Chinese Students' Perceptions of Extramural English Learning Activities for Vocabulary Acquisition: A Case Study at a Private University in Bangkok

Yue Wang and Sumalee Chinokul*

***Corresponding author's email: sumalee.c@rsu.ac.th**

Suryadhep Teachers College, Rangsit University, Thailand

Received: May 7, 2025 *Revised: June 14, 2025* *Accepted: June 23, 2025*

Abstract

This study investigates Chinese undergraduate students' perceptions of Extramural English Learning Activities (EELA) for vocabulary acquisition at a private university in Bangkok. Using a sequential mixed-methods design, data were collected from 128 questionnaires and 13 interviews with undergraduate students. Results show that students preferred contextual and meaningful vocabulary learning methods over rote memorization. They commonly used strategies such as inferencing, dictionary use, note-taking, and encoding, especially during receptive EELA—such as watching videos and reading—while productive activities like writing, conversations, and gaming were perceived as more effective for vocabulary retention, particularly by students who believed in learning through real-life use. The study further explores how students' beliefs about vocabulary learning interact with their EELA choices and strategy use. Metacognitive strategies, including self-initiation and selective attention, also played an important role, while rehearsal and activation strategies were used less often but still contributed to learning. Overall, students preferred contextual and meaningful learning over rote memorization, showing a strong tendency toward self-directed vocabulary development. In this study, the term "Extramural" refers to language learning activities occurring outside formal classroom settings, often informally and self-initiated. These findings highlight the value of integrating EELA and strategy-based instruction into formal curricula to enhance learner autonomy and vocabulary acquisition.

Keywords: extramural English learning activities (EELA), productive activities, receptive activities, vocabulary learning strategies

Introduction

In today's globalized academic environment, English proficiency is crucial for academic success and international communication. For Chinese students enrolled in English-medium programs abroad, vocabulary knowledge plays a central role in both academic performance and effective social integration. However, traditional classroom instruction often fails to meet students' vocabulary learning needs due to limited time, test-oriented curricula, and a focus on grammar rather than meaningful language use. As a result, many learners seek alternative ways to improve their vocabulary outside formal education.

One such alternative is Extramural English Learning Activities (EELA)—language-related activities undertaken beyond the classroom, including watching English media, using language-learning apps, gaming, and participating in online communities. These activities provide authentic, contextualized exposure to language, support learner autonomy, and help bridge the gap between academic English and everyday communication. EELA also aligns with key theoretical principles such as self-directed learning, incidental vocabulary acquisition, and self-regulation (Lai et al., 2022; Sundqvist, 2024). With the growing availability of digital tools and informal learning environments, EELA has become an essential component of second language acquisition, particularly in cross-cultural and international settings.

Despite the increasing importance of EELA, little is known about how Chinese students in English-medium universities perceive and utilize these activities for vocabulary development. This gap is particularly significant in the context of Chinese undergraduates studying in English-medium instruction (EMI) programs in Thailand, where they must transition from a test-focused educational background to an environment requiring functional communicative competence. Existing research has largely focused on formal instruction, with limited attention to how students strategically engage in EELA and what impact these practices have on vocabulary acquisition. Although the relationship between extramural English and vocabulary development has been explored (Calafato & Clausen, 2024; Lai et al., 2022; Lee, 2019; Sundqvist, 2024), little research has addressed the dynamic interplay between EELA types, learning strategies, and learner beliefs in this specific learner group. Moreover, the relationship between different types of EELA—receptive (e.g., watching, reading) and productive (e.g., writing, speaking)—and vocabulary learning strategies remains underexplored.

This study seeks to address these gaps by investigating Chinese students' beliefs about effective vocabulary learning, the vocabulary learning strategies they employ, and the types of vocabulary learning activities they engage in through Extramural English Learning Activities (EELA). In particular, the study explores how these elements—beliefs, activity types, and strategy use—interact to shape students' vocabulary development. By analyzing students' experiences with EELA, this research aims to offer

insights into the role of informal learning in vocabulary development and provide guidance for educators on integrating formal and informal approaches to support language learners.

Literature Review

Extramural English Learning Activities (EELA) and Vocabulary Development

Extramural English Learning Activities (EELA) refer to informal, self-directed language learning experiences that occur outside formal classroom instruction. Sundqvist (2009) defines EELA as activities that provide learners with authentic exposure to English through media consumption, social interaction, and digital engagement. These activities can be broadly categorized into receptive practices, such as watching videos, listening to music, and reading, and productive practices, including gaming, writing, and technology-enhanced socialization (Zhang et al., 2021). Technological advancements have further expanded the scope of EELA, allowing learners to interact with English in real-time digital environments (Bardak, 2023). Research shows that while receptive activities are more frequently practiced due to their accessibility (Bai, 2018; Lee, 2019), productive activities are often more effective for vocabulary retention, as they involve active use and contextual application of new words (Alemi & Tayebi, 2011; Asyiah, 2017). This paradox suggests a tension between convenience and cognitive depth: learners may opt for receptive activities because they are less demanding and easier to access, yet they derive more substantial vocabulary gains from productive engagement, which requires effortful use and active retrieval (Calafato & Clausen, 2024; Lai et al., 2022). This complexity is central to understanding learner preferences and behavior.

Vocabulary Learning Strategies in EFL Contexts

Vocabulary Learning Strategies (VLS) are deliberate techniques used by learners to acquire, retain, and utilize vocabulary effectively (Gu & Johnson, 1996). In English as a Foreign Language (EFL) context, where exposure to English is limited, strategic learning becomes essential. Gu (2003) identifies key strategy types, including metacognitive strategies (planning, monitoring), inferencing from context, dictionary use, note-taking, rehearsal, encoding, and activation. Each strategy contributes uniquely to different stages of vocabulary learning. For example, inferencing and dictionary use support comprehension, while rehearsal and encoding aid retention, and activation strategies promote practical use of vocabulary in speaking and writing (Asgari & Mustapha, 2011; Eyckmans, 2017). Successful learners often employ a combination of these strategies, adapted to their specific learning tasks and environments (Mizumoto & Takeuchi, 2009; Schmitt, 1997).

Strategic Engagement with EELA

The integration of vocabulary learning strategies into EELA has gained increasing attention in recent studies. Brevik (2019) and Eyckmans (2017) highlight that learners frequently apply inferencing, dictionary consultation, and note-taking while engaging in receptive EELA such as video watching or reading. Productive EELA, including online gaming or discussions, tends to involve strategies like activation, encoding, and metacognitive monitoring (Fajt, 2021; Lai, 2019). Zhang et al. (2021) proposed a framework mapping EELA types to typical strategy patterns, suggesting that receptive activities mainly promote comprehension-focused strategies, whereas productive activities stimulate the application and reinforcement of vocabulary. However, there remains a gap in understanding how learners adjust their strategy use across different EELA contexts, especially among Chinese students in international academic environments, where learning expectations and exposures differ significantly from their prior educational experiences (Gu, 2003). It is also important to note that certain strategies—such as note-taking, dictionary consultation, or rehearsal—can support both memorization and contextual learning depending on learner intent and task design. This study, however, categorizes strategies based on their primary reported use in learners' responses, allowing clearer mapping to activity types.

Learner Beliefs and Preferences Regarding EELA

Learners' beliefs about vocabulary acquisition significantly influence their engagement with EELA and strategy use. Griffiths (2007) and Horwitz (2016) argue that beliefs about language learning, such as the preference for memorization or contextual learning, shape the choice of strategies and activities. In many Asian EFL contexts, students are accustomed to rote memorization, often favoring rehearsal strategies even in informal settings (Fan, 2003; Schmitt, 1997). However, exposure to authentic English environments, such as through media or real-life interactions, can shift preferences toward contextual and usage-based learning approaches (Coskun & Mutlu, 2017; Eyckmans, 2017). This shift often leads to increased engagement in productive EELA, as learners seek more interactive and meaningful language experiences. Understanding these belief-driven behaviors is essential for designing effective language instruction that integrates both formal and informal learning approaches.

Summary and Research Gap

Existing literature highlights the significant role of EELA in supporting vocabulary development, particularly when learners engage strategically with different types of activities. While receptive EELA is more commonly practiced, productive EELA provides deeper cognitive benefits through active language use. Moreover, learner beliefs play a critical role in shaping how students interact with EELA and apply vocabulary learning strategies. Despite these insights, limited research has explored these dynamics among

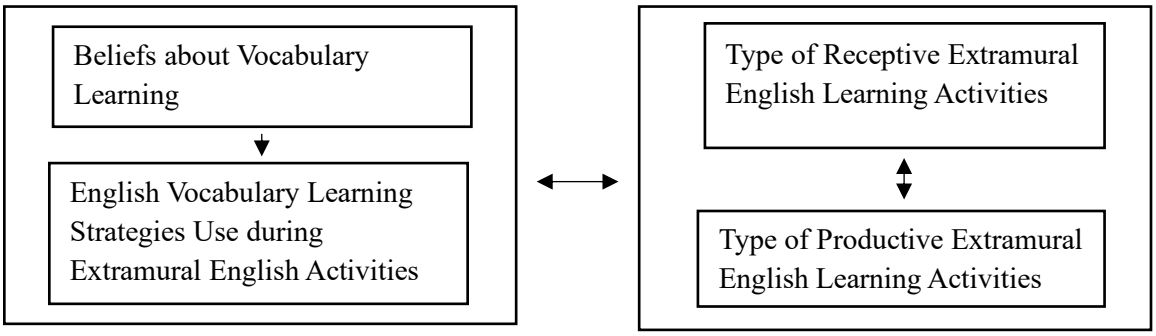
Chinese EFL learners in international contexts, where educational environments emphasize self-directed and informal learning. Specifically, little is known about how learners perceive various EELA types and how these perceptions affect their strategic engagement. Furthermore, the ways in which learner beliefs, EELA participation, and vocabulary strategies dynamically interact remain underexplored. This study seeks to address these gaps by investigating Chinese students' beliefs, preferences, and strategy use across different EELA types, offering both theoretical and practical implications for vocabulary learning in hybrid learning contexts. Recent studies have further emphasized the need to examine EELA in diverse learner populations and evolving digital environments (Brevik, 2019; Lai et al., 2022; Sundqvist, 2024), underscoring the continued relevance of extramural engagement for vocabulary acquisition.

Conceptual Framework

This study is guided by a conceptual framework that highlights the interactions among students' beliefs about vocabulary learning, their engagement in different types of Extramural English Learning Activities (EELA), and their vocabulary learning strategies. The framework draws on the categorization of EELA into productive and receptive activities (Sundqvist, 2009; Zhang et al., 2021), established strategy typologies (Gu, 2003), and the influence of learner beliefs on language learning behavior (Griffiths, 2007; Horwitz, 2016). It illustrates how beliefs shape both the choice of EELA and the strategies students employ, while different EELA types also activate distinct strategy patterns. Although Figure 1 uses directional arrows to reflect dominant flow for conceptual clarity, these relationships are understood to be dynamically interconnected and reciprocal. For instance, beliefs may guide initial activity choices, but repeated success in a specific EELA type may, in turn, reinforce or shift those beliefs and encourage new strategy adoption. By applying this framework, the study aims to examine how students' beliefs, types of EELA, and vocabulary strategy use mutually influence one another in supporting vocabulary development among Chinese EFL learners in an English-medium academic setting.

Figure1

Conceptual Framework: Interactions Between Learner Beliefs, Types of EELA, and Vocabulary Strategy Use



Methods

Research Design and Context

This study employed a sequential mixed-methods design, combining quantitative and qualitative data to explore Chinese students' perceptions of Extramural English Learning Activities (EELA) and their vocabulary learning strategies in an English-medium university in Bangkok. The quantitative phase utilized a structured questionnaire, while the qualitative phase involved semi-structured interviews. Both data sets were collected concurrently and analyzed separately before integration, allowing for cross-validation and a comprehensive understanding of students' engagement with EELA (Creswell & Plano Clark, 2017). This design also supported the exploration of how students' beliefs, EELA participation, and vocabulary strategy use intersect and inform one another. The selected university represents a typical EMI context in Thailand, where Chinese students must navigate English instruction despite limited language exposure outside the classroom. This context is particularly relevant for investigating EELA, as learners may rely more on informal and digital environments to build vocabulary and cope with academic demands.

Participants

The participants were 128 Chinese undergraduate students enrolled in English programs at a private university in Bangkok. Most had resided in Thailand for at least half an academic year. The estimated population of 300 students was based on official enrollment records of first-year Chinese students at the International College of a private university in Bangkok. Participants were randomly selected from several English-medium classes using the university's student registry. Each student was assigned a numerical ID, and selection was conducted via a computerized random number generator. Participation was voluntary and anonymous, with no personal identifiers collected. The sample size of 128 was determined using G*Power, ensuring adequate statistical power for medium-effect research (Faul et al., 2007).

For the qualitative component, 13 students who had indicated willingness to be interviewed were randomly selected from among the 128 survey respondents. This approach aimed to ensure both diversity of experience and voluntary participation. This number, representing approximately 10% of the sample, was considered sufficient for thematic saturation (Guest et al., 2006).

Research Instruments

Two instruments were employed in this study: a questionnaire and a semi-structured interview guide. The questionnaire was adapted from Gu's (2018) revision of Gu and Johnson's (1996) vocabulary learning strategy scale. It assessed students' use of vocabulary learning strategies, including metacognitive

regulation, inferencing, dictionary use, note-taking, rehearsal, encoding, and activation. Responses were rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

The adapted questionnaire demonstrated acceptable internal consistency, with Cronbach's alpha coefficients ranging from 0.78 to 0.86 across key subscales (e.g., beliefs, metacognitive strategies, inferencing). Adaptations were made to better reflect the EELA-specific context of this study and to simplify complex wording for improved clarity and comprehension.

A follow-up checklist-style questionnaire was also developed based on initial interview findings. It aimed to assess participants' engagement in specific receptive and productive EELA activities. This supplemental instrument yielded frequency data that supported thematic patterns identified through qualitative analysis.

The semi-structured interview guide was designed to explore students' experiences with EELA, their vocabulary learning strategies, and their beliefs about vocabulary learning. The questions were aligned with the questionnaire domains and refined through self-evaluation and expert feedback from two lecturers in bilingual education. All interviews were conducted in Mandarin to ensure participant comfort and were later translated into English for analysis.

Validation and Reliability

To ensure content validity, three experts in English language teaching evaluated each interview question using the Item-Objective Congruence (IOC) method. Questions with IOC values between 0.67 and 1.00 were retained, while others were revised based on expert suggestions. Revisions included simplifying wording, splitting complex items, and removing redundancy to better reflect students' vocabulary learning strategies. For reliability, two trained raters independently coded 13 transcripts using a framework based on Gu and Johnson's (1996) vocabulary learning strategy taxonomy. Thematic categories included extramural vocabulary learning activities, preferred methods, understanding strategies, long-term retention, and daily application. Inter-coder agreement was assessed using the Inter-Coding Correlation Coefficient (ICC) in SPSS 27. The ICC ranged from 0.75 to 0.91 across categories, with an overall value of 0.82, indicating good coding consistency.

Ethical Considerations

The study was approved by the Ethics Review Board of Rangsit University (Ref: RSU-ERB2024/304.1612). The study was also approved by the university department responsible for student research. All participants took part voluntarily after being informed about the purpose of the study. They were assured that their responses would remain confidential and that they could choose not to participate at any time.

Data Collection

Data were collected in two sequential phases. First, a questionnaire adapted from Gu's vocabulary learning strategy scale was distributed to 128 students to gather quantitative data on their beliefs and strategy use. Based on these results, 13 participants were randomly selected for one-on-one semi-structured interviews to explore their experiences with Extramural English Learning Activities (EELA) in greater depth. Informed by the emerging interview themes, a follow-up questionnaire was later developed to quantify students' engagement in specific receptive and productive EELA activities, providing further support for the qualitative findings.

Data Analysis

Quantitative data were analyzed using SPSS, focusing on descriptive statistics such as means, frequencies, and standard deviations to identify patterns in students' beliefs about vocabulary learning methods and their reported vocabulary learning strategies. The Likert scale scores were categorized as follows: 4.50–5.00 = Highest; 3.51–4.49 = High; 2.51–3.50 = Medium; 1.51–2.50 = Low; 1.00–1.50 = Very Low. Interview data were analyzed thematically, combining categories based on Gu and Johnson's (1996) strategy framework with new themes that emerged from student responses, particularly regarding students' engagement with different types of EELA activities. Themes were refined through collaborative discussions between coders, and member-checking with selected participants helped verify the accuracy of interpretations. Attention was also given to identifying patterns in how learner beliefs influenced both the choice of EELA and the vocabulary strategies applied. To avoid overinterpretation, the study triangulated data across sources and highlighted only well-supported trends.

Results

Background Information on Students' Extramural English Learning Activities

This study involved 128 Chinese undergraduate students enrolled at a private university in Bangkok. Although most participants reported limited English proficiency, they frequently engaged in Extramural English Learning Activities (EELA) to support vocabulary development. These activities were a regular part of their daily routines and included both receptive activities—such as watching videos, reading, and listening to audio—and productive activities like gaming, online communication, and writing.

The findings presented in the following sections address three key aspects of students' engagement with vocabulary learning in EELA contexts:

1) What are students' beliefs about effective vocabulary learning methods?
2) What vocabulary learning strategies do students use during their extramural activities?

3) What types of vocabulary learning activities do students engage in during their extramural activities?

Research Question 1: Students' Beliefs About Vocabulary Learning Methods

Questionnaire Results: Memorization vs. Contextual Use

Questionnaire data revealed that students held mixed beliefs about vocabulary learning, with a stronger inclination toward contextual learning. As shown in Table 1, the mean score for "Words should be learned through use" was 4.04 (SD = 0.993, Highest level), while "Words should be memorized" had a mean score of 3.23 (SD = 1.401, Medium level). These interpretation levels were based on equal intervals—4.50–5.00 = Highest, 3.51–4.49 = High, 2.51–3.50 = Medium, 1.51–2.50 = Low, and 1.00–1.50 = Very Low—and were applied consistently throughout the analysis. This suggests that although memorization is valued, students generally prefer learning vocabulary through practical, real-life use.

Table 2

Students' Beliefs about Vocabulary Learning Methods

Belief Category: Words should be memorized	**Mean**	**SD**	**Interpretation**
1. Once the English words of all my native language meanings have been remembered, English is learned.	2.95	1.385	Medium
2. The best way to remember words is to memorize word lists or dictionaries.	3.13	1.465	High
3. The purpose of learning a word is to remember it.	2.95	1.443	Medium
4. A good memory is all you need to learn a foreign language well.	3.16	1.450	High
5. Repetition is the best way to remember words.	2.92	1.499	Medium
6. You can only learn a large vocabulary by memorizing a lot of words.	4.24	1.162	Highest
Total	**3.23**	**1.401**	**Medium**
Belief Category: Words should be learned through use	**Mean**	**SD**	**Interpretation**
1. The meanings of a large amount of words can be picked up through reading.	3.08	1.372	High
2. Learners should pay attention to expressions (e.g., pick up) and collocations (e.g., heavy rain; strong wind) that go with a word.	4.51	0.914	Highest
3. Learners can learn vocabulary simply through reading a lot.	4.41	0.809	Highest
4. The least a learner should know about a word is its spelling, pronunciation,	4.14	0.876	Highest
Total	**4.04**	**0.993**	**Highest**

Words Should Be Memorized

Some students emphasized the usefulness of memorization, particularly for academic or technical vocabulary:

> *Memorizing words directly is effective for exams, like academic terms such as "coherent" and "articulate." However, real-life use solidifies understanding. A combination of both methods works best.*
>
> *(Student 2)*

> *Memorization works best for scientific terms like "photosynthesis" and "metabolism". However, real-life use is better for everyday vocabulary because it shows how words are naturally used in sentences.*
>
> *(Student 6)*

These views indicate that memorization is considered necessary for mastering precise terminology, especially for academic and scientific purposes. However, even students who favor memorization acknowledge its limitations in supporting the natural and practical use of vocabulary.

Words Should Be Learned Through Use

Many students believed that learning vocabulary through real-life use is more effective for retention and understanding:

> *The most effective way to learn new vocabulary is by integrating it into real-life situations. For example, I learned "negotiate" during a group project. Real-life use makes words meaningful and memorable. Memorizing feels mechanical and lacks context.*
>
> *(Student 1)*

> *Real-life use is most effective. For example, I learned "time management" during a workshop. Applying it in daily life helped me retain it better than rote memorization.*
>
> *(Student 5)*

These responses reflect a strong preference for contextual learning. Students believe that using vocabulary in meaningful, real-life settings helps deepen their understanding and promotes long-term retention, making learning more dynamic and personally relevant.

Combination of Memorization and Use

Several participants suggested that combining both memorization and practical use yields the best results:

> *I prefer a mix of both methods. Memorization builds a foundation, like technical terms such as 'algorithm.' Real-life use during coding workshops gives me confidence and reinforces their application.*
>
> *(Student 10)*

Students who advocated for a combined approach recognized that memorization helps establish essential knowledge, especially for technical vocabulary, while practical use enhances confidence and supports the effective application of words in real contexts. This balanced belief underscores the complementary roles of both methods in achieving comprehensive vocabulary learning.

Research Question 2: Vocabulary Learning Strategies Used During Extramural Activities

To further explore the connection between students' beliefs and strategy use, strategies were grouped according to whether they aligned with memorization-based or usage-based beliefs. Students reported employing a wide range of vocabulary learning strategies while engaging in Extramural English Learning Activities (EELA). These strategies included inferencing, dictionary consultation, encoding, note-taking, metacognitive regulation, rehearsal, and activation. The frequency and choice of strategies varied depending on the activity type and individual learner preferences.

The following table summarizes the frequency of each strategy based on questionnaire responses. To better reflect students' underlying beliefs about vocabulary learning, strategies were categorized into two groups: those associated with the belief that words should be memorized (Table 3), and those associated with the belief that words should be learned through use (Table 4). This categorization was adapted from Gu and Johnson's (1996) original framework.

Table 3

Vocabulary Learning Strategy Use during Extramural Activities Associated with Words should be memorized

Strategy Category	Question Item	Mean	SD	Interpretation of Strategy Level Use
Dictionary strategies	1. When I see an unfamiliar word again and again, I look it up.	4.30	0.767	Highest

Strategy Category		Question Item	Mean	SD	Interpretation of Strategy Level Use
		2. When not knowing a word prevents me from understanding a whole sentence or even a whole paragraph, I look it up.	4.38	0.744	Highest
		3. I look up words that are important to the understanding of the sentence or paragraph in which it appears.	4.31	0.761	Highest
		4. I pay attention to the examples when I look up a word in a dictionary.	3.03	1.345	High
		5. When I want to have some deeper knowledge about a word that I already know, I look it up.	4.40	0.777	Highest
		6. When I want to know more about the usage of a word that I know, I look it up.	4.47	0.878	Highest
		7. I check the dictionary when I want to find out the similarities and differences between the meanings of related words.	4.87	0.508	Highest
Total			**4.25**	**0.826**	**Highest**
Taking notes	Choosing which word to put into notebook	1. I make a note when I think the meaning of the word I'm looking up is commonly used.	4.95	0.277	Highest
		2. I make a note when I think the word I'm looking up is related to my personal interest.	4.93	0.336	Highest
		3. I make a note when I see a useful expression or phrase.	4.04	0.231	Highest
	Deciding what information goes into notes	1. I write down the English explanations of the word I look up.	4.92	0.368	Highest
		2. I write down both the meaning in my native language and the English explanation of the word I look up.	4.86	0.482	Highest

Strategy Category		Question Item	Mean	SD	Interpretation of Strategy Level Use
		3. I note down examples showing the usages of the word I look up.	3.07	1.347	High
Total			**4.46**	**0.700**	**Highest**
Rehearsal	Use of word lists	1. I go through my vocabulary list several times until I remember all the words on the list.	3.09	1.492	High
		2. I make vocabulary cards and take them with me wherever I go.	2.93	1.415	Moderate
		3. I make regular reviews of new words I have memorized.	3.03	1.474	High
	Oral repetition	1. When I try to remember a word, I say it aloud to myself.	2.94	1.303	Moderate
		2. When I try to remember a word, I repeat its pronunciation in my mind.	4.60	0.767	Highest
		3. Repeating the sound of a new word to myself would be enough for me to remember the word.	3.09	1.377	High
	Visual repetition	1. When I try to remember a word, I write it again and again.	3.09	1.414	High
		2. I memorize the spelling of a word letter by letter.	4.91	0.386	Highest
		3. I write both the new words and their translation in my native language again	2.93	1.370	Moderate
Total			**3.40**	**0.730**	**High**
Encoding	Visual encoding	1. I act out some words in order to remember them better (e.g., jump).	3.02	1.479	High
		2. I create a picture in my mind to help me remember a new word.	3.11	1.399	High
		3. To help me remember a word, I try to “see” the spelling of the word in my mind.	2.90	1.351	Moderate
	Auditory encoding	1. I put words that sound similar together in order to remember them.	2.93	1.370	Moderate

Strategy Category		Question Item	Mean	SD	Interpretation of Strategy Level Use
		2. When words are spelled similarly, I remember them together.	3.26	1.370	High
		3. When I try to remember a new word, I link it to a sound-alike word that I know.	2.77	1.387	Moderate
	Use of word-structure	1. When I learn new words, I pay attention to prefixes, roots, and suffixes (e.g., inter-nation-al).	4.53	0.516	Highest
		2. I intentionally study how English words are formed in order to remember more words.	2.98	1.411	Moderate
		3. I memorize the commonly used roots and prefixes.	4.50	0.687	Highest
	Contextual encoding	1. When I try to remember a word, I also try to remember the sentence in which the word is used.	2.88	1.425	Moderate
		2. I put words in set expressions or sentences in order to remember them.	3.20	1.508	High
		3. I remember a new word together with the context where the new word appears.	3.06	1.484	High
Total			**3.26**	**0.576**	**High**
Grand Total of Vocabulary Learning Strategy Use during Extramural Activities Associated with Words should be memorized			**3.84**	**0.520**	**High**

Table 4

Vocabulary Learning Strategy Use during Extramural Activities Associated with Words Should Be Learned Through Use

Strategy Category		**Question Item**	**Mean**	**SD**	**Interpretation of Strategy Level Use**
Metacognitive	Selective attention	1. I know whether a new word is important in understanding a passage.	3.00	1.436	High
		2. I know which words are important for me to learn.	3.06	1.473	High
		3. When I meet a new word or phrase, I know clearly whether I need to remember it.	2.98	1.420	Moderate
	Self-initiation	1. Besides textbooks, I look for other readings that fall under my interest.	4.20	0.725	Highest
		2. I wouldn't learn what my English teacher doesn't tell me to learn. (Reversed value)	3.89	1.271	High
		3. I only focus on things that are directly related to examinations. (Reversed value)	3.97	1.458	High
		4. I wouldn't care much about vocabulary items that my teacher does not explain in class. (Reversed value)	3.88	1.418	High
Total			**3.57**	**0.491**	**High**
Inferencing	Guessing strategies	1. I make use of the logical development in the context (e.g., cause and effect) when guessing the meaning of a word.	4.41	0.621	Highest
		2. I use common sense and knowledge of the world when guessing the meaning of a word.	3.88	0.742	High

		3. I check my guessed meaning in the paragraph or whole text to see if it fits in.	4.26	0.655	Highest
		4. When I don't know a new word in reading, I use my background knowledge of the topic to guess the meaning of the new word.	4.31	0.781	Highest
		5. I look for explanations in the reading text that support my guess about the meaning of a word.	4.46	0.762	Highest
		6. I make use of the grammatical structure of a sentence when guessing the meaning of a new word.	4.05	0.772	Highest
		7. I make use of the part of speech of a new word when guessing its meaning.	4.02	0.827	Highest
Total			**4.20**	**0.202**	**Highest**
Activation		1. I make up my own sentences using the words I just learned.	3.27	1.366	High
		2. I try to use the newly learned words as much as possible in speech and writing.	3.06	1.390	High
		3. I try to use newly learned words in real situations.	3.20	1.365	High
		4. I try to use newly learned words in imaginary situations in my mind.	2.91	1.325	Moderate
Total			**3.11**	**1.362**	**High**
Grand Total of Vocabulary Learning Strategy Use during Extramural Activities Associated with Words should be memorized			**3.63**	**0.447**	**High**

These data indicate that students relied heavily on inferencing, dictionary use, and note-taking, particularly in receptive EELA, such as video watching and reading. Activation strategies, though used less frequently, were associated with productive activities and valued for reinforcing vocabulary use.

A comparison of Table 3 and Table 4 reveals meaningful differences in how students employed vocabulary learning strategies based on their underlying learning beliefs. Table 3 indicates that strategies

associated with memorization—such as dictionary use (M = 4.25) and note-taking (M = 4.46)—were used with the highest frequency, suggesting that students placed strong emphasis on deliberate vocabulary review and consolidation. Meanwhile, Table 4 shows that inferencing (M = 4.20) was the most prominent strategy among those aligned with the belief that vocabulary should be learned through use. Although activation strategies showed relatively lower usage (M = 3.11), interview data suggest that students still found them valuable for applying new words in productive EELA settings. These results indicate that students drew flexibly from both memorization- and usage-oriented strategies depending on the context and purpose of vocabulary learning, especially when engaging in receptive input such as reading or watching videos.

The following sections present students' application of each strategy type, first identified from questionnaire data, then supported by relevant interview excerpts:

Inferencing and Metacognitive Strategies

Inferencing (Mean = 4.20, SD = 0.202, Highest) and metacognitive strategies (Mean = 3.57, SD = 0.491, High) were frequently used by students, particularly during receptive EELA activities. Students often described how they inferred word meanings from context and monitored their understanding before confirming with other resources:

> *I usually try to infer the meaning from context first, especially when I'm reading novels or articles. For example, I guessed "apprehensive" meant "anxious" from its context. If I'm still unsure, I'll check the dictionary for confirmation.*
>
> *(Student 1)*

> *I often guess meanings from context in conversations or movies, where checking interrupts the flow. For example, I inferred "sarcastic" from a witty comment in a movie and later confirmed it by looking it up.*
>
> *(Student 4)*

> *When I hear a new word while watching a movie, I try to infer its meaning, then I write it down and repeat it during class discussions.*
>
> *(Student 12)*

Dictionary Use and Note-taking

Students relied heavily on dictionary use (Mean = 4.25, SD = 0.826, Highest) and note-taking (Mean = 4.46, SD = 0.700, Highest) to support vocabulary learning in activities such as reading and video

watching. The following excerpts demonstrate how students integrated these strategies into their learning routines:

> *When I encounter new vocabulary while watching TV shows, I immediately pause and use an online dictionary to check its meaning and pronunciation. I write the word and its definition in a notebook, then later create sentences to practice.*
>
> *(Student 1)*

> *I screenshot captions containing new words. I later use a dictionary to understand their meanings and write example sentences to apply them.*
>
> *(Student 7)*

> *When I encounter a difficult word in reading, I check it in a dictionary and write it down in my notebook for later review.*
>
> *(Student 8)*

Encoding and Rehearsal Strategies

Encoding (Mean = 3.26, SD = 0.576, High) and rehearsal (Mean = 3.40, SD = 0.730, High) were used to deepen understanding and aid memory retention, especially for complex vocabulary. Several students shared creative techniques for breaking down words and repeating them for long-term recall:

> *Breaking words into roots and suffixes is my go-to strategy. For example, I learned "benevolent" by breaking it into "bene-" (good) and "-volent" (wishing).*
>
> *(Student 2)*

> *I rely on storytelling to remember words. For example, I created a short story involving a "meticulous" detective solving a case.*
>
> *(Student 6)*

> *Rewriting words multiple times in different contexts helps me retain them. For example, I wrote "integrity" in sentences about honesty, leadership, and personal values.*
>
> *(Student 10)*

Activation Strategies

Activation strategies were used less frequently (Mean = 3.11, SD = 1.362, High), but they played an important role in applying new vocabulary during productive EELA contexts. Students described their efforts to actively use new words in real-life situations to reinforce retention:

> *I always try to use new vocabulary in my daily life. For example, after learning the word "meticulous", I described my friend's approach to organizing her wedding as meticulous during a conversation.*
>
> *(Student 1)*

> *I actively apply new words in my conversations. For instance, I learned "spontaneous" from a travel vlog, and when my friends planned a sudden weekend trip, I said, "This is such a spontaneous plan!"*
>
> *(Student 2)*

> *I try to use new words in my writing or during team games. If I don't use them, I forget them quickly.*
>
> *(Student 6)*

The findings for Research Question 2 indicate that students employed a diverse set of vocabulary learning strategies, with inferencing, dictionary consultation, and note-taking being the most commonly used, as reflected in questionnaire data. Activation strategies, although less frequent, were particularly valued in productive EELA contexts for reinforcing vocabulary use. The flexibility observed in students' strategy selection suggests an evolving approach to vocabulary learning, shifting from traditional rote memorization to more autonomous, context-driven techniques. Interview results further revealed how students tailored strategy use based on the nature of the EELA activity and personal learning preferences, underlining the dynamic and individualized nature of vocabulary acquisition outside formal classroom settings. These patterns suggest that students' vocabulary learning strategies are not only shaped by personal beliefs but also by the nature of the EELA they engage in.

Research Question 3: Types of Extramural Vocabulary Learning Activities

This section first presents qualitative insights into the types of Extramural English Learning Activities (EELA) that students engaged in for vocabulary development. Data collected from 13

interviewees provide rich descriptions of how these activities supported vocabulary acquisition through both productive and receptive experiences.

Productive Extramural Vocabulary Learning Activities

Productive EELA activities, involving active language use, were perceived by many participants as effective for vocabulary learning. Students engaged in activities such as playing digital games, participating in social media interactions, joining conversation clubs, attending webinars, and contributing to online forums. These experiences allowed them to apply new vocabulary in authentic contexts, thus enhancing retention and communicative competence:

> *Joining English conversation clubs is my favorite activity. Talking with peers helps me use new vocabulary in practical contexts. For instance, I learned words like itinerary and layover when discussing travel.*
>
> *(Student 3)*

> *I play multiplayer online games like League of Legends. The in-game communication and strategies help me learn action words such as flank, ambush, and retreat. Communicating with teammates improves my vocabulary usage.*
>
> *(Student 6)*

> *I enjoy browsing Instagram and Pinterest for captions and quotes. For example, I learned the word wanderlust from a travel blog, which perfectly describes my desire to explore new places. Social media keeps my vocabulary trendy.*
>
> *(Student 7)*

> *Attending online webinars and conferences is a great way to learn professional vocabulary. For instance, I learned business terms like 'synergy' and 'scalability' during a marketing webinar. These activities enhance formal communication.*
>
> *(Student 8)*

> *Using language-learning apps like Duolingo keeps my vocabulary practice consistent. The app introduces words in thematic contexts, such as 'airport vocabulary,' which I later encountered during my travels.*
>
> *(Student 11)*

> *I participate in online forums related to my hobbies, such as photography. These discussions expose me to niche vocabulary like aperture and exposure, which are essential for describing technical aspects of photography.*
>
> *(Student 13)*

These responses show that productive EELA provided meaningful opportunities for students to engage with new vocabulary in a variety of contexts. Games and apps fostered interactive learning, social media and forums encouraged interest-based vocabulary acquisition, conversation clubs developed real-life speaking skills, and webinars enhanced formal and professional language use.

Receptive Extramural Vocabulary Learning Activities

Receptive activities, focusing on language input and comprehension, were widely practiced and highly valued by participants. These included watching videos, reading, listening to audio content, and analyzing music lyrics. Such activities allowed students to absorb vocabulary naturally through exposure to authentic language in diverse domains:

> *I watch American TV series like Friends and Breaking Bad. These shows expose me to natural conversations and slang that are not typically taught in textbooks. For example, I learned the phrase break the ice and now use it in casual conversations. Watching subtitles helps with pronunciation and spelling.*
>
> *(Student 1)*

> *I prefer reading novels, especially by authors like J.K. Rowling or Dan Brown. Novels introduce me to descriptive language, idioms, and uncommon words. For example, I learned the word whimsical from Harry Potter and started using it.*
>
> *(Student 2)*

> *Listening to motivational podcasts like The Tim Ferriss Show introduces me to terms like resilience and mindset, which are relevant to personal development. Repeated exposure helps me remember their meanings and usage.*
>
> *(Student 4)*

Watching cooking tutorials on YouTube helps me expand vocabulary in a specific domain. Words like marinate, sauté, and broil were unfamiliar to me before, but now I can use them in conversations about recipes.

(Student 5)

Listening to English songs and analyzing lyrics helps me learn idiomatic expressions. For example, from Adele's 'Rolling in the Deep,' I understood the phrase 'depth of emotion.' Music makes learning enjoyable and memorable.

(Student 9)

Reading newspapers like The New York Times or The Guardian helps me understand formal writing and expand vocabulary in current affairs. For example, I learned the term bipartisan when reading about U.S. politics.

(Student 10)

Watching nature documentaries like Planet Earth helps me learn scientific terms related to animals and ecosystems. For example, I learned words like 'habitat' and 'biodiversity,' which I use in discussions about the environment.

(Student 12)

These examples demonstrate that receptive EELA provided a rich linguistic environment where students could encounter vocabulary in natural settings. Videos and documentaries offered exposure to colloquial and scientific language, reading expanded formal and descriptive vocabulary, and audio content like podcasts and songs reinforced language learning through auditory repetition and enjoyment.

Overall, the findings show that students engaged in a diverse range of both productive and receptive EELA, each contributing uniquely to their vocabulary acquisition. Productive activities promoted active usage and practical application of vocabulary, while receptive activities facilitated natural absorption and deeper comprehension. The complementary nature of these activities highlights the dynamic and multifaceted role of EELA in supporting vocabulary development beyond formal classroom instruction.

Supplementary Quantitative Findings on EELA Engagement

To supplement and validate the qualitative findings, quantitative data from the questionnaire were analyzed to identify the frequency of students' engagement in different types of Extramural English Learning Activities (EELA). This section is placed after qualitative findings to provide numerical support

and contextualize themes emerging from student responses. A total of 128 students responded to a checklist of ten common EELA activities, selected based on themes emerging from interviews and supported by existing literature.

Based on the categorization proposed by Sundqvist (2009) and Zhang et al. (2021), the ten activities were grouped into two main types: receptive EELA, emphasizing language input (e.g., watching, reading, and listening), and productive EELA, involving language output or interaction (e.g., speaking, writing, or online participation). Although certain activities (e.g., social media or app use) may include both receptive and productive elements, they were categorized based on students' predominant mode of engagement as reported in the data. This classification is summarized in Table 5.

Table 5

Classification of Extramural English Learning Activities

Category	Activities	Item No.
Receptive EELA Activity	Watching English videos	Q1
	Reading English novels	Q2
	Reading English newspapers	Q3
	Listening to English podcasts	Q4
	Listening to English songs	Q5
Productive EELA Activity	Joining English conversation clubs	Q6
	Participating in online forums	Q7
	Attending online webinars or courses	Q8
	Browsing English content on Instagram or Pinterest	Q9
	Using language-learning apps	Q10

Although certain activities, such as social media browsing or language-learning apps, may incorporate both receptive and productive elements, they were categorized based on students' predominant usage as described in their responses.

In addition, two students listed language exchange with foreign friends and English dubbing practice under "Other" in the questionnaire. While not among the ten common items, these self-initiated activities also reflect productive EELA and highlight students' creativity in engaging with English outside the classroom.

The frequency results for each activity are presented in Tables 6 and 7. As shown in Table 6, among receptive activities, listening to English songs and watching English videos were the most frequently practiced, consistent with their accessibility and entertainment value. As shown in Table 7, in the productive

category, the most commonly reported activities were using language-learning apps (31.25%), browsing English content on social media platforms (27.34%), and attending online webinars or courses (25.00%).

Table 6

Frequency of Receptive EELA Engagement (N = 128)

Receptive Activity	**Frequency (n)**	**Percentage (%)**
Listening to English songs	65	50.78%
Watching English videos	60	46.88%
Listening to English podcasts	55	42.97%
Reading English newspapers	50	39.06%
Reading English novels	45	35.16%

Table 7

Frequency of Productive EELA Engagement (N = 128)

Productive Activity	**Frequency (n)**	**Percentage (%)**
Using language-learning apps	40	31.25%
Browsing Instagram or Pinterest	35	27.34%
Attending English webinars or courses	32	25.00%
Joining English conversation clubs	30	23.44%
Participating in English online forums	25	19.53%

These quantitative findings complement the qualitative results by highlighting a discrepancy between students' perceived effectiveness of productive EELA and their actual engagement patterns. Although many participants regarded productive activities as more beneficial for vocabulary retention, their learning routines remained largely dominated by receptive practices. This indicates a pedagogical need to not only raise learners' awareness of productive opportunities but also provide structured support to help integrate such activities into their informal learning habits. Promoting a balanced engagement with both receptive and productive EELA may ultimately contribute to more effective and sustained vocabulary acquisition.

Discussion

The findings of this study indicate that Chinese undergraduate students actively engage in Extramural English Learning Activities (EELA), with a strong preference for receptive activities such as watching videos, reading, and listening to audio content. This may be due to their ease of access, lower

cognitive load, and alignment with traditional passive learning habits shaped by prior EFL experiences. This preference aligns with previous studies highlighting the accessibility and motivational appeal of receptive input in informal learning settings (Brevik, 2019; Eyckmans, 2017). However, while receptive activities were more commonly practiced, productive tasks—such as writing compositions and participating in online gaming—were perceived as more effective for long-term vocabulary retention. This supports Ahmed's (1989) assertion that vocabulary acquisition is deepened through active language use and contextual reinforcement.

In terms of strategy use, students employed a range of vocabulary learning strategies, including inferencing, dictionary consultation, and note-taking. Inferencing was the most frequently used strategy, especially during video watching and reading, which echoes Gu and Johnson's (1996) findings that learners often rely on contextual clues for meaning construction. The frequent use of dictionary tools and note-taking also reflects a metacognitive approach to vocabulary learning, as students consciously manage their input and review processes (Asgari & Mustapha, 2011; Mokhtar et al., 2009).

Moreover, students demonstrated a preference for learning contextual vocabulary over rote memorization. While memorization remained relevant for academic-focused vocabulary, contextual encounters through media and personal interests were viewed as more effective. This shift from traditional exam-driven learning, common in Asian contexts (Fan, 2003), to interest-based learning aligns with Oxford's (1990) observation that learner autonomy and meaningful engagement enhance vocabulary retention. The cognitive depth provided by contextual learning resonates with the principles of strategic self-regulation in language acquisition.

Connections Between Beliefs, EELA Types, and Strategy Use

A key finding of this study is the relationship between students' beliefs about vocabulary learning, the types of EELA they engaged in, and the strategies they applied. Students who believed that vocabulary should be memorized tended to engage more frequently in receptive activities, such as reading and watching videos, where they employed strategies like dictionary consultation, note-taking, and rehearsal. These activities supported focused study and repeated exposure, aligning with their preference for memory-based learning (Gu & Johnson, 1996; Mizumoto & Takeuchi, 2009).

Conversely, students who believed that vocabulary is best learned through use were more involved in productive EELA, including gaming, conversation clubs, and writing. These contexts encouraged the use of activation strategies and inferencing, allowing students to apply vocabulary in real-life, communicative situations. For example, participants who favored productive tasks often described using new words in conversations or online discussions, reflecting a belief in contextual learning and practical engagement (Eyckmans, 2017; Horwitz, 2016).

The belief in learning through memory was therefore associated with receptive EELA and cognitive strategies aimed at internalizing vocabulary through review. In contrast, belief in learning through use was connected to productive EELA and strategies that emphasized application and interaction. Some students demonstrated flexible beliefs, combining both approaches by memorizing technical terms and reinforcing them through real-life practice in EELA.

Furthermore, strategy use was closely linked to the nature of the EELA activity. In receptive EELA, such as video watching or reading, students frequently relied on inferencing, dictionary use, and note-taking to construct meaning and retain vocabulary. In productive EELA, they favored activation strategies, applying new words in speech and writing. This dual pattern supports Sundqvist's (2009) argument that effective vocabulary development depends on a balance of input-focused and output-focused activities.

The impact of productive EELA was particularly noteworthy in supporting vocabulary activation. Although fewer students engaged in such activities, those who did reported stronger recall and more frequent application of new vocabulary. This observation supports Subekti and Lawson's (2007) conclusion that vocabulary production is critical for retention, as it involves deeper cognitive processing and practical use. The dual role of EELA—providing both exposure and activation opportunities—reinforces the idea that vocabulary development benefits from a balance of input and output-focused activities (Sundqvist, 2009). Moreover, the alignment between learner beliefs, activity choices, and strategy use highlights the dynamic and reciprocal nature of informal vocabulary learning, where each element informs and reinforces the others.

These findings underscore the multifaceted nature of vocabulary learning through EELA, emphasizing learners' strategic agency and the importance of integrating informal learning experiences into formal instructional contexts.

Overall, the interaction between students' beliefs, strategy choices, and EELA participation highlights the importance of aligning pedagogical approaches with learners' preferences for more effective vocabulary development. These findings also reflect the conceptual framework underpinning this study, which illustrates how learners' beliefs, EELA participation, and strategy use are dynamically interconnected and mutually reinforcing in the process of vocabulary acquisition.

Conclusion and Recommendations

This study examined Chinese undergraduate students' engagement with Extramural English Learning Activities (EELA) for vocabulary acquisition in an English-medium university context. The results revealed that while receptive activities such as video watching and reading were more prevalent, productive tasks—including writing and online interaction—were perceived by some students as more

beneficial for vocabulary retention due to active language use opportunities. Students demonstrated active use of vocabulary learning strategies, particularly inferencing, note-taking, and dictionary consultation, and expressed a preference for contextual learning methods over rote memorization.

Moreover, the findings highlighted a dynamic interplay among students' beliefs, the types of EELA they participated in, and the strategies they employed, suggesting that these factors influence one another in a mutually reinforcing cycle. Students who believed in memorization preferred receptive activities and cognitive strategies like dictionary consultation, while those favoring learning through use engaged more in productive EELA, applying activation strategies. This alignment was interpreted from students' qualitative reflections and observed strategy patterns, but more in-depth causal analysis may be warranted.

From a pedagogical standpoint, these findings suggest that language instructors should incorporate EELA-inspired practices into classroom teaching to enhance vocabulary learning. Tasks such as media-based discussions, digital writing exercises, and the use of authentic materials can help bridge formal and informal learning, fostering both vocabulary growth and learner autonomy (Asyiah, 2017; Lai, 2019). Additionally, explicit instruction on vocabulary learning strategies can support students in transferring skills acquired through EELA into academic contexts, enhancing language proficiency and independent learning.

Educators should also consider students' individual beliefs about vocabulary learning when designing instruction. For learners inclined toward memorization, structured support for contextual learning can gradually enhance strategy diversity. For those preferring use-based learning, increased opportunities for language production, such as peer collaboration and real-world tasks, can deepen vocabulary retention and application.

While receptive activities provide necessary input, increasing opportunities for productive language use—through peer interaction, project-based learning, and technology-enhanced tasks—can further support vocabulary consolidation and practical application.

Limitations of this study include its single-institution focus and reliance on self-reported data. Future research should explore EELA engagement across different cultural and educational settings and assess the long-term effects of productive EELA on vocabulary development. Longitudinal studies could provide deeper insights into how sustained use of informal language practices contributes to academic and communicative success in EFL learners.

References

Ahmed, M. O. (1989). Vocabulary learning strategies. In P. Meara (Ed.), Beyond words (pp. 3–14). London: British Association for Applied Linguistics, in association with Centre for Information on Language Teaching and Research.

Alemi, M., & Tayebi, A. (2011). The influence of incidental and intentional vocabulary acquisition and vocabulary strategy use on learning L2 vocabularies. *Journal of Language Teaching and Research, 2*(1), 81. https://doi.org/10.4304/jltr.2.1.81-98

Asgari, A., & Mustapha, G. B. (2011). The type of vocabulary learning strategies used by ESL students in University Putra Malaysia. *English Language Teaching, 4*(2), 84.

Asyiah, D. N. (2017). The vocabulary teaching and vocabulary learning: Perception, strategies, and influences on students' vocabulary mastery. *Journal Bahasa Lingua Scientia, 9*(2), 293–318.

Bai, Z. (2018). An analysis of English vocabulary learning strategies. *Journal of Language Teaching and Research, 9*(4), 849–855. https://doi.org/10.17507/jltr.0904.24

Brevik, L. M. (2019). Gamers, surfers, social media users: Unpacking the role of interest in English. *Journal of Computer Assisted Learning, 35*(5), 595–606. https://doi.org/10.1111/jcal.12362

Calafato, R., & Clausen, T. (2024). Vocabulary learning strategies in extramural English gaming and their relationship with vocabulary knowledge. *Computer Assisted Language Learning,* 1-19. https://doi.org/10.1080/09588221.2024.2328023

Coskun, A., & Mutlu, H. T. (2017). Investigating High School Students' Use of Extramural English: A Scale Development Study. *Online Submission, 6*(1), 571-590.

Creswell, J. W., & Clark, V. L. P. (2017). Designing and conducting mixed methods research. Sage publications.

Eyckmans, J. (2017). Game on! Young learners' incidental language learning of English prior to instruction. *Studies in Second Language Learning and Teaching, 7*(4), 673–694. https://doi.org/10.14746/ssllt.2017.7.4.6

Fajt, B. (2021). Hungarian secondary school students' extramural English interests: The development and validation of a questionnaire. *Working Papers in Language Pedagogy, 16*, 36–53. https://doi.org/10.61425/wplp.2021.16.36.53

Fan, M. (2003). Frequency of use, perceived usefulness, and actual usefulness of second language vocabulary strategies: A study of Hong Kong learners. *Modern Language Journal, 87*(2), 222–241. https://doi.org/10.1111/1540-4781.00187

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175–191. https://doi.org/10.3758/BF03193146

Griffiths, C. (2007). Language learning strategies: Students' and teachers' perceptions. *ELT Journal, 61*(2), 91–99. https://doi.org/10.1093/elt/ccm001

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Gu, Y. (2003). Fine brush and freehand: The vocabulary learning art of two successful Chinese EFL learners. *TESOL Quarterly, 37*(1), 73–104. https://doi.org/10.2307/3588466

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

Horwitz, E. K. (1988). Beliefs about language learning inventory (BALLI). *University of Texas.* https://doi.org/10.2307/327506

Horwitz, E. K. (2016). Factor structure of the foreign language classroom anxiety scale comment on Park (2014). *Psychological Reports, 119*(1), 71–76. https://doi.org/10.1177/0033294116653368

Jakobsson, J. (2018). A study of the types, frequency and perceived benefits of extramural activities on Norwegian 10th graders' development of English as a foreign language (Master's thesis, University of Stavanger, Norway).

Lai, C., Liu, Y., Hu, J., Benson, P., & Lyu, B. (2022). Association between the characteristics of out-of-class technology-mediated language experience and L2 vocabulary knowledge. *Language, Learning and Technology, 26*(1), 1-24. https://hdl.handle.net/10125/73485

Lai, C. (2019). The influence of extramural access to mainstream culture social media on ethnic minority students' motivation for language learning. *British Journal of Educational Technology, 50*(4), 1929–1941. https://doi.org/10.1111/bjet.12693

Lee, J. S. (2019). Informal digital learning of English and second language vocabulary outcomes: Can quantity conquer quality? *British Journal of Educational Technology, 50*(2), 767–778. https://doi.org/10.1111/bjet.12599

Mizumoto, A., & Takeuchi, O. (2009). Examining the effectiveness of explicit instruction of vocabulary learning strategies with Japanese EFL university students. *Language Teaching Research, 13*(4), 425–449. https://doi.org/10.1177/1362168809341511

Mokhtar, A. A., Rawian, R. M., Yahaya, M. F., Abdullah, A., & Mohamed, A. R. (2009). Vocabulary learning strategies of adult ESL learners. *The English Teacher, 38*(1). https://doi.org/10.5539/elt.v3n1p71

Oxford, R. L. (1990). Language learning strategies: What every teacher should know. *Newbury House Publishers*. https://doi.org/10.5070/l411004984

Schmitt, N. (1997). Vocabulary learning strategies. *Vocabulary: Description, acquisition and pedagogy, 199227*, 4-6.

Subekti, N. B., & Lawson, M. J. (2007). Vocabulary acquisition strategies of Indonesian postgraduate students through reading. *International Education Journal, 8*(2), 485–496.

Sundqvist, P. (2009). Extramural English matters: Out-of-school English and its impact on Swedish ninth graders' oral proficiency and vocabulary (Doctoral dissertation, Karlstad University).

Sundqvist, P. (2024). Extramural English as an individual difference variable in L2 research: Methodology matters. *Annual Review of Applied Linguistics,* 1-13. https://doi.org/10.1017/S0267190524000072

Zhang, R., Zou, D., Cheng, G., Xie, H., Wang, F. L., & Au, O. T. S. (2021). Target languages, types of activities, engagement, and effectiveness of extramural language learning. *PloS One, 16*(6), e0253431. https://doi.org/10.1371/journal.pone.0253431

About the authors

WANG YUE received her bachelor's degree in Thai from Guangxi University of Foreign Languages, China. She is currently a student in the M.Ed. Program in Bilingual Education at Suryadhep Teachers College, Rangsit University. She has experience working as a teaching assistant at a private university in Bangkok.

Sumalee Chinokul is an Associate Professor in the M.Ed. Program in Bilingual Education, Suryadhep Teachers College, Rangsit University. Her research concentration includes English language teacher education, English for Specific Purposes, Classroom-based assessment, and research in English language Instruction.

Appendix 1: Questionnaire Questions

No.	Strategies	Items
Beliefs about vocabulary learning		
1	Words should be memorized	1. Once the English words of all my native language meanings have been remembered, English is learned.
		2. The best way to remember words is to memorize word lists or dictionaries.
		3. The purpose of learning a word is to remember it.
		4. A good memory is all you need to learn a foreign language well.
		5. Repetition is the best way to remember words.
		6. You can only learn a large vocabulary by memorizing a lot of words.
2.	Words should be learned through use	7. The meanings of a large amount of words can be picked up through reading.
		8. Learners should pay attention to expressions (e.g., pick up) and collocations (e.g., heavy rain; strong wind) that go with a word.
		9. Learners can learn vocabulary simply through reading a lot.
		10. The least a learner should know about a word is its spelling, pronunciation, meaning, and its basic usage.
Metacognitive strategies		
1.	Selective attention	11. I know whether a new word is important in understanding a passage.
		12. I know which words are important for me to learn.
		13. When I meet a new word or phrase, I know clearly whether I need to remember it.
2.	Self-initiation	14. Besides textbooks, I look for other readings that fall under my interest.
		15. I wouldn't learn what my English teacher doesn't tell me to learn. (Reversed value)
		16. I only focus on things that are directly related to examinations. (Reversed value)
		17. I wouldn't care much about vocabulary items that my teacher does not explain in class. (Reversed value)
Inferencing		
1.	Guessing	18. I make use of the logical development in the context (e.g., cause and effect) when guessing the meaning of a word.

No.	Strategies	Items
	strategies	19. I use common sense and knowledge of the world when guessing the meaning of a word.
		20. I check my guessed meaning in the paragraph or whole text to see if it fits in.
		21. When I don't know a new word in reading, I use my background knowledge of the topic to guess the meaning of the new word.
		22. I look for explanations in the reading text that support my guess about the meaning of a word.
		23. I make use of the grammatical structure of a sentence when guessing the meaning of a new word.
		24. I make use of the part of speech of a new word when guessing its meaning.
Using dictionary		
1.	Dictionary strategies	25. When I see an unfamiliar word again and again, I look it up.
		26. When not knowing a word prevents me from understanding a whole sentence or even a whole paragraph, I look it up.
		27. I look up words that are important to the understanding of the sentence or paragraph in which it appears.
		28. I pay attention to the examples when I look up a word in a dictionary.
		29. When I want to have some deeper knowledge about a word that I already know, I look it up.
		30. When I want to know more about the usage of a word that I know, I look it up.
		31. I check the dictionary when I want to find out the similarities and differences between the meanings of related words.
Taking notes		
1.	Choosing which word to put into notebook	32. I make a note when I think the meaning of the word I'm looking up is commonly used.
		33. I make a note when I think the word I'm looking up is related to my personal interest.
		34. I make a note when I see a useful expression or phrase.
2.	Deciding what information goes	35. I write down the English explanations of the word I look up.
		36. I write down both the meaning in my native language and the English explanation of the word I look up.

No.	Strategies	Items
	into notes	37. I note down examples showing the usages of the word I look up.
Rehearsal		
1.	Use of word lists	38. I go through my vocabulary list several times until I remember all the words on the list.
		39. I make vocabulary cards and take them with me wherever I go.
		40. I make regular reviews of new words I have memorized.
2.	Oral repetition	41. When I try to remember a word, I say it aloud to myself.
		42. When I try to remember a word, I repeat its pronunciation in my mind.
		43. Repeating the sound of a new word to myself would be enough for me to remember the word.
3.	Visual repetition	44. When I try to remember a word, I write it again and again.
		45. I memorize the spelling of a word letter by letter.
		46. I write both the new words and their translation in my native language again and again in order to remember them.
Encoding		
1.	Visual encoding	47. I act out some words in order to remember them better (e.g., jump).
		48. I create a picture in my mind to help me remember a new word.
		49. To help me remember a word, I try to "see" the spelling of the word in my mind.
2.	Auditory encoding	50. I put words that sound similar together in order to remember them.
		51. When words are spelled similarly, I remember them together.
		52. When I try to remember a new word, I link it to a sound-alike word that I know.
3.	Use of word-structure	53. When I learn new words, I pay attention to prefixes, roots, and suffixes (e.g., inter-nation-al).
		54. I intentionally study how English words are formed in order to remember more words.
		55. I memorize the commonly used roots and prefixes.
4.	Contextual encoding	56. When I try to remember a word, I also try to remember the sentence in which the word is used.
		57. I put words in set expressions or sentences in order to remember them.

No.	Strategies	Items
		58. I remember a new word together with the context where the new word appears.
Activation		
1.	Activation	59. I make up my own sentences using the words I just learned.
		60. I try to use the newly learned words as much as possible in speech and writing.
		61. I try to use newly learned words in real situations.
		62. I try to use newly learned words in imaginary situations in my mind.

Appendix 2: Interview Questions

1. (1) What types of extracurricular activities do you usually engage in to learn English vocabulary?
   (2) How do these activities help you in learning new vocabulary?
2. (1) In your opinion, what is the most effective way to learn new vocabulary?
   (2) Do you prefer memorizing words directly, or learning them through real-life use? Why?
3. (1) When you encounter new vocabulary in these activities, what methods do you typically use to understand and remember them? (e.g., using a dictionary, taking notes, guessing the meaning from context, or repetition)
4. What strategies do you find most helpful for remembering vocabulary long-term?
5. When you encounter an unfamiliar word, do you always check its meaning, or do you sometimes try to infer it from context?
6. (1) Do you use any specific memory strategies to help you learn vocabulary, such as associating words with images, sounds, or breaking them down into roots and suffixes?
   (2) How effective are these methods for you?
7. (1) Do you try to use new vocabulary you've learned in your daily life or in conversations?
   (2) Could you provide an example of how you apply a new word?