jiaoxue [Teaching Chinese as a foreign language]*. Beijing, China: Beijing University Press.
- Zhao, J. M. (2011). *Duiwai Hanyu jiaoxue gailun [The principles and practice of teaching Chinese as a foreign language]*. Beijing, China: Shangwu Publisher.
- Zhao, Y. R. (1968). *Language and symbolic system*. Cambridge: Cambridge University Press.