Influence of Environment on Language Learning Strategies Among University Students in Thailand and Vietnam

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ABSTRACT

Language learning strategies (LLS) play a crucial role in enhancing students' ability to acquire a new language. This study explores the impact of environmental factors on the use of LLS among university students in Thailand and Vietnam mostly enrolled in Mandarin language programs. By examining how different educational experiences shape learners' strategic approaches to language proficiency, the study provides insights into optimizing learning environments. This research adopts a quantitative survey approach, utilizing a 41-item Likert-scale questionnaire divided into four sections: demographics, cognitive strategies (19 items), metacognitive self-regulation (11 items), and resource management strategies (11 items). A purposive sample of 421 Thailand and Vietnam university students participated in the study. Findings indicate that environmental factors significantly influence students' selection and use of LLS, particularly in environment factors strategies (resource management strategies) and person factors strategies (metacognitive strategies). The study highlights the importance of tailored pedagogical approaches to improve language learning outcomes. Implications suggest that educators and policymakers should consider environmental influences when designing language learning programs to enhance student motivation and strategic engagement.

Keywords: Language Learning Strategies (LLS), Environmental Factors, Language Learning Strategies, Resource Management Strategies.

INTRODUCTION

Background of Study

Language learning strategies (LLS) have long been recognized as essential facilitators for language learners, helping them acquire a new language. These strategies include cognitive, metacognitive, and resource management techniques that learners employ to optimize their language learning efforts. Unlike early language acquisition, teacher-specific strategies can be enhanced by initiatives aimed at fostering conducive classroom environments where they may be more effectively implemented.

According to national initiatives introduced by Thailand and Vietnam for foreign language education, the number of students learning Mandarin has increased significantly (Lan & Qian, 2024; Xiao & Tian, 2024; Kanoksilapatham, 2011). This trend underscores the growing importance of Mandarin education in these two countries. While numerous studies have examined language learning strategies for English, research on LLS in Mandarin learning remains limited.

Therefore, this study aims to explore the impact of environmental factors on university students' use of LLS in Mandarin learning. It examines 421 participants enrolled in language programs in Thailand and Vietnam, the

majority of whom are studying Mandarin. This demographic provides a valuable foundation for investigating how diverse educational experiences influence students' strategic approaches to foreign language proficiency.

This research is particularly significant because Mandarin has become one of the predominant second/foreign languages in Southeast Asia. Understanding how environmental factors affect the use of language learning strategies can provide insights for educators and policymakers in addressing this issue. The study seeks to contribute to identifying the ways in which environmental influences shape language learning.

Statement of Problem

Language learning strategies (LLS) serve as essential mechanisms that enable learners to optimize their language acquisition through cognitive, metacognitive, and resource management techniques. In an ideal learning environment, students can effectively employ these strategies, leading to enhanced proficiency and confidence in using a foreign language. A well-structured educational framework should provide the necessary support to cultivate strategic learning behaviours and improve overall language competence (Noor Saad & Md Yunus, 2015; Spolsky, 1989).

Several studies have examined LLS among students of English, Arabic, and Mandarin in Malaysian universities, yielding divergent findings. For instance, Rahim et al. (2024) identified cognitive learning strategies as the most frequently employed, whereas Raffi et al. (2023) reported that metacognitive strategies were the predominant approach among learners. Additionally, research by Neo et al. (2024) and Fakhruddin et al. (2024) concluded that resource management strategies were the most commonly utilized. These inconsistencies suggest that the use of LLS may vary based on contextual and environmental factors, highlighting the need for further investigation.

This study aims to examine the LLS most frequently employed by language learners in Thailand and Vietnam, focusing on environmental, personal, and resource management strategies. By identifying the environmental factors that influence LLS adoption, this research seeks to address gaps in the existing literature and contribute to the development of more effective, context-sensitive language learning practices. The findings will provide valuable insights for educators, policymakers, and curriculum designers, facilitating the creation of learning environments that support strategic language acquisition and enhance learner outcomes in diverse educational settings.

Objective of the Study and Research Questions

This study is done to explore perception of learners on their use of learning strategies. Specifically, this study is done to answer the following questions:

- How do learners perceive their environment in learning?
- How do learners perceive their behaviour in learning?
- How do learners perceive their personal components in learning?
- Is there a relationship between all components in learning?

LITERATURE REVIEW

Theoretical Framework

Social Cognitive Theory for Learning

Social Cognitive Theory (SCT) for learning emphasizes the role of social interactions, observational learning, and self-efficacy in shaping how individuals acquire and apply knowledge. Below, we explore key contributions from leading experts in this field and synthesize their perspectives to provide a comprehensive understanding of SCT for learning.

Albert Bandura, the originator of Social Cognitive Theory, argued that learning occurs through observing others and modelling their behaviours, attitudes, and outcomes. Bandura (1986) introduced the concept of reciprocal

determinism, which posits that learning is influenced by the dynamic interplay of personal, behavioural, and environmental factors. His work emphasized self-efficacy as a core component of SCT, suggesting that an individual's belief in their capability to succeed significantly impacts their motivation and learning outcomes.

Zimmerman (2000), building on Bandura's foundation, highlighted the role of self-regulated learning (SRL) within SCT. He argued that self-regulated learners actively plan, monitor, and adjust their learning strategies, demonstrating a high degree of agency. Zimmerman's research demonstrated that students with strong self-regulatory skills perform better academically, as they are more adept at leveraging observational learning and feedback.

Schunk (1991) explored the implications of SCT in educational settings, focusing on the relationship between self-efficacy and academic achievement. Schunk's studies revealed that students with higher self-efficacy are more likely to persist in challenging tasks and employ effective learning strategies. He also emphasized the importance of goal setting and feedback in fostering self-efficacy and, consequently, learning outcomes.

Miller and Dollard (1941) laid the groundwork for Bandura's later work by discussing observational learning as a mechanism for acquiring new behaviours. They introduced the idea that reinforcement and imitation play critical roles in learning, which Bandura later expanded into the broader framework of SCT.

The experts above collectively illustrate the multifaceted nature of Social Cognitive Theory for learning. Bandura's foundational work established the importance of reciprocal determinism and self-efficacy, providing a robust framework for understanding how individuals learn through observation and interaction with their environment. Zimmerman extended this framework by incorporating self-regulation, highlighting how learners' agency and strategy use to enhance their academic performance. Schunk's emphasis on self-efficacy and goal setting further enriched SCT by linking motivational constructs to learning outcomes. Meanwhile, the earlier contributions of Miller and Dollard underscore the foundational role of observational learning in SCT.

Based on these insights, Social Cognitive Theory for learning can be understood as a holistic model that integrates cognitive, social, and behavioural dimensions of learning. It underscores the importance of self-efficacy, observational learning, and self-regulation as critical factors in academic success. Educators can leverage SCT by fostering environments that promote modelling, provide constructive feedback, and cultivate students' belief in their abilities. This approach not only enhances learning outcomes but also equips students with lifelong skills for adapting to diverse learning contexts.

Language Learning Strategies

Wenden and Rubin (1987) explore the various strategies language learners use to enhance their acquisition process, categorizing them into cognitive, metacognitive, and social-affective strategies. Cognitive strategies involve direct interaction with the language, such as note-taking and summarization, while metacognitive strategies focus on planning, monitoring, and evaluating one's learning progress. Social-affective strategies include seeking clarification, collaborating with peers, and managing emotions to reduce anxiety.

Oxford (1990) expands on Wenden and Rubin's ideas with a more detailed classification and provides a comprehensive framework for understanding and teaching language learning strategies, categorizing them into six types: memory, cognitive, compensation, metacognitive, affective, and social strategies.

Pintrich (2004) research on self-regulated learning (SRL) highlights the role of metacognition, motivation, and behavioural regulation in effective learning strategies. Pintrich argues that self-regulated learners actively plan, monitor, and assess their learning processes. His model underscores the cyclical nature of learning, where learners adapt strategies based on feedback and outcomes. Zimmerman (2002) social cognitive theory situates learning strategies within the broader framework of reciprocal determinism—the interplay between personal, behavioural, and environmental factors. He identifies goal setting, self-efficacy, and self-reflection as pivotal components of effective learning strategies. Zimmerman's work is particularly valuable for understanding how external factors, such as peer influence and instructional design, shape strategy use.

This study is grounded in social cognitive theory (Bandura, 1986; Zimmerman, 2002), which emphasizes the

interaction between personal, behavioural, and environmental factors in learning. It also draws upon cognitive, metacognitive, and social-affective approaches (Wenden & Rubin, 1987; Oxford, 1990) that highlight the strategic role of learners in managing their language acquisition. Additionally, Pintrich's (2004) theory of self-regulated learning underscores the importance of metacognition, motivation, and behavioural adaptation. By integrating these perspectives, the conceptual framework of this study provides a comprehensive understanding of how learners employ strategies to regulate their learning, interact with their environment, and enhance their overall language proficiency.

Past Studies

Numerous studies have explored the role of environmental factors in shaping LLS among students. These studies highlight the interaction between learners' environments, their strategic approaches, and their overall language proficiency.

The Influence of Learning Environment on Language Learning Strategies

Zhang (2023) investigates the impact of various learning environments on English language acquisition. The study highlights that the learning environment, including its physical, social, and cultural aspects, significantly affects English learning outcomes. By reviewing literature and analysing empirical data, Zhang concludes that while classroom teaching is essential, the external learning environment also plays a crucial role in language acquisition.

Dong and Chow (2022) conducted a meta-analysis on the influence of the home literacy environment (HLE) on second language acquisition. Their findings indicated that parental literacy teaching behaviours had a stronger impact on children's ESL abilities compared to parental beliefs or the availability of learning resources. This study highlights the role of family engagement in fostering effective language learning strategies.

Wagley et al. (2022) focus on the bilingual home environment and its effects on children's literacy in Spanish and English. They provide evidence that both language-general and language-specific skills contribute to literacy development. Regular use of Spanish at home positively influences Spanish language and reading skills without hindering English language development. The study reveals that bilingualism, and its related home environment positively affect literacy outcomes in both languages.

Finders, Wilson, and Duncan (2023) explored the influence of early childhood language environments on language learning strategies. They argued that high-quality early learning experiences, particularly in structured educational settings, play a critical role in shaping language acquisition. Their research emphasized the need for systematic language environment assessments to ensure equitable learning opportunities and strategy development for young learners.

Language Learning Strategies

Kojic-Sabo and Lightbown (1999) conducted a comparative study on the differences in LLS adoption among learners from different cultural backgrounds. Their research demonstrated that students from collectivist cultures, such as those in Southeast Asia, relied more on social and resource management strategies, whereas learners from individualistic cultures, such as those in Western countries, tended to favour metacognitive and cognitive strategies. These findings highlight the necessity of context-sensitive pedagogical approaches to LLS training.

Phakiti (2003) investigated the impact of educational culture on strategy preference among Thai and Vietnamese learners of Mandarin. His study found that Vietnamese students, who are accustomed to rote memorization due to their educational traditions, preferred cognitive strategies, while Thai students, who experienced more interactive teaching methods, showed a higher tendency to use social and affective strategies.

Habók and Magyar (2018) analysed the effects of LLS on language proficiency, attitudes, and school achievement among lower secondary students in Hungary. Their study demonstrated that metacognitive strategies played a dominant role in influencing foreign language attitudes and proficiency. The findings also highlighted the impact of foreign language marks on overall academic achievement, suggesting that LLS have

far-reaching implications beyond language learning itself.

Kalati (2016) examined the significance of learning strategies in second language acquisition. His study highlighted the crucial role of students' awareness and application of learning strategies in enhancing their comprehension and problem-solving abilities. Kalati emphasized that students who actively use structured learning strategies perform better in language acquisition, underscoring the need for effective instructional interventions.

The reviewed studies collectively indicate that environmental factors, including institutional support, cultural background, bilingualism, home literacy environments, and early childhood education, significantly influence students' choice and effectiveness in using LLS. Specifically, interactive and immersive environments tend to enhance the use of social and metacognitive strategies, while structured academic programs promote cognitive and self-regulatory strategies. However, most of the studies on environmental factors focus on children, whereas our study examines adults. These insights are crucial for educators and policymakers aiming to design effective language programs. By considering the environmental aspects that shape LLS adoption, institutions can foster more strategic and autonomous language learners.

Conceptual Framework

Learners' success in language learning is highly dependent on their environment. However, having a conducive environment is not sufficient; learners must also know how to manage it effectively. According to Wenden and Rubin (1987), learners need to employ strategies for environmental management and effort management. Additionally, the use of help-seeking strategies is essential for successful learning. Learners utilize various strategies to manipulate learning materials and facilitate their learning.

Figure 1 illustrates the conceptual framework of this study, which is rooted in Bandura's (1986) social cognitive theory and Wenden and Rubin's (1987) learning strategies. This study explores learners' use of learning strategies (Wenden & Rubin, 1987) through the lens of social cognitive theory (Bandura, 1986). Bandura (1986) asserts that learning is influenced by the environment, which interacts with a person's characteristics to shape their behaviour. Bandura's (1986) learning components are integrated with Wenden and Rubin's (1987) and Pintrich et al. (1991) learning strategies, forming the framework presented in Figure 1.

In this framework, learning involves the environment, where learners employ resource management strategies. Next, the learner (Person) regulates their learning through metacognitive self-regulation. Finally, learning is enhanced when learners refine their behaviour through cognitive components.

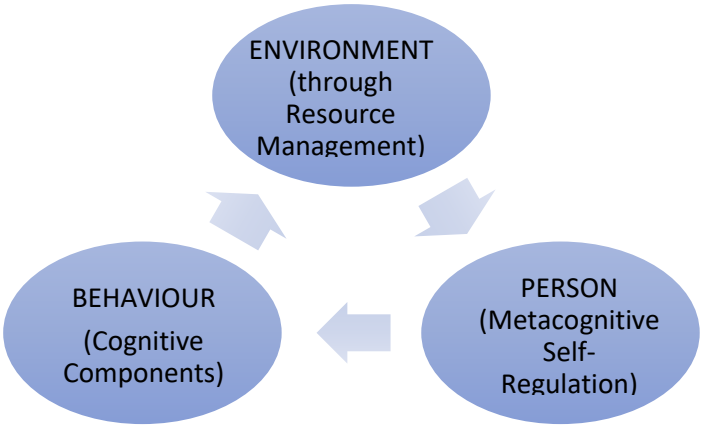


Figure 1- Conceptual Framework of the Study Influence of Environment on Language Learning Strategies

METHODOLOGY

This quantitative study was conducted to explore the motivational factors for learning among undergraduates. A

purposive sample of 421 participants responded to the survey. The instrument used was a five-point Likert scale survey, grounded in Pintrich et al. (1991), to identify the variables presented in Table 1 below.

The survey consisted of four sections. Section A included items on demographic profiles. Section B contained 19 items related to cognitive components. Section C comprised 11 items on metacognitive strategies. Section D featured 11 items on resource management. To ensure clarity and accuracy in responses, the survey was translated into Thai and Vietnamese, thereby minimizing potential comprehension issues that could affect participants' answers. The survey was administered using Google Forms, and the collected data were analysed using SPSS 29.

Table 1- Distribution of Items in the Survey

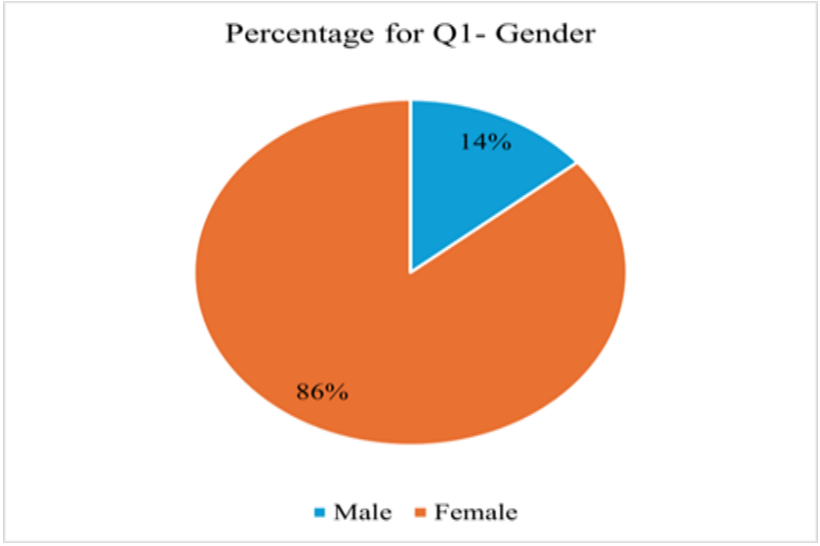
	Component	Strategy (Keyword)		Sub-Strategy			
B	Behaviour	Cognitive Components	(a)	Rehearsal	4	19	.940
			(b)	Organization	4		
			(c)	Elaboration	6		
			(d)	Critical Thinking	5		
C	Person	Metacognitive Self-Regulation				11	.897
D	Environment	Resource Management	(a)	Environment Management	5	11	.836
			(b)	Effort Management	4		
			(c)	Help-Seeking	2		
						41	.955

Table 1 also presents the reliability of the survey. The analysis indicates a Cronbach's alpha of .940 for Cognitive Components, .897 for Metacognitive Self-Regulation, and .836 for Resource Management. The overall Cronbach's alpha for all 41 items is .955, demonstrating high reliability of the chosen instrument. Further analysis using SPSS was conducted to present findings that address the research questions of this study.

FINDINGS

Findings for Demographic Profile

Figure 2- Percentage for Q1- Gender



The data in Figure 2 shows that 14% of the respondents are male students and 86% are female students.

Figure 3- Percentage for Q2- Age Group

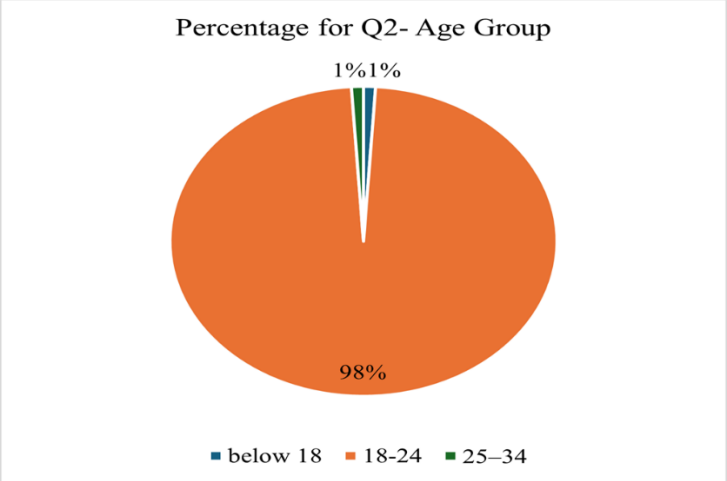


Figure 3 shows that almost all of the respondents, 98% of them are between 18 years old to 24 years old. There is only 1% of respondents are below 18 years old and also 1% of them are above 24 years old.

Figure 4- Percentage for Q3- Year of Study

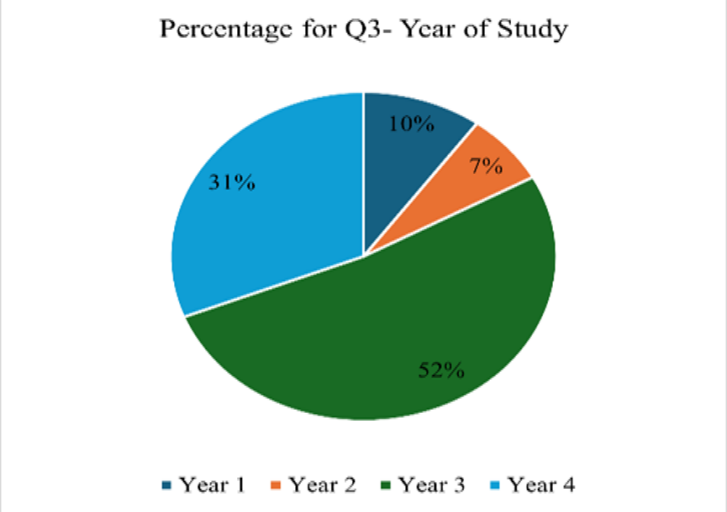


Figure 4 shows that more than half of the respondents are students in their Year 3 which is 52%. 31% of them are Year 4 students, 10% of the respondents are Year 1 students and only 7% of them are Year 2 students.

Figure 5- Percentage for Q4- Programme

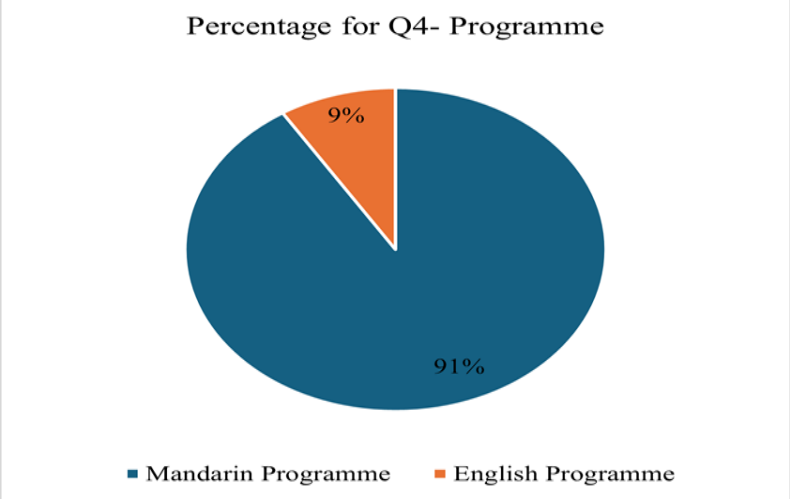


Figure 5 clearly shows that 91% of the respondents are from Mandarin language programme and 9% of them are from English language programme.

Findings for Environment

This section presents data to answer research question 1- How do learners perceive their environment in learning? In the context of this study, this is measured by resource management through (i) environment management, (ii) effort management and (iii) help-seeking.

Figure 6- Mean for (i) Environment Management (5 items)

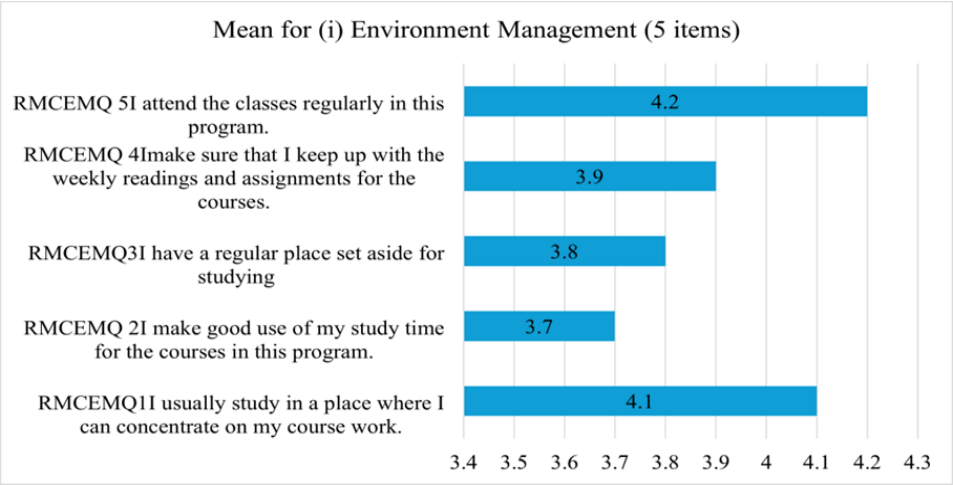


Figure 6 presents the results for environment management, revealing that learners generally hold positive perceptions of their learning environment, with mean scores ranging from 3.7 to 4.2 across the five items. The highest mean score RMCEMQ5 (M=4.2) was observed for regular class attendance, indicating that learners prioritize attending classes as a key component of their environment management strategies. Furthermore, learners reported a strong tendency to study in a conducive environment that supports concentration RMCEMQ1 (M=4.1). However, slightly lower scores were noted for time management RMCEMQ2 (M=3.7) and maintaining a regular study space RMCEMQ3 (M=3.8), suggesting potential areas for improvement. Overall, learners demonstrate a proactive approach to managing their learning environment, particularly concerning maintaining consistency in coursework and attendance, which are critical factors for academic success.

Figure 7- Mean for (ii) Effort Management (4 items)

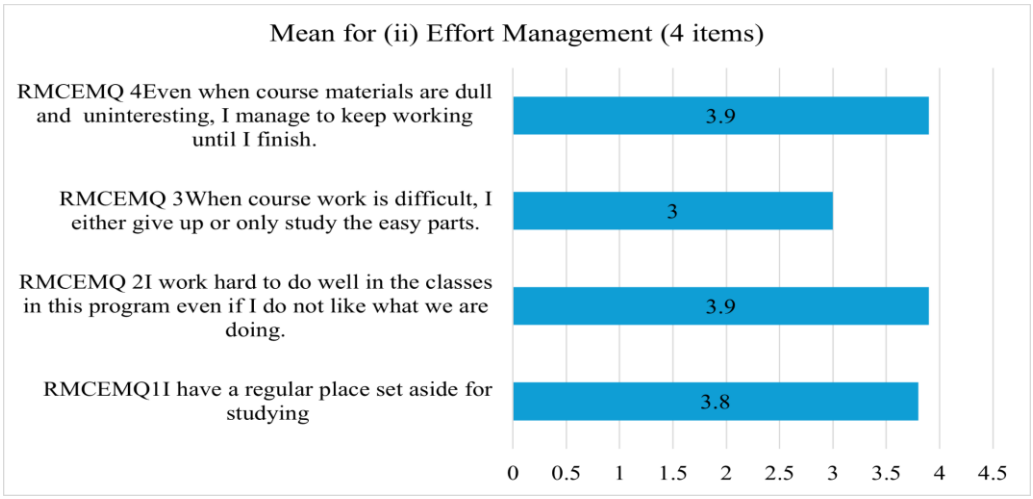


Figure 7 presents the findings related to effort management, a component of resource management. The data reveals mixed results regarding learners' effort management strategies. While learners reported having a regular study space RMCEMQ1 (M=3.8) and demonstrated a willingness to work hard even on uninteresting material RMCEMQ4 (M=3.9), they also indicated a tendency to struggle with challenging coursework. Specifically, the

mean score for giving up or focusing only on easy parts when faced with difficult material RMCEMQ3 (M=3.0) suggests a potential area of weakness in effort management. Despite this, the reported effort to succeed in classes, even when the material is disliked RMCEMQ2 (M=3.9), indicates a degree of commitment to academic goals.

These mixed results align with existing literature that emphasizes the significance of effort regulation as a critical component of academic success; studies have shown that effective effort management strategies are positively correlated with improved academic performance (Credé & Phillips, 2011; Richardson et al., 2012). Thus, while learners demonstrate some effective strategies in managing their efforts, there remains a need for targeted interventions to enhance their resilience and persistence in the face of academic challenges.

Figure 8- Mean for (iii) Help-Seeking (2 items)

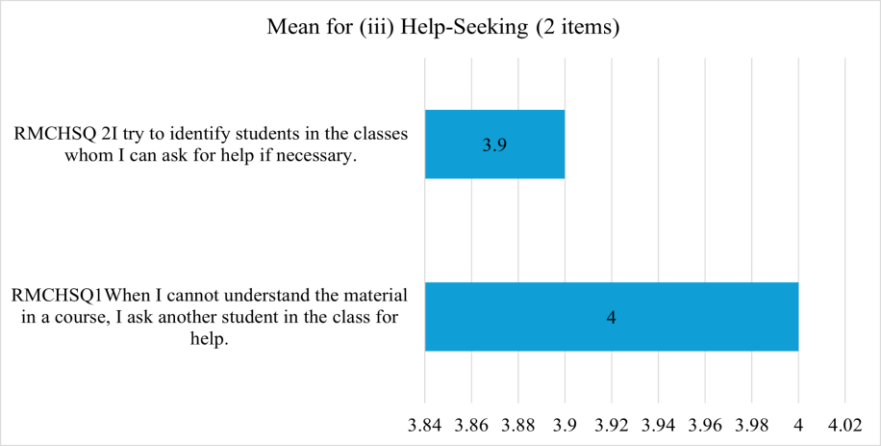


Figure 8 presents the findings related to help-seeking, a cognitive component of learning strategies. Learners reported a positive tendency to seek help from peers when encountering difficulties with course material (RMCHSQ1, *M* = 4.0). They also indicated proactive behaviour in identifying classmates as potential sources of support (RMCHSQ2, *M* = 3.9). These results suggest that learners are generally receptive to seeking assistance from their peers when needed, demonstrating an important self-regulated learning strategy. This aligns with existing literature that emphasizes the role of help-seeking behaviour in academic success, suggesting that students who actively seek support are more likely to overcome obstacles and enhance their understanding of course content (Karabenick & Newman, 2006; Wentzel, 2005). Therefore, fostering an environment that encourages peer support may be beneficial in promoting effective learning outcomes.

Findings for Behaviour

This section presents data to answer research question 2- How do learners perceive their behaviour in learning? In the context of this study, this is measured by cognitive components through by (i) rehearsal, (ii)organization, (iii) elaboration and (iv) critical thinking.

Figure 9- Mean for (i) Rehearsal (4 items)

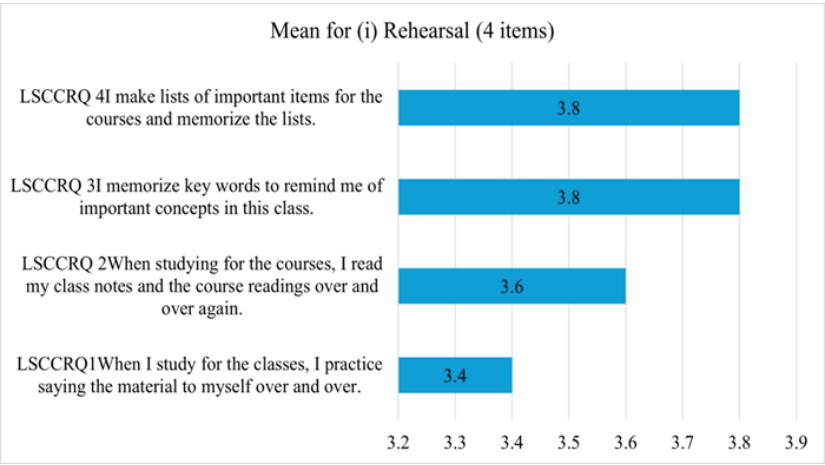


Figure 9 provides the mean scores for four items related to rehearsal strategies used in studying. Figure 9 shows that the most used techniques are LSCCRQ3 and LSCCRQ4 (M= 3.8), suggesting that learners rely more on memorization strategies like keywords and lists. Learners also tend to read class notes and readings repeatedly (LSCCRQ2, M=3.6). Item LSCCRQ1 (M=3.4) indicates that practicing material verbally is less common compared to other strategies.

Figure 10- Mean for (ii) Organization (4 items)

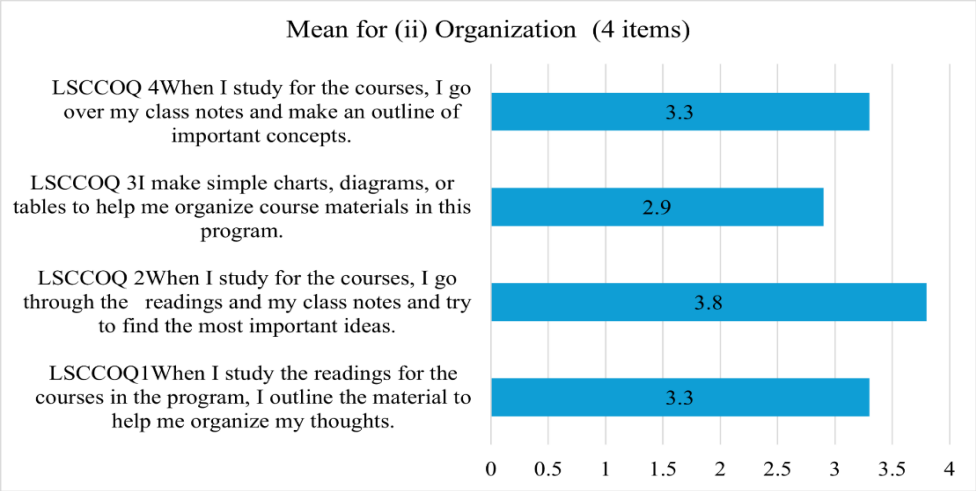


Figure 10 presents the mean scores for four items assessing organizational strategies used in studying. Organizational strategies involve structuring or categorizing information to facilitate understanding and retention. The highest mean is LSCCOQ2 (M=3.8), suggesting that students prioritize finding and focusing on key concepts during their studies. Both LSCCOQ1 and LSCCOQ4 (M= 3.3) suggest that while outlining is moderately used, it may not be a default method for most students. Item LSCCOQ3 has the lowest mean score (M= 2.9), which indicates creating visual aids is the least used strategy.

Figure 11- Mean for (iii) Elaboration (6 items)

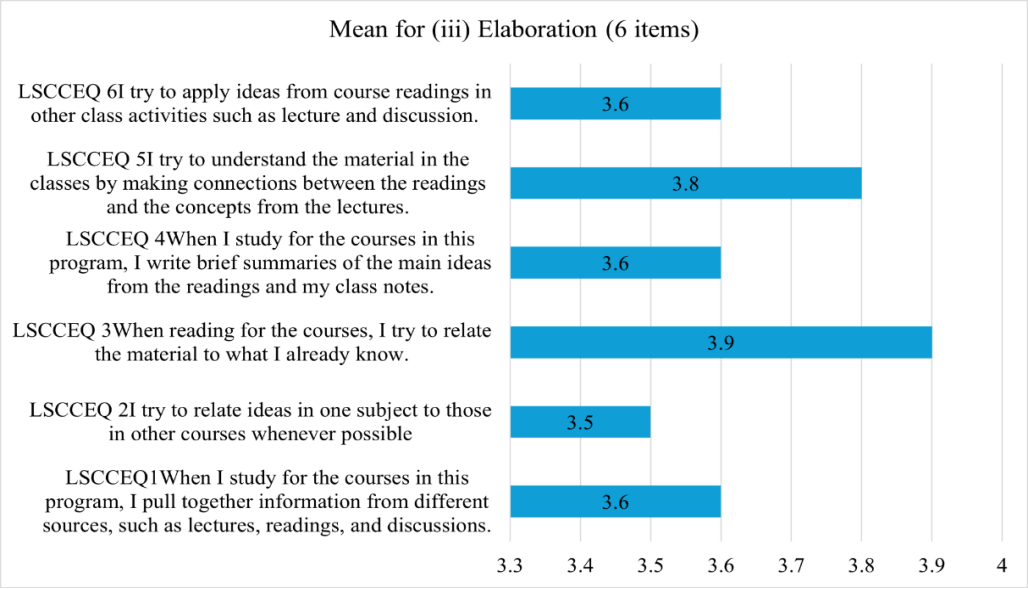


Figure 11 presents the mean scores for six items assessing elaboration strategies. Relating material to prior knowledge (LSCCEQ3) stands out as the most used elaboration strategy (M = 3.9). Followed by connecting readings with lecture concepts (LSCCEQ5, M=3.8) This suggests students excel at leveraging their existing knowledge to assimilate new concepts. Most items (LSCCEQ1, LSCCEQ4, LSCCEQ6) show similar mean scores of 3.6, indicating a balanced but moderate use of elaboration strategies like integration, summarization, and application. Relating ideas across subjects (LSCCEQ2) has the lowest mean (M=3.5), suggesting students

may not often connect concepts across courses. This might be an area to encourage more interdisciplinary thinking.

Figure 12- Mean for (iv) Critical Thinking (5 items)

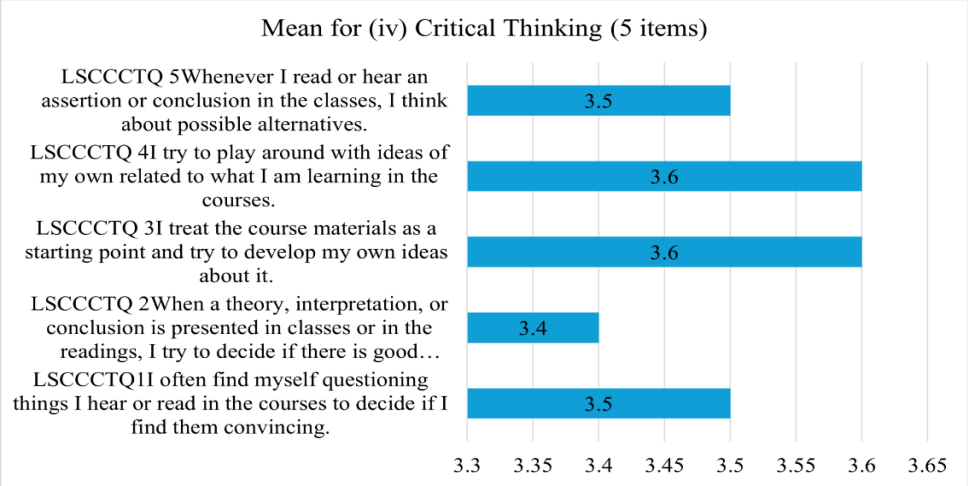


Figure 12 evaluates five items related to critical thinking, a cognitive strategy that involves questioning, analysing, and evaluating ideas to develop independent perspectives. Students excel at developing personal ideas (LSCCCTQ3) and exploring their own interpretations (LSCCCTQ4), with the highest mean scores of 3.6. This indicates a tendency toward independent thinking and creative engagement with material. LSCCCTQ2 has the lowest mean (M=3.4), suggesting evaluating evidence is a less common strategy for students.

Findings for Personal Factors

This section presents data to answer research question 3- How do learners perceive their personal components in learning? In the context of this study, this is measured by metacognitive self-regulation.

Figure 13- Mean for Metacognitive Self-Regulation

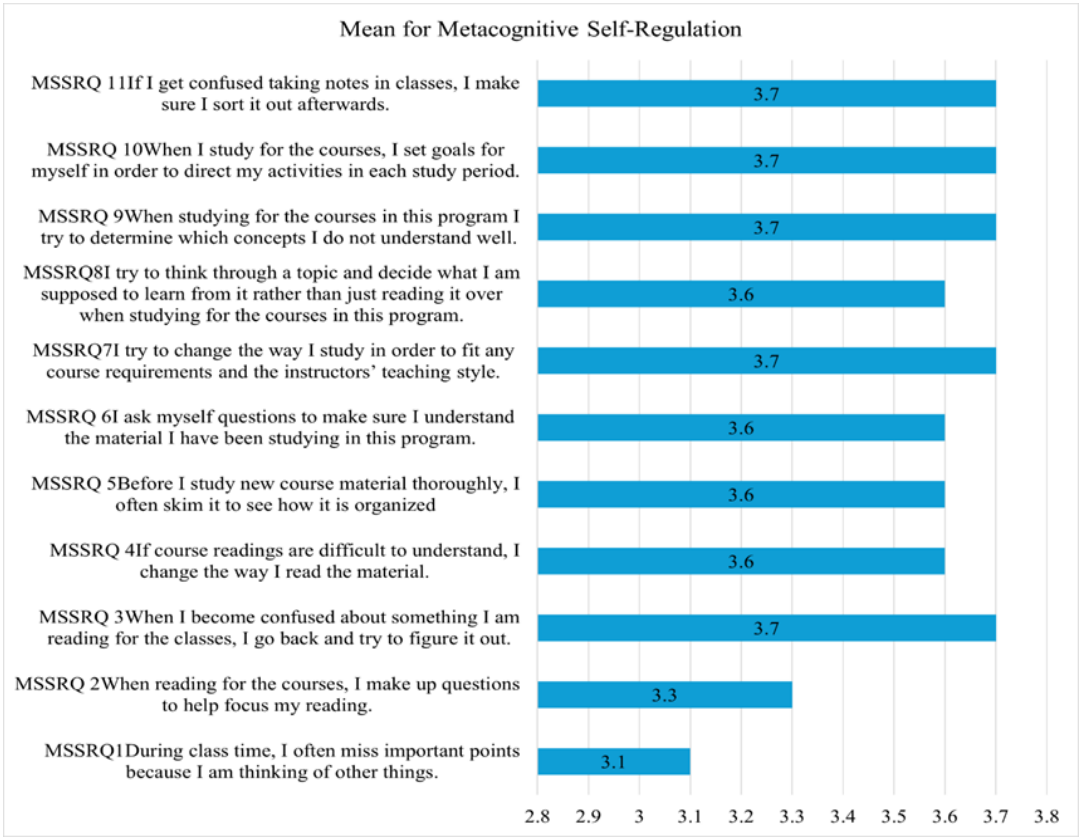


Figure 13 presents the mean scores for metacognitive self-regulation, assessing how frequently learners engage in various self-regulated learning strategies. Among the 11 items, MSSRQ3, MSSRQ7, MSSRQ9, MSSRQ10, and MSSRQ11 recorded the highest mean score (M = 3.7), indicating that learners frequently employ these strategies. These findings suggest that students actively engage in reviewing confusing content, adjusting study techniques to meet course requirements, identifying areas of difficulty, setting study goals, and clarifying notes.

The second highest mean score (M = 3.6) was recorded for MSSRQ4, MSSRQ5, MSSRQ6, and MSSRQ8, reflecting that learners also frequently adopt strategies such as modifying reading approaches, skimming materials for structure, self-questioning, and analysing learning objectives.

Conversely, MSSRQ1 (M = 3.1) and MSSRQ2 (M = 3.3) had the lowest and second-lowest mean scores, respectively. These results suggest that students only occasionally experience distractions in class (MSSRQ1) or generate questions to focus their reading (MSSRQ2). However, the minimal variation between the highest and lowest mean scores indicates that students generally engage in metacognitive self-regulation strategies with relative consistency.

Findings for Relationship between all components in learning

This section presents data to answer research question 4- Is there a relationship between all components in learning?

To determine if there is a significant association in the mean scores between environment, person and behaviour factors learning strategies, data is analysed using SPSS for correlations. Results are presented separately in table 14,15 and 16 below.

Table 14- Correlation between Environment and Person

Correlations

		ENVIRONMENT	PERSON
ENVIRONMENT	Pearson Correlation	1	.614**
	Sig. (2-tailed)		.000
	N	421	421
PERSON	Pearson Correlation	.614**	1
	Sig. (2-tailed)	.000	
	N	421	421

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

Table 14 demonstrates an association between environmental and personal factors. The results of the correlation analysis indicate a highly significant relationship between these factors, with r=.614** and p=.000. According to Jackson (2015), the coefficient is considered significant at the .05 level. Positive correlations are measured on a 0.1 to 1.0 scale, where a weak positive correlation falls within the range of 0.1 to 0.3, a moderate positive correlation within 0.3 to 0.5, and a strong positive correlation within 0.5 to 1.0. Consequently, the findings suggest a strong positive relationship between environmental and personal factors.

Table 15- Correlation between Person and Behaviour

Correlations

		PERSON	BEHAVIOUR
PERSON	Pearson Correlation	1	.801**
	Sig. (2-tailed)		.000
	N	421	421
BEHAVIOUR	Pearson Correlation	.801**	1
	Sig. (2-tailed)	.000	
	N	421	421

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

Table 15 demonstrates an association between personal factors and behaviour. The results of the correlation analysis indicate a highly significant relationship between these factors, with r=.801** and p=.000. According to Jackson (2015), the coefficient is considered significant at the .05 level. Positive correlations are measured on a 0.1 to 1.0 scale, where a weak positive correlation falls within the range of 0.1 to 0.3, a moderate positive correlation within 0.3 to 0.5, and a strong positive correlation within 0.5 to 1.0. Consequently, the findings suggest a strong positive relationship between personal factors and behaviour.

Table 16- Correlation between Behaviour and Environment

Correlations

		BEHAVIOUR	ENVIRONMENT
BEHAVIOUR	Pearson Correlation	1	.557**
	Sig. (2-tailed)		.000
	N	421	421
ENVIRONMENT	Pearson Correlation	.557**	1
	Sig. (2-tailed)	.000	
	N	421	421

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

Table 16 demonstrates an association between behaviour and environmental factors. The results of the correlation analysis indicate a highly significant relationship between these factors, with r=.557** and p=.000. According to Jackson (2015), the coefficient is considered significant at the .05 level. Positive correlations are measured on a 0.1 to 1.0 scale, where a weak positive correlation falls within the range of 0.1 to 0.3, a moderate positive correlation within 0.3 to 0.5, and a strong positive correlation within 0.5 to 1.0. Consequently, the findings suggest a strong positive relationship between behaviour and environmental factors.

CONCLUSION

Summary of Findings and Discussion

This study explored how learners perceive their environment, behaviour, and personal components in learning and examined the relationships among these factors.

In terms of learning environment, learners demonstrated a strong inclination toward managing their learning space and time effectively. They reported prioritizing class attendance, studying in a conducive environment, and seeking peer support when faced with difficulties. These findings align with Kameli, et. al. (2012) and Zhang (2023), who emphasized that a well-structured language learning environment significantly impacts language acquisition. Unlike the study by Habók and Magyar (2018), which found metacognitive strategies to be the most utilized, this study indicates that environmental strategies play a more dominant role in learners' experiences.

Regarding learning behaviour, learners exhibited a mix of cognitive learning strategies, including rehearsal, organization, elaboration, and critical thinking. Among cognitive learning strategies, learners frequently used rehearsal, elaboration and critical thinking strategies on their foreign language learning such as memorization techniques, relating new material to prior knowledge, and developing and exploring personal ideas. Organizational strategies such as using visual aids and outlining, were less commonly used. These findings are consistent with studies by Credé and Phillips (2011) and Richardson et al. (2012), which highlight the importance of cognitive regulation for academic success.

For personal components, learners displayed metacognitive self-regulation strategies such as setting study goals, identifying areas of difficulty, and adjusting study techniques based on course requirements. However, they showed a lower tendency to self-question or generate focus-driven reading inquiries. These results support findings from Karabenick and Newman (2006) and Wentzel (2005), who emphasized the significance of metacognitive self-regulation in academic achievement.

The study also found strong positive correlations between all three components of learning. Environment and personal factors exhibited a strong relationship, indicating that learners who effectively manage their learning spaces are more likely to employ self-regulatory strategies. Similarly, personal and behavioural factors were significantly correlated, suggesting that metacognitive regulation influences the adoption of cognitive learning strategies. Finally, a strong relationship between behaviour and environment underscores how structured learning spaces contribute to the application of effective study techniques. This demonstrates that environmental, behavioural, and personal learning strategies are interdependent, confirming that language learners who utilize any one of these components can enhance their language acquisition effectively.

Based on these results, this study successfully addressed all four research questions and filled a gap in the existing literature by revealing that language learners in Thailand and Vietnam are more inclined to use environmental learning strategies than personal and resource management strategies in their language learning.

Pedagogical Implications and Suggestions for Future Research

The findings of this study suggest several pedagogical implications. First, since environmental strategies were the most frequently used, educators should emphasize the importance of structured learning environments by promoting time management skills, designated study spaces, and active class participation. Encouraging students to seek peer support when facing difficulties could further enhance their learning experience.

Second, instructors should foster cognitive engagement by encouraging the use of visual aids, such as flashcards, memory retention activities in classroom games, systematically structured lecture outlines, and critical thinking exercises to enhance knowledge retention.

Third, metacognitive self-regulation should be further developed through training in self-questioning techniques and adaptive learning strategies. Educators can also provide positive reinforcement or establish group study teams to help students cultivate a positive self-regulated learning mindset.

Future research could explore the impact of specific interventions, such as structured peer support programs or technology-based learning tools, on the relationships among environment, behaviour, and personal learning strategies. Additionally, longitudinal studies could examine how these strategies evolve over time and their long-term effects on academic success.

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Conflict of Interest

The authors confirm that there is no conflict of interest involved with any parties in this research study.

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