

First Language Influence on Mandarin Vocabulary Learning among Malay Learners

^{*1}Lee Ai Chat (Prof. Madya, Dr.) ²Leona Kiu King Chieh, ³Wan Mohamad Iskandar Bin Haji Harun,
⁴Chong Ni Pei, ⁵Stephanie Tay Cin Wun, ⁶Hong Wei San, ⁷Tan Su Ling, ⁸Chia Jee Luen (Dr.)

^{1,2,3,4,5,6,7}Akademi Pengajian Bahasa, Universiti Teknologi MARA Shah Alam, Malaysia;

⁸Jabatan Pengajian Cina, Fakulti Sastera dan Sains Sosial, Universiti Malaya, Malaysia

***Corresponding Author**

DOI: <https://doi.org/10.47772/IJRISS.2026.102100021>

Received: 18 June 2026; Accepted: 30 June 2026; Published: 24 July 2026

ABSTRACT

While vocabulary learning strategies (VLS) in second and foreign language contexts have been widely investigated, limited attention has been given to how first language (L1) linguistic features shape VLS in third language (L3) learning, particularly among Malay learners of Mandarin. This study addresses this gap by examining the influence of Malay (L1) on Mandarin VLS use among Malay university students, and by comparing strategy use between high-proficiency (HPMS) and low-proficiency (LPMS) learners. This study adopted a qualitative research design involving semi-structured interviews with 30 informants (15 HPMS; 15 LPMS). Data were transcribed and analyzed using taxonomic analysis based on Nyikos and Fan's (2007) framework. Findings reveal that the syllable-based structure of Malay promotes the use of segmentation strategies, whereby learners break down Pinyin into smaller units. This influence is more pronounced among LPMS, who rely heavily on such strategies, whereas HPMS use them mainly at early stages before shifting to more advanced strategies. The study contributes to L3 acquisition research by demonstrating that L1 linguistic features shape VLS differently across proficiency levels. Pedagogical implications for Mandarin instruction in multilingual contexts are discussed.

Keywords: first-language influence; vocabulary learning strategies; Mandarin as L3; Malay learners; linguistic transfer

INTRODUCTION

Vocabulary knowledge is widely recognised as one of the most fundamental components of language proficiency and successful communication. In second and third language acquisition, vocabulary serves as the foundation upon which learners develop listening, speaking, reading, and writing skills. Without adequate vocabulary knowledge, learners often struggle to comprehend input, express ideas accurately, and participate effectively in communicative activities (Nation, 2022; Schmitt, 2019). As a result, vocabulary acquisition has become a central area of inquiry in language education research, particularly in relation to the strategies learners employ to acquire, retain, and retrieve lexical items. Over the past three decades, research has consistently demonstrated that vocabulary learning strategies (VLS) play a significant role in language achievement. Studies have shown that successful language learners tend to employ a wider repertoire of vocabulary learning strategies than less successful learners, enabling them to process, store, and retrieve lexical information more efficiently (Gu & Johnson, 1996; Fan, 2003; Schmitt, 1997). Consequently, vocabulary learning is no longer viewed as a simple process of memorising word meanings; rather, it is increasingly understood as a strategic and self-regulated learning process involving cognitive, metacognitive, memory, social, and affective dimensions (Oxford, 2017; Teng, 2023).

Recent developments in vocabulary research have further highlighted the importance of learner-related factors in shaping vocabulary learning behaviours. Self-regulation, motivation, learner beliefs, and linguistic

background have all been found to influence the selection and effectiveness of vocabulary learning strategies (Teng, 2023; Teng & Zhang, 2021). Among these factors, learners' first language (L1) has attracted increasing attention because it constitutes the primary linguistic system through which learners interpret and process new language information. Previous studies have shown that linguistic knowledge acquired through the first language often serves as a cognitive resource during the acquisition of additional languages, influencing both learning processes and learning outcomes (Jarvis & Pavlenko, 2008; Odlin, 1989).

The influence of the first language may be particularly significant in third language (L3) learning contexts. Unlike second language learners who rely primarily on one previously acquired language, L3 learners often draw upon multiple linguistic systems when processing new linguistic information (Cenoz, 2013; De Angelis, 2007). This multilingual interaction may facilitate learning through positive transfer, but it may also create challenges when substantial linguistic differences exist between the learner's known languages and the target language. Consequently, understanding how first-language characteristics shape vocabulary learning strategies is essential for explaining learner behaviour in multilingual learning environments.

The Malaysian higher education context offers a particularly valuable setting for investigating this issue. In Malaysia, Mandarin is increasingly studied by non-native learners due to the growing economic, cultural, and educational importance of China. Mandarin language courses are now widely offered in public universities as elective foreign language subjects, attracting large numbers of Malay students. For many of these learners, Mandarin represents a third language acquired after Malay as their first language and English as their second language. Learning Mandarin poses unique challenges because of the considerable linguistic distance between Malay and Mandarin. Malay employs an alphabetic writing system and exhibits relatively transparent syllable structures, whereas Mandarin utilises a logographic writing system, tonal phonology, and an isolating morphological structure (Norman, 1988; Packard, 2000). These differences may influence how Malay learners approach Mandarin vocabulary learning and the strategies they adopt when encountering unfamiliar lexical items.

Among Malay learners, one particularly interesting phenomenon concerns the tendency to segment Mandarin Pinyin into smaller units resembling Malay syllables. Such behaviour suggests the possible influence of first-language processing mechanisms during vocabulary learning. From a language transfer perspective, learners often rely on familiar linguistic patterns when confronted with unfamiliar language forms, especially during the early stages of language acquisition (Odlin, 1989; Ellis, 2008). Therefore, investigating how Malay linguistic characteristics influence Mandarin vocabulary learning strategies may provide valuable insights into the role of cross-linguistic influence in third language acquisition.

Although vocabulary learning strategies have been extensively researched, the existing literature remains heavily dominated by studies conducted in English as a Second Language (ESL) and English as a Foreign Language (EFL) context (Gu & Johnson, 1996; Fan, 2003; Schmitt, 2019). Comparatively fewer studies have examined vocabulary learning strategies in Mandarin language learning, particularly among learners whose first language differs substantially from Mandarin in terms of orthographic, phonological, and morphological characteristics. Existing studies on Mandarin vocabulary learning have largely focused on Chinese heritage learners, international students in China, or learners from East Asian linguistic backgrounds (Teng, 2023). Consequently, limited attention has been paid to Malay learners studying Mandarin as a third language in multilingual contexts such as Malaysia.

Furthermore, although previous research has acknowledged the importance of first-language influence in language learning, relatively few studies have examined how first-language linguistic characteristics shape the selection and use of vocabulary learning strategies. Most studies have focused on vocabulary learning outcomes rather than the strategic processes underlying vocabulary acquisition. As a result, little is known about the extent to which Malay linguistic features influence Mandarin vocabulary learning strategies and whether such influence varies according to learners' proficiency levels.

Another gap concerns differences between learners of varying proficiency levels. Previous research suggests that more proficient learners tend to employ a broader range of language learning strategies and demonstrate greater strategic flexibility than less proficient learners (Oxford, 1990; Nyikos & Fan, 2007). However,

empirical evidence examining proficiency-related differences in Mandarin vocabulary learning strategies among Malay learners remains scarce. Understanding these differences is important because it may reveal how learners gradually move from reliance on first language-based strategies toward more target-language-oriented approaches as their proficiency develops.

In response to these gaps, the present study investigates the influence of Malay as a first language on the vocabulary learning strategies employed by Malay university students learning Mandarin as a third language. Specifically, the study explores how linguistic characteristics of Malay shape Mandarin vocabulary learning strategies and examines differences in strategy use between high-proficiency Malay students (HPMS) and low-proficiency Malay students (LPMS). By focusing on the relationship between first-language influence, vocabulary learning strategies, and learner proficiency, this study seeks to contribute to the growing body of research on multilingual language learning and cross-linguistic influence.

Accordingly, the study addresses the following research questions:

RQ1: To what extent does Malay as a first language influence the use of Mandarin vocabulary learning strategies among Malay university students?

RQ2: What differences exist in the use of Mandarin vocabulary learning strategies between high-proficiency Malay students (HPMS) and low-proficiency Malay students (LPMS)?

LITERATURE REVIEW

Vocabulary acquisition has long been regarded as one of the most important dimensions of language learning. Regardless of whether a language is learned as a second, foreign, or additional language, learners require sufficient lexical knowledge to comprehend input and communicate effectively. Nation (2022) argues that vocabulary serves as the foundation of language proficiency because it directly affects learners' ability to understand spoken and written texts as well as their capacity to express ideas accurately. For this reason, vocabulary development continues to receive considerable attention in language education research.

Over the past three decades, researchers have increasingly recognised that vocabulary acquisition is not merely a process of memorising word meanings. Instead, learners actively employ various strategies to facilitate the learning, retention, and retrieval of lexical items. These strategies, commonly referred to as vocabulary learning strategies (VLS), have been found to influence the effectiveness of vocabulary acquisition and overall language achievement. Early studies demonstrated that successful learners often use a wider range of strategies and apply them more flexibly than less successful learners (Gu & Johnson, 1996; Schmitt, 1997). Similarly, Fan (2003) reported that learners who frequently employed appropriate vocabulary learning strategies tended to achieve better vocabulary outcomes. Such findings suggest that vocabulary acquisition involves not only exposure to language input but also learners' strategic engagement with lexical information.

As research in this area evolved, attention gradually shifted from identifying individual strategies to understanding the broader factors that shape strategy use. Recent scholarship has highlighted the importance of self-regulation, motivation, learner beliefs, and learning experiences in influencing vocabulary learning behaviour (Teng, 2023; Teng & Zhang, 2021). Vocabulary learning is now widely viewed as a dynamic process in which learners continuously adjust their strategies according to learning goals, task demands, and personal characteristics. Among these characteristics, linguistic background has emerged as an important yet relatively underexplored factor, particularly in multilingual learning environments.

The significance of linguistic background becomes increasingly apparent in the context of third language (L3) acquisition. Unlike second language learners who primarily rely on one previously acquired language, multilingual learners often draw upon multiple linguistic systems when learning an additional language. Existing knowledge from previously acquired languages may function as a valuable cognitive resource, enabling learners to interpret unfamiliar linguistic forms and develop new learning strategies (Cenoz, 2013; De Angelis, 2007). At the same time, this reliance on existing linguistic knowledge may also influence the ways learners process and organise new vocabulary.

This issue is particularly relevant to Mandarin language learning. In recent years, Mandarin has gained increasing prominence worldwide due to China's expanding economic and cultural influence. In Malaysia, Mandarin is widely offered as an elective language at tertiary institutions and attracts substantial numbers of non-native learners, especially Malay students. For many of these learners, Mandarin represents a third language acquired after Malay and English. Learning Mandarin, however, presents challenges that differ considerably from those encountered in learning alphabetic languages. The Chinese writing system is logographic, Mandarin pronunciation is tonal, and its morphological structure differs substantially from that of Malay (Norman, 1988; Packard, 2000). Consequently, Malay learners often encounter unfamiliar linguistic features that require them to develop effective strategies for vocabulary learning.

One perspective that offers valuable insights into this process is language transfer theory. According to Odlin (1989), learners frequently utilise knowledge from previously acquired languages when learning a new language. Such transfer may facilitate learning when similarities exist between languages, but it may also shape learners' perceptions and learning behaviours when substantial linguistic differences are present. Ellis (2008) further argues that learners tend to interpret new linguistic information through familiar cognitive frameworks developed from their earlier language experiences. This tendency is particularly evident during the initial stages of language learning when learners possess limited knowledge of the target language.

Contemporary discussions of language transfer extend beyond grammatical structures and pronunciation patterns. Cross-linguistic influence may also operate at cognitive and strategic levels, affecting how learners approach language learning tasks (Jarvis & Pavlenko, 2008). In the context of vocabulary acquisition, learners may unconsciously transfer learning habits and processing strategies developed through their first language. Such influence is especially likely when the first language remains the dominant linguistic system used in daily communication and formal education.

For Malay learners studying Mandarin, the linguistic distance between the two languages provides a useful context for examining this phenomenon. Malay belongs to the Austronesian language family and employs a Romanised alphabetic writing system characterised by relatively transparent sound-symbol correspondence. During literacy development, Malay speakers commonly learn to decode words through syllable-based processing. Mandarin, in contrast, belongs to the Sino-Tibetan language family and utilises a character-based writing system in which each character generally represents a syllable and morpheme. In addition, lexical meaning is heavily dependent on tonal distinctions. These structural differences suggest that Malay learners may rely on familiar first-language processing mechanisms when encountering Mandarin vocabulary, particularly during the early stages of learning.

Previous research has shown that learner proficiency plays an important role in determining strategy use. More proficient learners tend to employ a wider range of strategies and demonstrate greater flexibility in adapting strategies to different learning situations (Oxford, 1990; Nyikos & Fan, 2007). They are also more likely to utilise higher-order cognitive and metacognitive strategies that facilitate deeper lexical processing. In contrast, less proficient learners often depend on a smaller number of familiar strategies, particularly those associated with repetition, memorisation, and surface-level processing. Similar observations have been reported by Nirattisai and Chiramanee (2014), who found that learners with higher language proficiency generally demonstrated greater strategic diversity than their lower-proficiency counterparts.

Although the relationship between proficiency and strategy use has been documented in various language learning contexts, evidence remains limited in relation to Mandarin as a third language. Existing studies have largely focused on English language learning or on learners from linguistic backgrounds that differ considerably from the Malaysian context. Moreover, relatively few studies have investigated how first-language influence interacts with learner proficiency in shaping vocabulary learning strategies. Consequently, it remains unclear whether Malay learners with different levels of Mandarin proficiency rely on first language-based strategies to the same extent, or whether increased proficiency leads to greater strategic flexibility and reduced dependence on first-language processing mechanisms.

Viewed as a whole, previous studies indicate that vocabulary learning strategies are influenced by multiple factors, including learner proficiency, self-regulation, and linguistic background. Nevertheless, limited

attention has been devoted to understanding how specific linguistic characteristics of Malay influence vocabulary learning strategies among learners of Mandarin as a third language. Furthermore, the interaction between first-language influence and learner proficiency remains insufficiently explored. Addressing these issues is important not only for advancing understanding of multilingual language acquisition but also for informing pedagogical practices in Mandarin language education. Therefore, the present study investigates how Malay linguistic characteristics influence the vocabulary learning strategies employed by Malay university students learning Mandarin as a third language and examines whether such influence differs between high-proficiency and low-proficiency learners.

Theoretical Framework

The present study is grounded in three complementary theoretical perspectives, namely Language Transfer Theory (Odlin, 1989), Oxford's Language Learning Strategies Framework (1990), and Nyikos and Fan's (2007) Vocabulary Learning Strategies Model. Together, these frameworks provide a comprehensive explanation of how learners' first language influences the selection and use of vocabulary learning strategies in Mandarin as a third language (L3).

Language Transfer Theory (Odlin, 1989) serves as the primary theoretical foundation of this study. The theory proposes that learners draw upon linguistic knowledge acquired in their first language when learning an additional language. Such transfer may occur at various levels, including phonological, lexical, grammatical, and cognitive dimensions. When learners encounter unfamiliar linguistic features in a target language, they frequently rely on established linguistic knowledge and processing mechanisms derived from their first language. In the context of the present study, Malay learners may transfer syllable-based processing strategies commonly used in Malay literacy development when learning Mandarin vocabulary. This perspective provides a useful explanation for understanding how linguistic characteristics of Malay influence the selection of Mandarin vocabulary learning strategies.

While Language Transfer Theory explains the source of learners' strategic behaviour, Oxford's (1990) Language Learning Strategies Framework explains how learners manage and regulate their learning processes. According to Oxford, language learning strategies are deliberate actions employed by learners to facilitate language acquisition, improve retention, and enhance language use. These strategies include cognitive, metacognitive, memory-related, social, and affective dimensions. Oxford further argues that successful language learners typically demonstrate greater strategic flexibility and employ a wider range of learning strategies than less successful learners. This proposition is particularly relevant to the present study, which compares vocabulary learning strategies between high-proficiency Malay students (HPMS) and low-proficiency Malay students (LPMS).

To provide a more specific focus on vocabulary acquisition, the study also draws upon Nyikos and Fan's (2007) Vocabulary Learning Strategies Model. The model emphasises that vocabulary learning strategy use is influenced by multiple learner-related variables, including language proficiency, learning experiences, motivation, and learner voice. Importantly, Nyikos and Fan argue that more proficient learners tend to employ a broader repertoire of vocabulary learning strategies, whereas less proficient learners often rely on a narrower range of familiar strategies. This perspective provides a useful framework for examining differences in vocabulary learning strategy use between HPMS and LPMS.

Viewed collectively, these three frameworks provide a coherent explanation of how Malay learners approach Mandarin vocabulary learning. Language Transfer Theory highlights the influence of first-language linguistic features on learners' strategic choices, while Oxford's framework helps explain the learning behaviours adopted throughout the learning process. Nyikos and Fan's model complements these perspectives by illustrating how proficiency level shapes the selection and effectiveness of vocabulary learning strategies. Together, these perspectives form the conceptual foundation of the present study and offer a useful framework for examining the influence of Malay as a first language on Mandarin vocabulary learning. The proposed conceptual framework is illustrated in Figure 1.

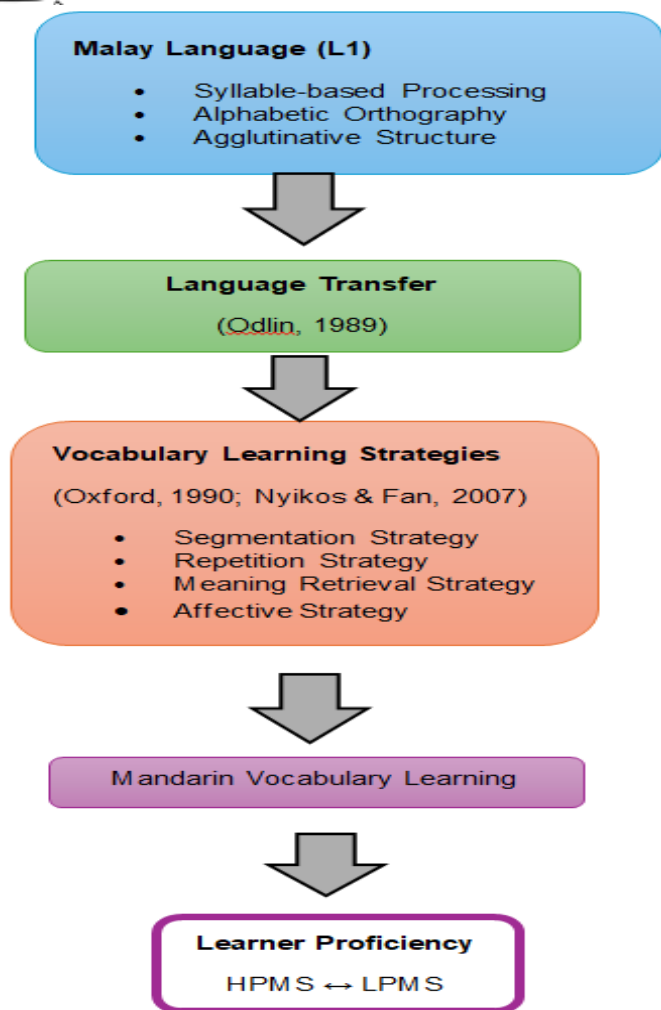


Figure 1 Conceptual Framework of First Language Influence on Mandarin Vocabulary Learning Strategies

(Adapted from Odlin's (1989) *Language Transfer Theory*, Oxford's (1990) *Language Learning Strategies Framework*, and Nyikos and Fan's (2007) *Vocabulary Learning Strategies Model*)

METHODOLOGY

This study adopted a qualitative research design to explore how Malay learners' first language influences the vocabulary learning strategies (VLS) they employ when learning Mandarin as a third language (L3). A qualitative approach was considered appropriate because the study sought to obtain an in-depth understanding of learners' experiences, perceptions, and strategic behaviours rather than to measure predetermined variables quantitatively. As the objective was to uncover how learners interpreted and utilised vocabulary learning strategies in relation to their linguistic background, semi-structured interviews were selected as the primary method of data collection.

The participants consisted of 30 Malay university students enrolled in Mandarin language courses at a Malaysian public university. To facilitate comparison across proficiency levels, the participants were divided into two groups: 15 high-proficiency Malay students (HPMS) and 15 low-proficiency Malay students (LPMS). Participants were selected through purposive sampling based on their Mandarin language proficiency and their willingness to participate in the study. This sampling technique was deemed suitable because it enabled the researcher to obtain information-rich cases capable of providing detailed insights into the phenomenon under investigation (Patton, 2015).

Data were collected through individual semi-structured interviews. Prior to the interviews, all participants were informed of the purpose of the study and invited to provide written informed consent. The interviews were conducted individually in locations that were convenient and comfortable for the participants, including

university library discussion areas and designated learning spaces. This arrangement was intended to encourage participants to share their experiences openly and minimise potential distractions during the interview sessions.

A semi-structured interview protocol was developed based on previous literature on vocabulary learning strategies and language transfer. The interview questions focused on learners' approaches to learning Mandarin vocabulary, the strategies they frequently employed, their perceptions of strategy effectiveness, and the extent to which their experiences with Malay influenced their vocabulary learning practices. The semi-structured format provided sufficient flexibility for participants to elaborate on their experiences while ensuring consistency across interview sessions.

All interviews were audio-recorded with participants' permission and subsequently transcribed verbatim. To protect participants' identities and maintain confidentiality, each transcript was assigned a unique identification code prior to analysis. The use of verbatim transcription ensured that participants' responses were preserved as accurately as possible and reduced the risk of researcher misinterpretation during the analytical process.

The interview data were analysed using taxonomic analysis. Following the procedures suggested by Spradley (1979), transcripts were examined repeatedly to identify recurring patterns, categories, and relationships among participants' responses. Statements reflecting similar concepts or learning behaviours were grouped under broader thematic categories representing different types of Mandarin vocabulary learning strategies. Attention was given to identifying evidence of first-language influence and differences between HPMS and LPMS. Through this process, patterns of strategy use were systematically organised and interpreted.

To complement the qualitative findings, descriptive frequency analysis was also conducted. The frequency of occurrence for each identified strategy was calculated and converted into percentages. This supplementary analysis provided a clearer overview of strategy preferences and facilitated comparison between the two proficiency groups. The integration of qualitative interpretation and descriptive frequency data enabled a more comprehensive understanding of learners' vocabulary learning behaviours.

Several measures were implemented to enhance the trustworthiness of the study. First, member checking was conducted whereby interview transcripts were returned to participants for verification. This procedure allowed participants to confirm the accuracy of the transcriptions and clarify any ambiguities in their responses. Second, all interview recordings, transcripts, coding notes, and analytical decisions were systematically documented to establish an audit trail. Third, repeated examination of the transcripts was undertaken throughout the analysis process to ensure consistency in coding and interpretation. Collectively, these procedures contributed to the credibility, dependability, and confirmability of the findings (Lincoln & Guba, 1985). In addition, ethical considerations were carefully observed throughout the study. Participation was entirely voluntary, and participants were informed that they could withdraw from the study at any stage without penalty. All information obtained during the interviews was treated confidentially and used solely for research purposes. Personal identifiers were removed from all transcripts and reports to protect participants' anonymity. In addition, informed consent was obtained prior to data collection, and all research procedures adhered to accepted ethical principles for research involving human participants.

Findings

The findings are presented according to the two research questions guiding the study. Table 1 summarises the differences in Mandarin vocabulary learning strategy use between high-proficiency Malay students (HPMS) and low-proficiency Malay students (LPMS).

Mandarin Vocabulary Learning Strategy	HPMS (n=15)	LPMS (n=15)
Segmentation strategy (L1-based strategy)	93.3%	100%
Repetition strategy	100%	13.3%

Meaning retrieval strategy	100%	0%
Affective strategy	93.3%	0%

Table 1 Differences in Mandarin Vocabulary Learning Strategies between HPMS and LPMS

Influence of Malay as a First Language on Mandarin Vocabulary Learning Strategies

Malay as a first language appeared to play a significant role in shaping the vocabulary learning strategies employed by both groups of learners. The most prominent strategy identified was the segmentation strategy, whereby learners divided Mandarin Pinyin into smaller syllabic units to facilitate pronunciation, comprehension, and memorisation. This strategy was reported by all LPMS participants (100%) and nearly all HPMS participants (93.3%). The widespread use of this strategy suggests that learners relied on cognitive processing mechanisms that closely resemble those used during Malay literacy development. As Malay employs a relatively transparent alphabetic writing system, learners are accustomed to decoding words through syllable-based segmentation. When confronted with unfamiliar Mandarin vocabulary, participants appeared to transfer this familiar processing approach to the target language. Such behaviour provides evidence of cross-linguistic influence operating at the strategic level rather than merely at the linguistic level.

This pattern was particularly evident in participants' descriptions of how they approached Mandarin vocabulary. One HPMS participant explained:

"...I usually break the word into smaller parts, just like syllables in Malay. For example, hongse is divided into hong and se. It becomes easier to understand, remember, and pronounce..." (HPMS 05)

Similarly, an LPMS participant stated:

"...I learn Mandarin words the same way I learned Malay spelling when I was young. I break them into smaller syllables so that I can understand and remember them more easily..." (LPMS 02)

These responses suggest that learners were not simply memorising vocabulary but were actively drawing upon prior linguistic knowledge when processing new lexical information. The finding supports the view that first-language influence extends beyond linguistic transfer and may also shape learners' strategic behaviour during vocabulary learning.

Differences between HPMS and LPMS in Vocabulary Learning Strategy Use

Although both groups demonstrated evidence of first-language influence, notable differences emerged in the range and complexity of strategies employed. LPMS participants relied almost exclusively on segmentation strategies, indicating a strong dependence on L1-based processing. Several participants explicitly reported that they were unaware of alternative methods for learning Mandarin vocabulary and viewed segmentation as their primary learning strategy. By contrast, HPMS participants demonstrated considerably greater strategic diversity. While most of them initially employed segmentation strategies, they subsequently incorporated additional approaches, including repetition, meaning retrieval, and affective strategies. The use of these supplementary strategies suggests that HPMS learners moved beyond reliance on first-language processing and developed more direct engagement with Mandarin vocabulary. Repetition strategies were employed by all HPMS participants but by only two LPMS participants. Similarly, meaning retrieval strategies, such as repeatedly recalling newly learned vocabulary without external prompts, were reported exclusively by HPMS participants. These strategies appear to involve deeper lexical processing and greater learner autonomy compared with segmentation alone.

Another noteworthy finding concerns the use of affective strategies. Fourteen HPMS participants reported experiencing a sense of satisfaction, pride, or enjoyment when successfully communicating in Mandarin. Such positive emotional experiences appeared to motivate further vocabulary learning and encourage continued

language use. In contrast, affective strategies were absent among LPMS participants. One participant described this experience as follows:

"...Sometimes I call my Chinese friend and use a few Mandarin words. When they praise me, I feel happy and motivated to learn more..." (HPMS 05)

This finding suggests that vocabulary learning among more proficient learners is influenced not only by cognitive processes but also by affective factors that sustain engagement and language use. The emergence of affective strategies among HPMS participants may reflect a higher degree of confidence and self-regulation in language learning.

Overall, the findings reveal a clear distinction between the two proficiency groups. While LPMS learners remained heavily dependent on L1-based segmentation strategies, HPMS learners demonstrated a broader strategic repertoire that included cognitive, memory-related, and affective dimensions. These differences suggest that increasing proficiency may be associated with reduced dependence on first-language processing mechanisms and greater strategic flexibility in Mandarin vocabulary learning.

DISCUSSION

The present study sought to understand how Malay as a first language influences Mandarin vocabulary learning strategies among Malay university students and whether such influence differs according to learner proficiency. The findings reveal that first-language influence remains highly visible in the vocabulary learning process, particularly through learners' reliance on segmentation strategies. However, the influence of the first language is neither static nor uniformly distributed across learners. Rather, its role appears to evolve alongside learners' developing proficiency and strategic awareness.

One of the most notable findings concerns the widespread use of segmentation strategies among both high-proficiency and low-proficiency learners. Most participants reported dividing Mandarin Pinyin into smaller units before attempting to pronounce, understand, or memorise unfamiliar vocabulary. Although this behaviour may initially appear to be a simple learning technique, it reflects a deeper cognitive process rooted in learners' prior linguistic experiences. Having acquired literacy through Malay, participants were already familiar with syllable-based decoding practices. When confronted with unfamiliar Mandarin vocabulary, many instinctively relied on this familiar approach to simplify the learning task and reduce cognitive burden.

This observation highlights the continuing influence of learners' first language in additional language learning. Rather than functioning solely as a source of interference, Malay appears to provide learners with a cognitive framework through which unfamiliar Mandarin vocabulary can be organised and processed. In this regard, first-language influence may be viewed as a resource that supports initial vocabulary acquisition. Such a perspective broadens traditional interpretations of language transfer by suggesting that transfer may occur not only at the linguistic level but also through the strategic behaviours learners adopt when engaging with new vocabulary. The findings therefore lend support to Odlin's (1989) proposition that prior linguistic knowledge continues to shape learning processes in additional language acquisition, while also echoing more recent discussions of cross-linguistic influence as a cognitive and strategic phenomenon (Jarvis & Pavlenko, 2008).

The importance of this finding becomes even more apparent when the substantial linguistic differences between Malay and Mandarin are considered. Malay employs an alphabetic writing system characterised by relatively transparent sound-symbol correspondence, whereas Mandarin relies on tonal distinctions and a logographic writing system that is unfamiliar to most Malay learners (Norman, 1988; Packard, 2000). Faced with these challenges, learners appear to utilise familiar first-language processing mechanisms as a means of bridging the gap between known and unfamiliar linguistic systems. Segmentation strategies therefore function as more than a pronunciation aid; they represent a practical cognitive tool that enables learners to navigate the complexities of Mandarin vocabulary learning.

While evidence of first-language influence was found across both proficiency groups, the findings also reveal important differences in the ways learners approached vocabulary learning. Participants in the low-proficiency

group relied almost exclusively on segmentation strategies and rarely reported using alternative approaches. Several participants openly acknowledged that they were unfamiliar with other vocabulary learning techniques, suggesting that their strategic repertoire remained relatively limited. For these learners, first-language-based strategies appeared to serve as the primary means of coping with unfamiliar vocabulary.

A different pattern emerged among high-proficiency learners. Although most of them also began by segmenting Mandarin vocabulary into smaller units, they subsequently incorporated repetition strategies, meaning retrieval strategies, and affective strategies into their learning routines. This suggests that increasing proficiency does not eliminate first-language influence. However, it reduces learners' dependence on it. As learners become more familiar with Mandarin, they appear increasingly capable of engaging with vocabulary through a wider range of learning strategies that operate beyond first-language support. This pattern aligns closely with Oxford's (1990) view that successful language learners tend to employ a broader and more flexible repertoire of learning strategies. It also resonates with Nyikos and Fan's (2007) argument that language proficiency is closely associated with strategic diversity. More importantly, the findings reflect recent perspectives on self-regulated vocabulary learning, which emphasise learners' gradual development of control over their own learning processes (Oxford, 2017; Teng, 2023).

The broader range of strategies employed by high-proficiency learners suggests not only greater linguistic competence but also a higher degree of strategic awareness and self-regulation. In other words, vocabulary learning development appears to involve more than the accumulation of lexical knowledge. It also entails the gradual expansion of learners' strategic capacity, enabling them to select, adapt, and combine learning strategies according to their needs and learning goals. From this perspective, the differences observed between the two proficiency groups may be understood as reflecting different stages of strategic development. Learners at lower proficiency levels tend to rely heavily on familiar first-language-based strategies because these strategies provide immediate cognitive support when dealing with unfamiliar vocabulary. As proficiency increases, however, learners gradually become more independent and capable of employing a wider range of cognitive, metacognitive, and affective strategies. The transition observed among high-proficiency learners therefore reflects increasing strategic flexibility rather than the complete abandonment of first-language influence.

Another noteworthy finding concerns the role of affective engagement in vocabulary learning. High-proficiency learners frequently described feelings of enjoyment, confidence, and satisfaction when communicating successfully in Mandarin. Positive interactions with Chinese-speaking friends and peers appeared to reinforce vocabulary learning and encourage continued language use. Such experiences were largely absent among low-proficiency learners, who tended to focus primarily on remembering and pronouncing words correctly. This suggests that vocabulary learning is not purely a cognitive process but is also shaped by learners' emotional experiences and perceptions of success. The emergence of affective strategies among high-proficiency learners further illustrates the interconnected nature of linguistic, cognitive, and motivational factors in language learning. Positive learning experiences appear to strengthen learners' confidence and willingness to use Mandarin, which in turn creates additional opportunities for vocabulary development. This observation is consistent with Dörnyei's (2005) argument that motivation and positive self-perceptions play an important role in sustaining language learning over time.

In short, the findings portray vocabulary learning as a dynamic process shaped by the interplay of first-language influence, learner proficiency, and strategic development. For Malay learners of Mandarin, the first language appears to serve as an important cognitive resource during the initial stages of learning, providing familiar mechanisms for processing unfamiliar vocabulary. As proficiency develops, however, learners gradually broaden their strategic repertoire and become more autonomous in regulating their learning. This progression suggests that first-language influence should not be viewed simply as either an advantage or an obstacle. Rather, it functions as a developmental resource whose role evolves as learners gain greater linguistic competence and strategic awareness. From this perspective, vocabulary learning in multilingual contexts is best understood as an adaptive process through which learners continuously draw upon, refine, and extend their existing linguistic resources while developing new ways of engaging with the target language.

CONCLUSION

This study examined the influence of Malay as a first language on Mandarin vocabulary learning strategies among Malay university students learning Mandarin as a third language. The findings reveal that first-language influence remains an important element in Mandarin vocabulary learning, particularly through learners' use of segmentation strategies that resemble the syllable-based processing commonly employed in Malay literacy practices. Although such influence was evident across both proficiency groups, important differences emerged in the ways learners approached vocabulary learning. Low-proficiency learners relied heavily on segmentation strategies and demonstrated relatively limited strategic diversity, whereas high-proficiency learners employed a broader range of strategies, including repetition, meaning retrieval, and affective strategies. These differences suggest that vocabulary learning development involves not only the acquisition of linguistic knowledge but also the gradual expansion of learners' strategic capacity.

The study contributes to the growing literature on cross-linguistic influence and third language acquisition by demonstrating that first-language influence extends beyond linguistic structures and may shape learners' strategic behaviour during vocabulary learning. While previous studies have often focused on language transfer at the phonological, lexical, or grammatical levels, the present findings indicate that transfer may also occur through the cognitive and strategic processes learners employ when engaging with unfamiliar vocabulary. The findings further support the view that learner proficiency is closely associated with strategic flexibility, suggesting that first-language influence and strategy development should be understood as interconnected rather than independent processes. The findings also extend recent discussions on self-regulated vocabulary learning by demonstrating that increasing proficiency is accompanied by greater strategic awareness, flexibility, and learner autonomy.

Beyond its theoretical contributions, the study also offers practical insights for Mandarin language education in multilingual settings. The findings suggest that learners' first-language knowledge should not necessarily be viewed as an obstacle to learning. Instead, it may serve as a useful cognitive resource during the early stages of vocabulary acquisition. For educators, this highlights the value of recognising learners' existing linguistic resources while gradually encouraging the use of a wider range of vocabulary learning strategies. Vocabulary instruction may therefore benefit from moving beyond the teaching of word meanings and pronunciation to include explicit strategy awareness and strategy training activities. Likewise, curriculum developers may consider integrating vocabulary learning strategies more systematically into Mandarin language programmes, particularly for learners studying Mandarin as a third language.

The findings also carry implications for learners themselves. More proficient learners in this study were distinguished not by the absence of first-language influence, but by their ability to move beyond reliance on a single strategy and adopt a wider repertoire of learning approaches. This suggests that successful vocabulary learning involves developing greater strategic awareness, flexibility, and self-regulation over time. Encouraging learners to reflect on how they learn vocabulary and to experiment with different strategies may therefore support more effective and sustainable language learning.

However, this study has several limitations. First, it involved a relatively small sample drawn from a single Malaysian public university, which may limit the transferability of the findings to other learning contexts. Second, the findings were based primarily on self-reported interview data and therefore reflect learners' perceptions of their strategy use. Future studies could incorporate classroom observations, learning journals, or think-aloud protocols to provide a more comprehensive understanding of vocabulary learning behavior. Comparative studies involving learners from different linguistic backgrounds and educational settings may provide further insights into how first-language characteristics shape vocabulary learning strategies across multilingual contexts.

In conclusion, the findings of this study suggest that vocabulary learning is a dynamic and evolving process shaped by the interplay of first-language influence, learner proficiency, and strategic development. For Malay learners of Mandarin, the first language serves as an important cognitive resource during the initial stages of learning, while increasing proficiency is associated with greater strategic flexibility, self-regulation, and learner autonomy. A deeper understanding of this evolving relationship may contribute not only to more

effective pedagogical approaches to Mandarin language teaching and learning, but also to broader discussions of how learners draw upon existing linguistic resources when acquiring additional languages in multilingual settings.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the support of the Akademi Pengajian Bahasa (APB), Universiti Teknologi MARA (UiTM) Shah Alam, through the APB-LEAPS Special Publication Project 2026 and the APB-WOW Break Program. The authors also thank all participants for their valuable contributions to this research.

REFERENCES

1. Cenoz, J. (2013). Defining multilingualism. *Annual Review of Applied Linguistics*, 33, 3–18. <https://doi.org/10.1017/S026719051300007X>
2. De Angelis, G. (2007). Third or additional language acquisition. *Multilingual Matters*. <https://doi.org/10.21832/9781847690052>
3. Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum Associates
4. Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford University Press.
5. Fan, M. Y. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. *The Modern Language Journal*, 87(2), 222–241. <https://doi.org/10.1111/1540-4781.00187>
6. Gu, Y., & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning*, 46(4), 643–679. <https://doi.org/10.1111/j.1467-1770.1996.tb01355.x>
7. Jarvis, S., & Pavlenko, A. (2008). *Crosslinguistic influence in language and cognition*. Routledge. <https://doi.org/10.4324/9780203935929>
8. Jessner, U. (2008). A DST model of multilingualism and the role of metalinguistic awareness. *The Modern Language Journal*, 92(2), 270–283. <https://doi.org/10.1111/j.1540-4781.2008.00718>
9. Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
10. Nation, I. S. P. (2022). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/9781009093875>
11. Nirattisai, S., & Chiramanee, T. (2014). L2 vocabulary learning strategies of Thai high school students. *International Journal of Language and Linguistics*, 2(3), 147–155.
12. Norman, J. (1988). *Chinese*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139167712>
13. Nyikos, M., & Fan, M. (2007). A review of vocabulary learning strategies: Focus on language proficiency and learner voice. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 251–273). Oxford University Press.
14. Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge University Press.
15. Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Newbury House.
16. Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in context* (2nd ed.). Routledge. <https://doi.org/10.4324/9781315206754>
17. Packard, J. L. (2000). *The morphology of Chinese: A linguistic and cognitive approach*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511486243>
18. Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Sage Publications.
19. Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 199–227). Cambridge University Press.
20. Schmitt, N. (2019). Understanding vocabulary acquisition, instruction, and assessment: A research agenda. *Language Teaching*, 52(2), 261–274. <https://doi.org/10.1017/S0261444819000053>
21. Spradley, J. P. (1979). *The ethnographic interview*. Holt, Rinehart and Winston.
22. Teng, F. (2023). *Self-regulated learning and vocabulary acquisition in second language learning*. Springer. <https://doi.org/10.1007/978-981-19-7982-8>

-
23. Teng, F., & Zhang, D. (2021). The associations between self-regulation, vocabulary knowledge, and reading comprehension. *Language Teaching Research*, 25(4), 1–21.
<https://doi.org/10.1177/1362168820912338>
24. Teng, F., & Zhang, D. (2021). The associations between self-regulation, vocabulary knowledge, and reading comprehension. *Language Teaching Research*, 25(4), 1–21.
<https://doi.org/10.1177/1362168820912338>