



## **Metacognition and modality: Exploring gender disparity in the frequency of vocabulary learning strategies among university ESL students**

**Khairiah Syahabuddin\*✉, Sa'i Sa'i\*\*, Alfiatunnur Alfiatunnur\*\*\*, Nashriyah Nashriyah\*\*\*\*, Ricky Sriyanda\*\*\*\*\*, Tijan Al-Darary\*\*\*\*\***

*\*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia  
Email: khairiah.syahabuddin@ar-raniry.ac.id*

*\*\*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia  
Email: sai.malih@ar-raniry.ac.id*

*\*\*\*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia  
Email: alfiatunnur@ar-raniry.ac.id*

*\*\*\*\*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia  
Email: nashriyah@ar-raniry.ac.id*

*\*\*\*\*\*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia  
Email: rickysriyanda7@gmail.com*

*\*\*\*\*\*Universitas Pendidikan Indonesia, Bandung, Indonesia  
Email: tijanaldarary@gmail.com*

### **ABSTRACT**

*Vocabulary plays a crucial role in second language acquisition, and effective vocabulary learning strategies can significantly enhance language proficiency. However, while various strategies have been studied extensively, the influence of gender on vocabulary learning preferences remains insufficiently explored. This study addresses that gap by examining the types of vocabulary learning strategies used by male and female students in the English Language Education Department and analysing how these strategies are implemented in their learning processes. The purpose of this study, which employed a mixed-method approach using quantitative and qualitative techniques, is to identify the dominant strategies used by each gender and determine whether significant differences exist between male and female learners in their approach to vocabulary development. Thirty students (15 males and 15 females) participated by completing a vocabulary learning strategy questionnaire, followed by in-depth interviews with three male and three female students to gain richer insights into their practical strategy use. The results indicate that both male and female students predominantly use metacognitive strategies to build their vocabulary. Female students, however, consistently showed higher engagement across all five categories of strategies: metacognitive, determination, social, memory, and cognitive.*

✉ Corresponding author:

Email Address: khairiah.syahabuddin@ar-raniry.ac.id

Received: August 23, 2025; Accepted: September 21, 2025; Published: September 30, 2025

Copyright © 2025 Khairiah Syahabuddin, Sa'i Sa'i, Alfiatunnur Alfiatunnur, Nashriyah Nashriyah, Ricky Sriyanda, Tijan Al-Darary

DOI: <http://dx.doi.org/10.22373/equality.v11i2.32046>

*Interview responses supported these findings and revealed that both genders commonly utilized strategies such as watching movies, reading, practicing speaking, and group discussions. Interestingly, only male students reported using vocabulary games as a learning tool. This study contributes to the field of second language learning by highlighting gender-based tendencies in strategy use, which can help educators design more inclusive and effective teaching approaches.*

**Keywords:** Vocabulary Learning Strategies (VLS); Gender Disparity; Second Language Acquisition (SLA); English Education Students; Metacognitive Strategy.

### ABSTRAK

*Kosakata memainkan peran penting dalam pemerolehan bahasa kedua, dan strategi pembelajaran kosakata yang efektif dapat meningkatkan kemahiran berbahasa secara signifikan. Namun, meskipun berbagai strategi telah dipelajari secara ekstensif, pengaruh gender terhadap preferensi pembelajaran kosakata masih kurang dieksplorasi. Studi ini mengatasi kesenjangan tersebut dengan memeriksa jenis-jenis strategi pembelajaran kosakata yang digunakan oleh mahasiswa pria dan wanita di Jurusan Pendidikan Bahasa Inggris dan menganalisis bagaimana strategi-strategi ini diimplementasikan dalam proses pembelajaran mereka. Tujuan dari studi ini, yang menggunakan pendekatan metode campuran dengan menggunakan teknik kuantitatif dan kualitatif, adalah untuk mengidentifikasi strategi dominan yang digunakan oleh setiap gender dan untuk menentukan apakah ada perbedaan yang signifikan antara pelajar pria dan wanita dalam pendekatan mereka terhadap pengembangan kosakata. Tiga puluh mahasiswa (15 pria dan 15 wanita) berpartisipasi dengan menyelesaikan kuesioner strategi pembelajaran kosakata, diikuti dengan wawancara mendalam dengan tiga mahasiswa pria dan tiga mahasiswa wanita untuk mendapatkan wawasan yang lebih kaya tentang penggunaan strategi praktis mereka. Hasilnya menunjukkan bahwa baik siswa laki-laki maupun perempuan dominan menggunakan strategi metakognitif untuk membangun kosakata mereka. Namun, siswa perempuan secara konsisten menunjukkan keterlibatan yang lebih tinggi di kelima kategori strategi metakognitif, determinasi, sosial, memori, dan kognitif. Tanggapan wawancara mengungkapkan bahwa kedua jenis kelamin umumnya menggunakan strategi seperti menonton film, membaca, berlatih berbicara, dan diskusi kelompok. Menariknya, hanya siswa laki-laki yang melaporkan menggunakan permainan kosakata sebagai alat pembelajaran. Studi ini berkontribusi pada bidang pembelajaran bahasa kedua dengan menyoroti kecenderungan berbasis gender dalam penggunaan strategi, yang dapat membantu para pendidik merancang pendekatan pengajaran yang lebih inklusif dan efektif.*

**Kata Kunci:** Strategi Pembelajaran Kosakata (VLS); Ketimpangan Gender; Akuisisi Bahasa Kedua (SLA); Mahasiswa Pendidikan Bahasa Inggris; Strategi Metakognitif.

## 1. INTRODUCTION

Learning a second language is based on the skills of listening, speaking, reading and writing. Of these, vocabulary is widely regarded as the most vital (Nation, 2013). It is the essential component of communication that makes it possible for learners to comprehend others and convey their own ideas. However, as Hinkel (2010) has pointed out, students can still have difficulty in meaningfully communicating despite being "able to incorporate grammatical items into their language use writing" if they do not possess a sufficient vocabulary. It is well established that a rich vocabulary is important in order to engage meaningfully in academic and social language use (Schmitt & Schmitt, 2020).

Vocabulary learning, however, is not automatic or incidental—it requires deliberate practice, repeated exposure, and strategic engagement (Elgort, 2011). To address this challenge, second language learners often turn to vocabulary learning strategies (VLS), which facilitate vocabulary acquisition and retention. These strategies include identifying new words through guessing from context, using dictionaries, applying memory techniques, analyzing word formation, and engaging in conscious review and repetition (Chou, 2024; Peters, 2016). The effectiveness of these strategies depends not only on learners' linguistic abilities but also on their preferences, motivation, exposure, and contextual learning environment (Lee et al., 2023).

One of the learner variables that may influence the choice and frequency of VLS use is gender. Prior research has shown that male and female learners may differ in their approach to language learning, including the types of strategies they adopt (Montero-Saiz Aja, 2021). Despite this, studies investigating gender differences in vocabulary strategy use, especially in Indonesian educational contexts, remain limited (Sahin & Yuksel, 2020). Understanding these differences is essential, as it can inform more inclusive and adaptive pedagogical practices. It can also contribute to improving vocabulary instruction tailored to diverse learner needs.

This study aims to examine how male and female students in an English Education Department in Indonesia differ in their use of vocabulary learning strategies. It explores which strategies are most commonly used by each gender and investigates whether any significant differences emerge in their strategic preferences. The study also addresses whether gender-specific instructional interventions are necessary, or whether general training in vocabulary strategies is equally effective across genders. In doing so, it contributes to the limited but growing body of literature on gender-based variation in language learning strategy use.

## 2. LITERATURE REVIEW

### 2.1. *Type of Vocabulary*

Vocabulary is generally classified into two types: receptive and productive. Receptive vocabulary refers to the words learners can recognize and understand when encountered in reading or listening contexts, even if they are unable to use these words actively. It encompasses the ability to process a word's form, meaning, and contextual use (Nation, 2007). Research has consistently found that receptive vocabulary tends to be significantly larger than productive vocabulary, especially among learners at lower proficiency levels (Teng et al., 2024). For instance, a study involving Turkish university students showed that receptive vocabulary knowledge strongly predicted learners' listening and reading proficiency, emphasizing its fundamental role in overall language development (Webb et al., 2023). These findings suggest

that receptive vocabulary forms the foundation for effective language comprehension, supporting learners' advancement toward higher fluency levels (Amirjalili & Jabbari, 2018).

Productive vocabulary, in contrast, refers to the words learners can actively use in speaking and writing to convey meaning precisely. Unlike receptive knowledge, productive vocabulary requires more complex cognitive processes such as retrieving word forms, mastering collocations, and using words with appropriate grammatical and pragmatic accuracy (Lei & Reynolds, 2022). While receptive vocabulary is typically acquired more easily, productive vocabulary tends to lag and requires more effortful and deliberate strategies (Montero-Saiz, 2025). For example, studies grounded in the Involvement Load Hypothesis show that tasks requiring active output, like essay writing or oral presentations, contribute significantly to productive vocabulary development (Alsharif, 2022). Similarly, a mobile-assisted learning study with Iranian EFL learners found that digital flashcards enhanced both receptive and productive vocabulary, though the gains were greater for receptive knowledge, underscoring the importance of active retrieval in fostering productive language use (Zarrati et al., 2024).

## *2.2. Word Formation*

Word formation plays a central role in vocabulary expansion, enabling learners to understand how new words are built from known ones. One of the key processes is derivation, which involves adding prefixes and suffixes to base words to generate new meanings. Derivational morphology is vital in enriching learners' vocabulary and supporting language development (Nation, 2007). Empirical studies confirm that explicit instruction in morphological awareness, particularly derivational forms, significantly boosts learners' receptive and productive vocabulary size (Teng et al., 2024; Mustafa, 2019). For example, research on Iranian EFL learners indicated that knowledge of derivational patterns had a strong impact on reading comprehension and academic vocabulary growth (Webb et al., 2023). These findings underscore the pedagogical value of incorporating derivational instruction to enhance lexical competence.

Another key word-formation process is compounding—combining two or more words to form a single unit. This method is highly productive in English and typically results in transparent meanings, such as “classroom” or “notebook,” which are relatively easy for learners to understand (Azimi & Rahimi, 2024). Studies in applied linguistics have shown that compounding enables learners to expand their vocabulary by identifying semantic relationships between component words (Alsharif, 2022). Similarly, blending, which involves merging parts of words to create new forms, such as “brunch” from “breakfast” and “lunch”, represents a creative and increasingly common word-formation method. Recent research suggests that exposure to compound and blended words in authentic contexts, including digital learning environments, enhances both receptive recognition and productive usage in writing tasks (Ridwan & Jusoh, 2022).

Borrowing is also a vital mechanism in vocabulary development, especially in multilingual environments. It involves the adoption of words from other languages and their integration into the target lexicon. English, for example, has borrowed heavily from Latin, French, and more recently from global languages due to cultural and technological exchanges (Montero-Saiz, 2025). In EFL settings like Indonesia, borrowing often introduces culturally

relevant vocabulary that enriches learners' lexicons, though it can also pose difficulties in distinguishing native from loan words (Lei & Reynolds, 2022). Recent studies show that learners benefit from explicit instruction in borrowed and loan-translated terms, as this helps them understand shifts in meaning and use language appropriately in different contexts (Alsharif, 2022). Incorporating such instruction into classroom practices not only strengthens linguistic competence but also supports intercultural awareness, reflecting the increasingly global nature of English vocabulary.

### *2.3. Vocabulary Learning Strategies and Gender Differences*

Vocabulary Learning Strategies (VLS) are deliberate techniques that language learners use to acquire, retain, and retrieve vocabulary (Teng et al., 2025). These strategies are typically categorized into determination strategies (e.g., using a dictionary), cognitive strategies (e.g., repetition), metacognitive strategies (e.g., planning and evaluating learning), and social strategies (e.g., asking others for help) (Ridwan & Jusoh, 2022). VLS play a critical role in enabling learners to become more autonomous and effective in vocabulary acquisition (Alsharif, 2022). According to Nation's updated model, effective vocabulary learning requires both breadth that is knowing a large number of words and depth, understanding how to use them appropriately across different contexts (Nation, 2007).

Gender has been identified as a factor influencing learners' choice of strategies (Nur & Jusoh, 2022). Research indicates that female learners often prefer affective and social strategies, while male learners are more inclined toward cognitive and mechanical techniques (Lei & Reynolds, 2022). These preferences may be shaped by social, psychological, and educational influences (Alsharif, 2022). Recent studies further affirm that female students tend to adopt more diverse and frequent strategies, particularly those involving emotional and interpersonal engagement (Montero-Saiz, 2025).

In the Indonesian context, English is taught primarily in formal education settings with limited opportunities for real-life communication (Ridwan & Jusoh, 2022). Consequently, many learners rely heavily on traditional strategies such as memorization, translation, and teacher-directed learning (Ridwan & Jusoh, 2022). Although some students are beginning to incorporate more interactive and modern strategies, the prevailing approach still centres on conventional classroom methods (Alsharif, 2022). Nevertheless, the use of vocabulary strategies varies significantly across learners, influenced by factors like gender, motivation, and proficiency. This highlights the need for localized studies to better understand and support learners' strategic preferences (Chung, 2025; Alsharif, 2022).

## **3. METHOD**

### *3.1. Research Design*

This study followed a mixed-methods approach, combining questionnaires and interviews (see Johnson & Onwuegbuzie, 2019; Guetterman & Fetters, 2018; Fetters & Molina-Azorin (2020). It began by collecting quantitative data through questionnaires to identify general patterns or test specific hypotheses. Afterward, qualitative interviews were conducted to gain deeper insight into the statistical findings. This structure enables researchers to spot trends through the survey, then explore the reasons, perceptions, or contextual factors behind those trends through interviews. The process unfolds in several well-planned stages. Once the

questionnaire is developed and validated, the researchers analyze the survey responses to identify distinct patterns among groups or individuals (Gu, 2018; Alamer, 2025). These results then guide the selection of participants for semi-structured interviews, using purposive sampling. The goal is for the interviews to add context or explanation to particular quantitative outcomes.

Qualitative data is then carefully coded, typically through thematic analysis, and integrated with the quantitative findings. Together, these sources form broader, more comprehensive conclusions that answer the research questions in a more complete way. Experts in research design emphasize the importance of planning how and when to integrate both data types which is through strategies like connecting, building, and merging, so that the quantitative and qualitative parts work together instead of operating separately (Almalki, 2022).

### *3.2. Population and Sampling*

A population refers to the entire set of individuals or entities possessing certain characteristics defined by the researcher and used to draw conclusions (Nuryadi et al., 2017). This study targeted a population of 214 English students registered in the 2020 academic year. From this group, a sample of 30 students that is 15 males and 15 females was selected using purposive sampling. According to Ilker (2016), purposive sampling involves selecting participants based on specific criteria. The criteria for this study were: 1) being an English Education student from the 2020 academic year, and 2) having completed the Vocabulary and Pronunciation course with a minimum grade of A.

### *3.3. Data Collection*

#### *3.3.1. Questionnaire*

Data collection involves the researcher undertaking activities aimed at gathering the necessary information to answer the research questions. In this study, the instruments included a questionnaire and an interview. The questionnaire was the primary tool for addressing the second research question. This technique allows for indirect data collection without requiring face-to-face interaction (Creswell, 2008). The questionnaire was structured by the researchers based on Oxford (1990) and validated by an expert in the field. It contained 25 closed-ended questions, enabling participants to choose from pre-defined options. A Likert Scale was applied, offering four response choices: always (A), often (O), rarely (R), and never (N) (Johns, 2005). Joshi and Pal (2015) note that the Likert scale is a widely used method for gauging respondents' perceptions, attitudes, or opinions on a specific subject. In this study, responses to positive items were scored from 4 to 1, while negative items were reverse scored from 1 to 4.

#### *3.3.2. Interview*

Creswell (2008) describes qualitative interviews as a process where researchers ask open-ended questions and record participants' responses. In this study, semi-structured interviews were used. This method provides flexibility, as not all questions are fixed in advance, allowing the interviewer to pose follow-up questions spontaneously. Interviews were conducted with both male and female students from the English Education Department to gain insights into their vocabulary learning strategies. Each session lasted approximately 10 to 15 minutes.

## 4. FINDINGS AND DISCUSSION

### 4.1. Result of Questionnaire

The questionnaire was administered once to thirty participants to address the question: “What vocabulary-building strategies are employed by male and female English Department students?” The responses were statistically analyzed to explore this first research objective.

#### 4.1.1. Overall Strategies Used by Male and Female Students

The findings indicate that among the 30 participants (15 males and 15 females), there was no significant difference between genders in their overall use of vocabulary learning strategies. This outcome is consistent with prior research on Indonesian middle school students, which also found no major gender-based differences. However, that study did note that females slightly favoured determination strategies, while males leaned toward social strategies (Riandi, 2022). The following table is average scores of vocabulary strategies by gender.

**Table 1.**  
Average Scores of Vocabulary Strategies by Gender.

Strategy	Male Average	Female Average
Metacognitive	3.0	3.46
Social	2.97	3.08
Determination	2.84	3.37
Memory	2.83	3.06
Cognitive	2.53	2.96

#### 4.1.2. Metacognitive Strategies

Among all categories, metacognitive strategies were the most frequently used by both groups, while cognitive strategies ranked the lowest. This reflects findings from a 2022 mixed-method study involving university students, which reported that female learners tended to employ a broader range of strategies, particularly metacognitive and social, while male students more often favoured cognitive and compensation strategies (Efendi & Rachman, 2025; Shorten & Smith, 2017).

#### 4.1.3. Determination Strategies

Female participants reported slightly higher use (54%) than males (46%). These results align with prior studies indicating that female learners often gravitate toward self-managed strategies like using dictionaries or analysing word forms (Riandi, 2022).

#### 4.1.4. Social Strategies

The male participants recorded a 49% usage rate, while females scored slightly higher at 51%. Though this gap is minimal, it supports broader trends showing that women tend to prefer interactive and communicative learning techniques (Efendi & Rachman, 2025).

#### 4.1.5. Memory Strategies

Males scored 48% and females 52%. While the difference is not statistically significant, females demonstrated a marginal preference for mnemonic techniques and imagery, which support linking new vocabulary to prior knowledge.

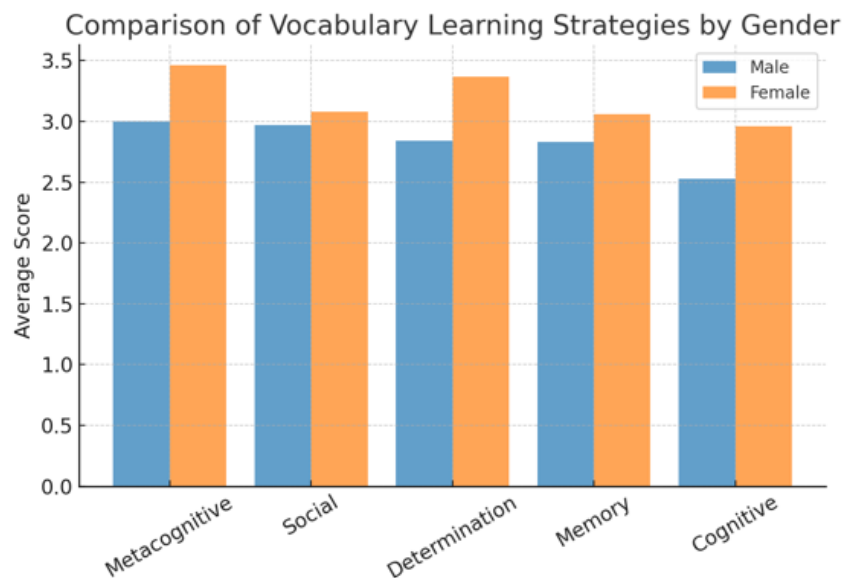
#### 4.1.6. Cognitive Strategies

This was the least used strategy type for both male (46%) and female (54%) respondents, suggesting a low overall reliance on repetition-based or mechanical methods.

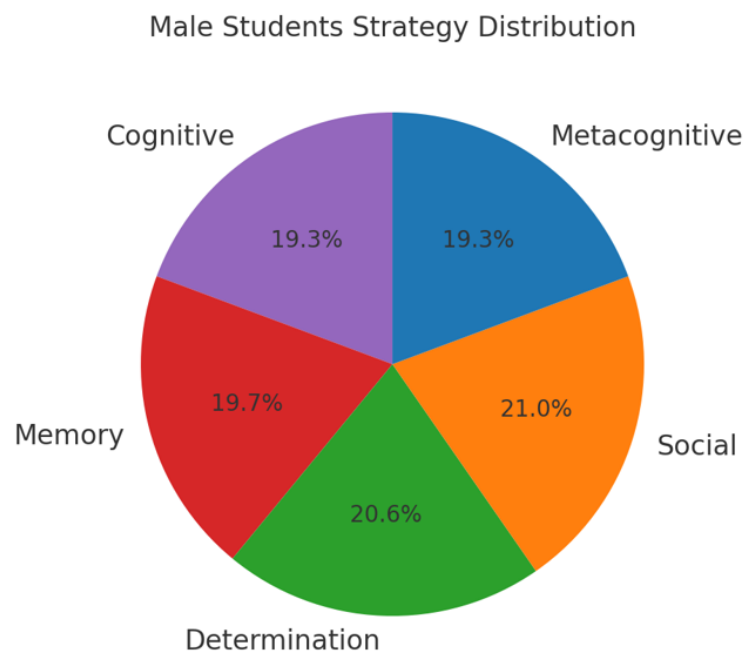
#### 4.1.7. Metacognitive Strategies

These were the most dominant strategies, with males reporting 45% and females 54%. This indicates a strong focus on planning, evaluating, and self-regulating vocabulary learning—such as reading, watching content, or engaging with native speakers for practical exposure.

The figures below show the comparison of vocabulary learning strategy by gender, followed by male students' strategy distribution; and female students' strategy distribution.

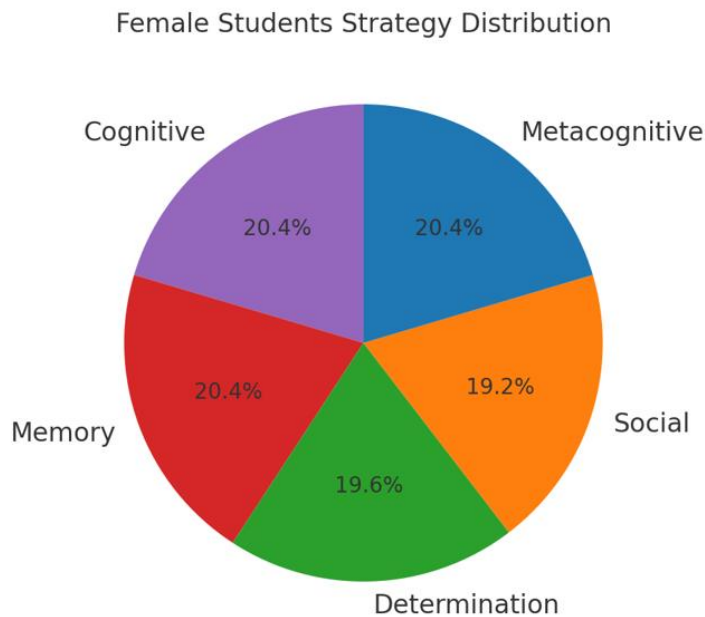


**Figure 1.** Comparison of Vocabulary Learning Strategies by Gender.



**Figure 2.** Male Students Strategy Distribution.





**Figure 3.** Female Students Strategy Distribution.

## 4.2. Result of Interview

### 4.2.1. Interview with Three Male Students

The interview session was conducted with three male participants, identified as M1, M2, and M3.

#### 4.2.1.1. Watching media (movies, music, etc.)

All three participants mentioned using this strategy. M1 explained that English-language movies, TV shows, podcasts, and YouTube videos were key to expanding his vocabulary. He frequently watched content with and without subtitles, noting unfamiliar words and looking up their meanings. M2 and M3 confirmed this method as part of their regular learning routine due to the wide range of vocabulary, idioms, slang, and pronunciation it offers.

*“I usually learn English by watching movies, memorizing vocabulary, reading books, ...and playing games.” (M3)*

#### 4.2.1.2. Memorizing and constructing sentences

M2 and M3 reported memorizing new vocabulary and immediately applying it in basic sentences. This combination helped them retain words and understand how to use them contextually.

*“I love watching movies, memorizing vocabulary, and trying to make simple sentences.” (M2)*

#### 4.2.1.3. Reading books and journals

M1 and M3 emphasized reading as a major strategy. M1 found it useful for exposing him to varied grammatical structures and contextual word usage. Both agreed that reading helped reinforce previously learned vocabulary while introducing new terms.

#### 4.2.1.4. *Practicing with a Mirror*

M1 and M2 described group discussions as valuable for enhancing speaking skills and vocabulary. They found this interactive environment helpful for feedback, peer correction, and maintaining motivation.

*“When I have free time, I read books or stand in front of the mirror to practice speaking...” (M1)*

#### 4.2.1.5. *Group discussions*

M1 and M2 described group discussions as valuable for enhancing speaking skills and vocabulary. They found this interactive environment helpful for feedback, peer correction, and maintaining motivation.

#### 4.2.1.6. *Playing games (uniquely identified by male participants)*

Unlike female students, M2 and M3 identified playing games as a distinct strategy they frequently use. They explained that games help them discover new vocabulary while interacting with other players, sometimes even with strangers in English. Because games are engaging and enjoyable, they were more inclined to dedicate time to learning vocabulary through this medium. Both students concluded that gaming is an effective way to gain practical vocabulary that can be applied in everyday life.

From the interviews, it can be summarized that male and female students generally use similar strategies: (1) watching movies, listening to music, podcasts, or YouTube; (2) memorizing vocabulary and forming sentences; (3) reading books, journals, or articles; (4) practicing speaking in front of a mirror; and (5) engaging in group discussions. However, playing games emerged as a unique strategy predominantly employed by male students.

#### 4.2.2. *Interview with Three Female Students*

The interview was conducted with three female participants, hereafter referred to as F1, F2, and F3.

##### 4.2.2.1. *Watching Movies, Listening to Music, Podcasts, or YouTube*

All three participants identified media exposure through movies, music, podcasts, and YouTube as a key strategy in developing vocabulary. F1 emphasized that such platforms provide authentic models of English, particularly in terms of accent, pronunciation, and speech pace.

*“There are several strategies that I use, such as watching movies, listening to music, podcasts, or YouTube, because these strategies provide me with examples of English used in real situations, including accent, speed, and pronunciation.” (F1)*

F2 and F3 supported this view, noting that YouTube in particular offers diverse opportunities for language learning, such as watching TV shows or listening to songs.

*“The main strategies I use to improve my vocabulary are listening to music, memorizing new words, reading books, and talking in front of a mirror.” (F3)*

They explained that this method allows them to focus on unfamiliar words, aiding comprehension of spoken discourse. Furthermore, they underlined that films and television programs present learners with natural expressions and a genuine flow of conversation.

#### 4.2.2.2. *Memorizing Vocabulary and Constructing Simple Sentences*

F1 and F3 also adopted the strategy of memorizing vocabulary combined with active sentence construction.

*"I like listening to music, memorizing vocabulary and then trying to make simple sentences, reading books, and practicing speaking alone in front of a mirror".*  
(F3)

On average, they selected five new words to study and focused not only on memorization but also on understanding word formation, including roots, prefixes, and suffixes. By subsequently applying these words in sentences, they sought to commit them to long-term memory. They reported that this deeper approach fostered logical connections between words, thereby facilitating retention and recall.

#### 4.2.2.3. *Reading Books, Journals, or Articles*

F2 preferred reading academic journals and articles to strengthen her vocabulary.

*"I use YouTube and read journals and articles to improve my skills in speaking, listening, reading, and writing, since I can gain a lot of knowledge from them."*  
(F2)

She regarded reading as an essential practice for intellectual development and for gaining insights that extend beyond language acquisition. F3 added that books serve as repositories of knowledge, ideas, and emotions, offering unique learning experiences. Both participants emphasized that reading materials combining familiar and complex concepts helped enhance their vocabulary, grammar, and syntax. In their view, reading significantly contributes to improved proficiency in both writing and speaking.

#### 4.2.2.4. *Practicing Speaking in Front of a Mirror*

All three participants (F1, F2, and F3) reported practicing speaking alone in front of a mirror. They typically devoted 5–10 minutes daily to this exercise. They explained that the activity assisted them in acquiring new vocabulary, improving pronunciation, and developing confidence in public speaking. According to them, this method was effective because the mirror provided immediate visual feedback and allowed them to simulate real communication scenarios.

*"Talking in front of a mirror is still one of the best things I can do to improve my pronunciation and presentation style."* (F3)

#### 4.2.2.5. *Group Discussion*

Finally, F1 and F2 stressed the value of group discussions as a collaborative learning strategy. They indicated that engaging in debates, speeches, and other interactive activities

within small groups motivated them to use English more actively and meaningfully. These sessions created opportunities to exchange ideas, expand vocabulary, and practice language use in authentic contexts. They also acknowledged that group discussions were particularly beneficial for English department students, as they provided a supportive environment for consistent practice and peer learning.

#### *4.2.3. Interview Findings: Comparison between Male and Female Students*

The interviews indicated that both male and female students of the English Language Education Department employed a variety of strategies to enhance their vocabulary. Common approaches across both groups included watching movies, listening to music, podcasts, or YouTube videos, memorizing new words and applying them in simple sentences, reading books and articles, practicing speaking alone in front of a mirror, and engaging in group discussions. These shared strategies suggest that regardless of gender, students tend to integrate both individual and social learning methods to strengthen their vocabulary knowledge (Oxford, 2020; Griffiths, 2018).

Despite these similarities, some notable differences were observed. Female learners tended to rely more heavily on reading journals, articles, and books as reliable tools for vocabulary development. They also placed greater emphasis on formal memorization and sentence-building techniques. For them, reading was not just a means of acquiring new words, but also a way to foster critical thinking and improve linguistic precision (Tong et al., 2023). Male learners, by contrast, preferred technology-based strategies such as listening to podcasts and playing online games. These activities exposed them to real-life language and informal vocabulary use. Both genders appreciated the value of group discussions, though their focus differed: female students highlighted the motivational support of group collaboration, while male students focused more on gaining peer feedback and correction during interaction (Lee et al., 2023; Alahmadi, 2020).

Overall, the findings indicate that both male and female students employed metacognitive and social strategies along with personal learning practices, though their preferences diverged. Female learners favoured academically structured approaches like reading and memorization, whereas males leaned toward interactive and entertainment-focused techniques such as gaming and digital media. These trends reflect broader patterns in gender-based learning, where females are often more inclined toward cognitive and analytical methods, while males tend to prefer exploratory and hands-on learning experiences (Dan et al., 2024; Pawlak, 2020).

## **5. CONCLUSION**

This study underscores the central role of vocabulary in second language acquisition and highlights the diverse strategies learners employ to strengthen their lexical knowledge. Evidence from recent research (2010–2025) reinforces the view that vocabulary knowledge is closely linked to learners' listening, speaking, reading, and writing abilities, serving as both the foundation of communication and a determinant of academic achievement. Without sufficient vocabulary, learners encounter persistent challenges in comprehension and production, irrespective of their grammatical competence, making vocabulary development indispensable for successful language learning.

Findings further confirm that vocabulary learning does not occur automatically; rather, it requires intentional engagement through strategies such as memorization, dictionary use, contextual inference, and collaborative learning. While some strategies have stood the test of time, recent advances in technology and learner autonomy have expanded opportunities for strategic learning, enabling students to personalize their approaches according to motivation, proficiency, and exposure. Importantly, strategy use is not uniform: factors such as individual learning styles and gender exert measurable influence. Although a few studies suggest gender-based variation in strategic preferences, results remain inconclusive, particularly within the Indonesian context. This gap underscores the need for further empirical work that integrates sociocultural variables into investigations of vocabulary learning strategies.

Overall, the synthesis of current literature suggests that effective vocabulary instruction should balance explicit strategy training with opportunities for incidental learning in authentic contexts. Teachers are encouraged to provide strategy awareness training, foster learner autonomy, and account for demographic variations without overgeneralizing. By combining foundational insights with contemporary findings, this study contributes to a more nuanced understanding of vocabulary learning strategies and their pedagogical implications. Future research should adopt longitudinal and mixed-methods designs to examine how learners' strategic behaviors evolve across time, contexts, and demographic profiles, thereby offering a more comprehensive framework for advancing vocabulary acquisition in second language education.

## References

- Alahmadi, N. (2020). Gender-based preferences in vocabulary learning strategies. *Arab World English Journal*, 11(3), 328–345.
- Alamer, A. (2025). Revisiting the validity of the vocabulary learning strategies questionnaire using confirmatory composite analysis: Setting new directions for the field. *International Journal of Applied Linguistics*, 35(1), 193-217.
- Almalki, S. (2022). Integrating quantitative and qualitative data in mixed methods research. *Journal of Mixed Methods Research*, 16(2), 123–140.
- Alsharif, R. (2022). Relationship between vocabulary learning strategies and vocabulary size: Evidence from Saudi female EFL learners. *International Journal of Education and Literacy Studies*, 10(1), 188-197.
- Amirjalili, F., & Jabbari, A. A. (2018). The impact of morphological instruction on morphological awareness and reading comprehension of EFL learners. *Cogent Education*, 5(1), 1523975.
- Chou, M. H. (2024). Validating the vocabulary learning strategies used by English as a foreign language university students in Taiwan. *RELC Journal*, 55(1), 128-143
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). California: SAGE Publications.
- Dan, Q., Bai, B., & Huang, Q. (2024). Gender differences in the relations between EFL students' classroom relationships and English language proficiency: The mediating role of self-regulated learning strategy use. *System*, 123, 103311. <https://doi.org/10.1016/j.system.2024.103311>

- Fetters, M. D., & Molina-Azorin, J. F. (2020). The journal of mixed methods research starts a new decade: Principles for bringing in the new and divesting of the old language of the field. *Journal of Mixed Methods Research*, 14(1), 3–10.
- Griffiths, C. (2018). *Lessons from good language learners*. Cambridge, UK: Cambridge University Press.
- Gu, P. Y. (2018). Validation of an online questionnaire of vocabulary learning strategies for ESL learners. *Studies in Second Language Learning and Teaching*, 8(2), 325–350.
- Guetterman, T. C., & Fetters, M. D. (2018). Two methodological approaches to the integration of mixed methods and case study designs. *American Behavioral Scientist*, 62(7), 900–918.
- Johns, R. (2005). One size doesn't fit all: Selecting response scales for attitude items. *Journal of Elections, Public Opinion & Parties*, 15(2), 237–264.
- Johnson, R. B., & Onwuegbuzie, A. J. (2019). Mixed methods research: A paradigm whose time has come. *Educational Researcher*, 33(7), 14–26.
- Joshi, A., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396–403.
- Lee, J. W., Wolters, A., & Grace Kim, Y. S. (2023). The relations of morphological awareness with language and literacy skills vary depending on orthographic depth and nature of morphological awareness. *Review of Educational Research*, 93(4), 528–558.
- Lei, Y., & Reynolds, B. L. (2022). Learning English vocabulary from word cards: A research synthesis. *Frontiers in Psychology*, 13, 984211.
- Montero-Saiz, M. C. (2025). Gender-based differences in EFL learners' language learning strategies and productive vocabulary. *System*, 123, 103276.
- Mustafa, F. (2019). English vocabulary size of Indonesian high school graduates: Curriculum expectation and reality. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 3(2), 357–371.
- Nation, P. (2007). The four strands. *International Journal of Innovation in Language Learning and Teaching*, 1(1), 2–13.
- Nur, R. M., & Jusoh, Z. (2022). Vocabulary learning strategies of Indonesian EFL learners in Malaysia: A focus on gender. *International Journal of English and Applied Linguistics*, 2(3), 431–445.
- Oxford, R. (1990). Strategy inventory for language learners (SILL). In R. Oxford (Ed.) *Language strategies: What every teacher should know*. Berkshire, England: Newbury House.
- Oxford, R. (2020). *Teaching and researching language learning strategies*. London: Routledge.
- Pawlak, M., & Kiermasz, Z. (2018). The use of language learning strategies in a second and third language: The case of foreign language majors. *Studies in Second Language Learning and Teaching*, 8(2), 427–443.
- Ridwan, S., & Jusoh, Z. (2022). Vocabulary learning strategies of Indonesian EFL learners in Malaysia: A focus on gender. *Arab World English Journal*, 13(4), 431–445.
- Shorten, A., & Smith, J. (2017). Mixed methods research: Expanding the evidence base. *Evidence-Based Nursing*, 20(3), 74–75.

- Teng, M. F. (2023). Exploring self-regulated vocabulary learning strategies, proficiency, working memory, and vocabulary learning through word-focused exercises. *The Language Learning Journal*, 51(5), 567–580.
- Teng, M. F., Mizumoto, A., & Takeuchi, O. (2024). Understanding growth mindset, self-regulated vocabulary learning, and vocabulary knowledge. *System*, 122, 103255.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. UK: Pearson.
- Tong, Y., Hasim, Z., & Abdul Halim, H. (2023). The relationship between L2 vocabulary knowledge and reading proficiency: The moderating effects of vocabulary fluency. *Humanities and Social Sciences Communications*, 10(1), 1-14.
- Webb, S., Uchihara, T., & Yanagisawa, A. (2023). How effective is second language incidental vocabulary learning? A meta-analysis. *Language Teaching*, 56(2), 161–180.
- Yanagisawa, A., & Webb, S. (2021). To what extent does the involvement load hypothesis predict incidental L2 vocabulary learning? A meta-analysis. *Language Learning*, 71(3), 631–675.
- Yanagisawa, A., & Webb, S. (2022). Involvement load hypothesis PLUS: An improved predictive model of incidental vocabulary learning. *Studies in Second Language Acquisition*, 44(5), 1234–1259.
- Zarrati, Z., Zohrabi, M., Abedini, H., & Xodabande, I. (2024). Learning academic vocabulary with digital flashcards: Comparing the outcomes from computers and smartphones. *Social Sciences & Humanities Open*, 9, 100900. <https://doi.org/10.1016/j.ssaho.2024.100900>