

NON-ENGLISH MAJOR UNIVERSITY STUDENTS' PERCEPTIONS OF DIFFICULTIES IN MEMORIZING ENGLISH VOCABULARY

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Abstract. *In the context of increasing global use of English for academic and professional purposes, vocabulary knowledge plays a crucial role in language learning. However, memorizing and retaining English vocabulary remains a major challenge for non-English major university students. This study investigates students' perceptions of difficulties in vocabulary memorization and the factors affecting their retention. A quantitative approach was employed, using a questionnaire administered to 81 undergraduate non-English major students enrolled in General English courses at Can Tho University (CTU), Vietnam. The findings reveal that students commonly struggle with remembering word meanings, pronunciation, spelling, and appropriate usage. Key contributing factors include ineffective learning strategies, limited practice opportunities, and the large volume of vocabulary. The study also highlights students' reliance on basic memorization techniques and their need for more effective learning strategies. Based on these findings, several pedagogical implications are proposed to enhance vocabulary learning and retention among non-English major students.*

Keywords: *EFL; Non-English Major Students; Students' Perceptions Vocabulary Memorization; Vocabulary Learning Difficulties*

1. INTRODUCTION

1.1 Background of the study

In the era of globalization, English has become essential for communication, academic success, and career advancement. For university students, English proficiency is often a graduation requirement and a gateway to academic resources. Among language components, vocabulary plays a crucial role. As Wilkins (1972, p.25) stated, "without grammar very little can be conveyed, without vocabulary nothing can be conveyed." A strong vocabulary base supports both comprehension and communication skills (Nation, 2001; Schmitt, 2010).

However, vocabulary acquisition remains a significant challenge for EFL learners. It involves complex cognitive processes such as encoding, storage, and retrieval. Difficulties arise from the large number of words, complex semantic relationships, and first language interference (Thornbury, 2002). Moreover, knowing a word requires understanding its form, meaning, and use, which increases learning complexity (Nation, 2013).

These challenges are more evident among non-English major students, who often have limited exposure to English and fewer opportunities for authentic practice. Their learning is typically driven by instrumental motivation, leading to rote memorization, which is ineffective for long-term retention (Oxford & Scarcella, 1994). Psychological factors such as anxiety and low confidence may further hinder vocabulary learning (Horwitz et al., 1986).

In Vietnam, similar issues persist. Students face increased vocabulary demands at university, while traditional teaching methods remain common (Vu, 2023). Studies highlight difficulties in memorization due to both objective and subjective factors (Pham & Pham, 2025; Tran, 2025).

Therefore, this study investigates non-English major students' perceptions of difficulties in memorizing English vocabulary, aiming to provide insights for improving vocabulary instruction.

1.2. Research aims

The research study aims to examine the difficulties in memorizing English vocabulary encountered by non-English major students and to investigate their perceptions of these challenges. It also seeks to identify the factors that influence their vocabulary memorization process and the strategies they employ to cope with such difficulties. Through this examination, the study hopes to provide insights that contribute to improving the teaching and learning of English vocabulary for non-English major students in the university context.

1.3. Research Questions

The study was conducted to answer the following questions:

1. What difficulties do non-English major university students perceive in memorizing English vocabulary?
2. What strategies do non-English major university students use to overcome difficulties in memorizing English vocabulary?

1.4. Significance of the Study

This study is expected to contribute both theoretically and practically. Theoretically, it adds to the literature on vocabulary acquisition by providing insights into memorization difficulties faced by non-English major students in Vietnam. Practically, the findings may help English teachers better understand learners' challenges and adjust their teaching methods to improve vocabulary instruction. The study also offers useful implications for curriculum developers in designing more effective vocabulary components in General English courses. In addition, it may raise students' awareness of their own vocabulary learning processes and encourage them to improve their memorization strategies.

1.5. Scope of the Study

This study focuses on non-English major students enrolled in General English courses at a Vietnamese university. It examines their difficulties and perceptions related to memorizing English vocabulary. Other aspects of vocabulary knowledge are not the primary focus, although they may be mentioned when relevant.

2. LITERATURE REVIEW

2.1. Theoretical Framework of Vocabulary Learning

Vocabulary is a central component of language proficiency, enabling comprehension, communication, and the development of other language skills (Nation, 2013). Research in second language acquisition highlights that vocabulary learning is shaped by cognitive, affective, and contextual factors (Schmitt, 2010).

2.1.1. Cognitive Theory of Learning

Cognitive theories emphasize that memorizing vocabulary requires attention, repetition, and meaningful processing. The Depth of Processing Hypothesis (Craik & Lockhart, 1972) suggests that deeper engagement—such as forming associations or using words in context—leads to stronger retention. In addition, Baddeley's (2003) model of working memory highlights the limited capacity of short-term memory and the importance of rehearsal in transferring information to long-term storage.

2.1.2. Krashen's Input Hypothesis

Krashen (1985) proposes that language acquisition occurs through exposure to comprehensible input slightly beyond the learner's current level ($i+1$). In vocabulary learning, this implies that repeated exposure to words in meaningful contexts is essential. However, in

many EFL classrooms, including those in Vietnam, vocabulary is often presented through isolated word lists, which may limit opportunities for deep and contextualized learning.

2.1.3. Oxford's Language Learning Strategy Theory

Oxford (1990, 2017) classifies language learning strategies into memory, cognitive, metacognitive, affective, and social categories. Memory strategies (e.g., grouping, association, and review) are particularly relevant for vocabulary memorization, while metacognitive strategies support planning and self-regulation. This framework helps explain why some learners are more successful in vocabulary learning than others.

2.2. Factors Affecting Vocabulary Learning

Vocabulary knowledge involves multiple dimensions, including form, meaning, and use (Nation, 2013). EFL learners often face challenges due to limited exposure, insufficient strategy use, and interference from their first language (Schmitt, 2010). In Vietnam, these difficulties are often intensified by traditional teaching practices and limited English environments (Vu, 2023).

2.2.1. Cognitive Difficulties

Learners commonly struggle with remembering pronunciation, spelling, meanings, and collocations. The large number of new words can lead to cognitive overload, especially for non-English major students.

2.2.2. Motivational Factors

Motivation plays a key role in vocabulary learning. Many non-English major students are primarily instrumentally motivated, focusing on exams or graduation requirements, which may reduce long-term engagement (Gardner & Lambert, 1972).

2.2.3. Learning Environment

The learning environment significantly affects vocabulary acquisition. Large class sizes, limited interaction, and lack of contextualized practice can hinder retention (Ellis, 2015).

2.2.4. Strategy Use

Effective learners use a range of strategies, including repetition, mnemonics, flashcards, and contextual learning. Combining strategies has been shown to improve retention compared to rote memorization alone (Oxford, 1990; Schmitt, 2010).

2.2.5. Teacher Support and Feedback

Teacher guidance and feedback are essential for helping learners overcome difficulties. Providing clear explanations, examples, and strategy training enhances vocabulary learning (Pham & Pham, 2018).

2.2.6. Time Management and Study Habits

Regular and spaced practice supports long-term retention, whereas irregular study and cramming often lead to rapid forgetting (Nation, 2013).

2.3. Vocabulary Memorization Challenges in EFL Contexts

EFL learners face multiple, interrelated challenges in vocabulary memorization. Linguistic barriers include difficulties with pronunciation, spelling, and interference from the first language (Thornbury, 2002). Cognitive limitations, such as restricted working memory capacity, can make it difficult to retain large amounts of new vocabulary. Psychological factors, including anxiety, low confidence, and negative attitudes, may reduce learners' engagement (Dörnyei, 2005; Horwitz et al., 1986). In addition, many learners rely on ineffective strategies, such as rote

memorization without context, while contextual factors such as limited exposure and exam-oriented learning further constrain vocabulary development (Vu, 2023).

2.4. Sociocultural Influences

Sociocultural factors also shape vocabulary learning. In Vietnam, teacher-centered instruction and examination-oriented practices often encourage memorization rather than meaningful use of language (Tran & Duong, 2017). Cultural norms may also discourage students from actively participating or asking questions, limiting opportunities for deeper processing and practice.

2.5. Learners' Perceptions and Attitudes

Learners' perceptions significantly influence their motivation and learning behaviors. Positive attitudes toward vocabulary learning can enhance persistence and strategy use, while negative perceptions—such as viewing vocabulary learning as difficult or uninteresting—can lead to avoidance (Ajzen, 1991). Self-efficacy is particularly important, as learners who believe in their ability to succeed are more likely to engage actively and persist in learning (Bandura, 1997).

2.6. Learning Strategies and Practices

Vocabulary learning can be enhanced through the use of diverse strategies. Memory strategies include association, imagery, and grouping; cognitive strategies involve repetition and practice; metacognitive strategies focus on planning and monitoring learning; and social-affective strategies involve interaction and emotional regulation. Research suggests that learners who combine these strategies achieve better vocabulary retention and greater autonomy (Oxford, 2017; Nation, 2013).

2.7. Role of Technology in Vocabulary Learning

Technology has expanded opportunities for vocabulary learning. Tools such as Quizlet, Anki, and online dictionaries support spaced repetition, multimodal input, and flexible learning. These tools can enhance motivation and retention; however, overreliance on translation tools and unequal access to technology may limit their effectiveness.

2.8. Vocabulary Learning in the Vietnamese Context

In Vietnamese universities, General English courses aim to develop communicative competence through integrated skills. However, challenges such as large class sizes, exam-oriented learning, limited exposure, and insufficient strategy training persist. These factors contribute to ongoing vocabulary memorization difficulties among non-English major students (Vu, 2023; Pham & Pham, 2025; Tran, 2025).

2.9. Empirical Studies on Vocabulary Learning Difficulties

Previous research has identified common vocabulary learning challenges, including poor retention, limited practice opportunities, and ineffective strategy use (Schmitt, 2010; Nation, 2013). Studies in Vietnam further highlight both objective factors (e.g., phonological differences, vocabulary load) and subjective factors (e.g., lack of motivation and strategies) affecting learners (Pham & Pham, 2025; Tran, 2025). While these studies provide valuable insights, they often focus on general difficulties rather than learners' perceptions, indicating a need for further investigation.

2.10. Summary

In summary, vocabulary learning is influenced by a complex interaction of cognitive, motivational, sociocultural, and contextual factors. Although previous studies have identified key challenges, there remains a gap in understanding learners' perceptions, particularly among

non-English major students in Vietnamese universities. This study aims to address this gap by exploring students' perspectives on vocabulary memorization difficulties.

3. RESEARCH METHODOLOGY

3.1 Research Questions

The study was carried out with two main objectives corresponding to two following research questions. The study was conducted to answer the following questions:

1. What difficulties do non-English major university students perceive in memorizing English vocabulary?
2. What strategies do non-English major university students use to overcome difficulties in memorizing English vocabulary?

3.2 Research design

This study adopted a quantitative research design with a survey approach. The primary instrument was a questionnaire developed to gather data regarding non-English major students' perceptions of difficulties in memorizing English vocabulary, their use of vocabulary learning strategies, and their views on environmental and psychological factors affecting vocabulary retention.

The questionnaire items were constructed based on the theoretical foundations and empirical studies reviewed in Section Two. These items aimed to explore five key dimensions of vocabulary memorization difficulties: (1) vocabulary characteristics, (2) learning methods and strategies, (3) psychological and motivational difficulties, (4) learning environment and external support, and (5) perceptions of outcomes and improvement. The participants selected for the study were undergraduate non-English major students enrolled in non-English courses at Can Tho University. These students were chosen because they had completed several semesters of English instruction and possessed sufficient learning experience to reflect meaningfully on vocabulary memorization challenges.

3.3 Participants

The participants in this study consisted of 81 undergraduate non-English major students taking General English courses at Can Tho University who voluntarily completed the questionnaire. All participants were assured of confidentiality and provided sincere and complete responses. The demographic characteristics of the participants are summarized in Table 3.1.

Table 3.1 Demographic Characteristics of Participants

Characteristic	Category	Frequency	Percentage
Cohort	Cohort 48 (K48)	23	28.4%
	Cohort 49 (K49)	26	32.1%
	Cohort 50 (K50)	27	33.3%
	Cohort 51 (K51)	5	6.2%
Highest English Certificate	None	62	76.5%
	A1	4	4.9%
	A2	4	4.9%
	B1	5	6.2%
	B2	2	2.5%
	Other (IELTS, TOEIC)	4	4.9%

As shown in Table 3.1, the majority of participants were from cohorts C48, C49, and C50 (28.4%, 32.1%, and 33.3% respectively). Notably, 76.5% of participants reported having no formal English certificate, indicating that most students were at basic to elementary proficiency levels.

3.4 Research instruments

3.4.1. Questionnaire

The primary purpose of the questionnaire was to investigate non-English major students' perceptions of difficulties in memorizing English vocabulary and to examine their use of vocabulary learning strategies. Through this instrument, the researcher sought to obtain an overall picture of the difficulties students encountered during vocabulary learning and the approaches they used to improve retention.

The questionnaire consisted of two main sections and was written in bilingual format (English–Vietnamese) using a five-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Section 1 collected demographic information including gender, major, faculty/college, student cohort, years of learning English, and highest English certificate obtained.

Section 2 contained 25 Likert-scale items measuring five dimensions related to vocabulary memorization, with five items per cluster:

Table 3.2 Dimensions related to vocabulary memorization

Cluster	Description	Number of items
C1	Vocabulary characteristics (word length, multiple meanings, synonyms, collocations)	5
C2	Learning methods and strategies (effectiveness of current methods, use of memory techniques)	5
C3	Psychological and motivational difficulties (anxiety, confidence, fear of mistakes)	5
C4	Learning environment and external support (practice opportunities, time constraints, course guidance)	5
C5	Perceptions of outcomes and improvement (self-assessment, willingness to change)	5

In addition, two open-ended questions were included at the end of Section 2 to allow participants to express additional opinions regarding their vocabulary memorization difficulties and suggestions for improvement. The questionnaire was originally developed in English, then translated into Vietnamese to ensure comprehensibility for all participants. The Vietnamese version was verified by the supervisor before administration.

3.4.2. Pilot Interview

A pilot study was conducted before administering the official questionnaire to determine whether the items were appropriate for students' proficiency levels and whether the wording was clear and understandable. For the pilot study, 10 students were randomly selected from a General English class at Can Tho University. These participants had similar English proficiency levels to those expected in the main study, making them suitable for pilot testing. On the day of piloting, the researcher visited one intact class and distributed the questionnaires directly. To ensure that the students fully understood the aims of the study, the researcher provided a complete explanation of the objective statement, item descriptions, and instructions in both English and Vietnamese. Participants were asked to complete the questionnaire item by item and to provide feedback on any confusing or unclear items.

Feedback from the pilot study helped refine the wording and clarity of several items before administering the official questionnaire. No major changes were required, as the items were found to be clear and appropriate for the target participants.

3.5 Data Collection Procedures

The official questionnaire was distributed during the second semester of the academic year 2025–2026 at Can Tho University. With approval from the classroom teacher, the researcher visited each class to invite students' participation. Students completed the questionnaire either after class time or via an online Google Form link, depending on their preference and availability. As in the pilot phase, the researcher explained the purposes of the study and provided bilingual instructions before students filled out the questionnaire. On average, participants required approximately 10–15 minutes to complete the survey. Before submission, they were asked to review their answers to ensure no items were omitted. A total of 81 questionnaires were collected and all were deemed valid for analysis, with no missing responses for demographic variables and only minimal missing values (77–80 valid responses) among the cluster items.

3.6 Data Analysis

3.6.1. Quantitative Data Analysis

Quantitative data were collected from the questionnaire and analyzed using the Statistical Package for the Social Sciences (SPSS). The analysis proceeded in the following steps:

Step 1: Reliability analysis – Cronbach's Alpha was calculated for each of the five clusters and for all items combined to ensure internal consistency. Reliability coefficients above 0.70 were considered acceptable.

Step 2: Frequency analysis – Frequency procedures were run to identify the distribution of students' demographic information, including gender, cohort, years of learning English, and highest English certificate obtained.

Step 3: Descriptive statistics – Means and standard deviations were computed for each individual item and for each cluster to examine students' perceptions of vocabulary memorization difficulties and their use of strategies.

Step 4: One-sample t-test – A one-sample t-test was conducted to determine whether the mean scores for each cluster were significantly different from the neutral value of 3.00.

Step 5: Independent-samples t-test – An independent-samples t-test was performed to compare male and female students' perceptions of vocabulary memorization difficulties.

Step 6: One-way ANOVA – A one-way ANOVA was conducted to examine whether students from different cohorts differed in their perceptions of vocabulary memorization difficulties.

Step 7: Pearson correlation – Bivariate correlation analysis was employed to measure the strength of the linear relationships among the five clusters.

3.6.2. Qualitative data analysis

In addition to the quantitative data, the questionnaire included two open-ended questions that allowed participants to provide additional comments about their vocabulary memorization difficulties and suggestions for improvement. These qualitative responses were analyzed using thematic analysis, following the procedures suggested by Braun and Clarke (2006). The analysis proceeded in two stages.

In the first stage, the researcher categorized the responses according to recurring patterns such as vocabulary characteristics, ineffective learning methods, psychological barriers, environmental constraints, and suggestions for improvement.

In the second stage, the categorized responses were analyzed to interpret students' perspectives and to understand the meanings and implications behind their experiences. These qualitative findings complemented the quantitative results and helped explain how and why students faced particular vocabulary memorization difficulties.

4. FINDINGS AND DISCUSSION

4.1 Findings from Quantitative Data

The quantitative phase aimed to examine students' perceived difficulties in vocabulary

memorization across five dimensions: Linguistic Challenges (LC), Cognitive Challenges (CC), Affective Challenges (AC), Material Challenges (MC), and Perceptions of Outcomes (PO). A total of 81 students completed the questionnaire. After data screening, all 81 responses were retained for analysis.

4.1.1. Descriptive Statistics of Participants

The participant pool consisted of students from various academic cohorts. As shown in the frequency analysis, the majority of students were from Cohort 3 (33.3%) and Cohort 2 (32.1%), indicating that most participants were in their second or third year of study. In terms of English learning background, students reported an average of 9.18 years of English study (SD = 4.139), ranging from 1 to 18 years. Regarding English certificates, the majority (76.5%) had no formal certification, while the remainder held various qualifications from A1 to IELTS/TOEIC.

4.1.2. Reliability of the Questionnaire

Prior to the main analysis, a reliability test was conducted for each cluster of the questionnaire to ensure internal consistency. The Cronbach's Alpha coefficients for all five clusters exceeded the acceptable threshold of 0.7.

Table 4.1 Reliability Statistics of the Questionnaire Clusters

Cluster	Cronbach's Alpha	N of Items
Linguistic Challenges (LC)	.807	5
Cognitive Challenges (CC)	.818	5
Affective Challenges (AC)	.896	5
Material Challenges (MC)	.808	5
Perceptions of Outcomes (PO)	.857	5
Overall Scale	.952	25

*Note: The overall reliability for all 21 items (excluding open-ended questions) was exceptionally high ($\alpha = .952$), indicating excellent internal consistency. *

As presented in Table 4.1, the reliability coefficients for individual clusters ranged from .807 to .896, demonstrating that the items reliably measured each dimension of vocabulary memorization difficulties. The high overall Cronbach's Alpha ($\alpha = .952$) confirms that the questionnaire was highly suitable for statistical analysis.

4.1.3. Overall Level of Perceived Difficulties

Descriptive statistics were computed to determine the extent of students' perceived difficulties in memorizing English vocabulary. The mean scores for each cluster were calculated based on a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree).

Table 4.2 Descriptive Statistics of Perceived Difficulties

Dimension	N	Minimum	Maximum	Mean	Std. Deviation
Linguistic Challenges (LC)	79	1.00	5.00	3.6304	.88642
Cognitive Challenges (CC)	80	1.00	5.00	3.5525	.82569
Affective Challenges (AC)	77	1.00	5.00	3.4442	.98174
Material Challenges (MC)	79	1.00	5.00	3.5215	.81613
Perceptions of Outcomes (PO)	80	1.00	5.00	3.6000	.90119

The descriptive results in Table 4.2 reveal several important patterns.

First, Linguistic Challenges received the highest mean score ($M = 3.63$). This indicates that students found the inherent characteristics of English vocabulary—such as similar spellings, multiple meanings, and collocations—to be the most significant barrier to memorization.

Second, Perceptions of Outcomes ($M = 3.60$) and *Cognitive Challenges* ($M = 3.55$) also recorded relatively high means. This suggests that students were aware of their weak memorization ability and recognized that their current learning methods (e.g., rote memorization, lack of systematic review) were contributing to their difficulties.

Third, Affective Challenges ($M = 3.44$), while slightly lower than other dimensions, still exceeded the neutral point of 3.00. This confirms that psychological factors such as stress, lack of motivation, and low confidence also play a meaningful role in hindering vocabulary retention.

Finally, Material Challenges ($M = 3.52$) reflect the influence of external factors, including limited opportunities to use English outside class and insufficient guidance from courses on effective vocabulary learning strategies.

Overall, all mean scores were above 3.00, demonstrating that students generally perceived vocabulary memorization as a challenging aspect of English learning across multiple dimensions.

4.1.4. Hypothesis Testing (One-Sample t-test)

A one-sample t-test was conducted to determine whether the mean scores for each dimension were significantly higher than the neutral value of 3.00.

Table 4.3 Results of One-Sample t-test (Test Value = 3.00)

Dimension	t	df	Sig. (2-tailed)	Mean Difference
Linguistic Challenges	9.722	78	.000	.64211
Cognitive Challenges	11.214	79	.000	.73402
Affective Challenges	7.295	76	.000	.50103
Material Challenges	11.315	78	.000	.61443
Perceptions of Outcomes	15.939	79	.000	.83093

As shown in Table 4.3, all p-values were less than .001, indicating that the mean scores for all five dimensions were statistically and significantly higher than the neutral value of 3.00. The largest mean difference was observed for **Perceptions of Outcomes** (Mean Diff = .83093), followed by **Cognitive Challenges** (Mean Diff = .73402). These findings confirm that students not only experience difficulties but also strongly recognize that their vocabulary memorization ability is weak and negatively affects their overall English performance.

4.1.5. Exploratory Factor Analysis (EFA)

To examine the underlying structure of the questionnaire, an Exploratory Factor Analysis (EFA) was performed using Principal Component Analysis.

Table 4.4 KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.869	
Bartlett's Test of Sphericity	Approx. Chi-Square	312.269
	df	10
	Sig.	.000

The KMO value of .869, as presented in Table 4.4, indicates that the data were highly suitable for factor analysis. Bartlett's Test of Sphericity was also significant ($p < .001$), confirming that the variables were sufficiently correlated.

Table 4.5 Total Variance Explained

Component	Initial Eigenvalues	Extraction Sums of Squared Loadings				
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	4.008	80.154	80.154	4.008	80.154	80.154
2	.366	7.329	87.483			
3	.324	6.478	93.961			
4	.179	3.575	97.536			
5	.123	2.464	100.000			

The analysis extracted a single component with an eigenvalue greater than 1, which explained 80.154% of the total variance, as displayed in **Table 4.5**. This suggests that although the questionnaire was designed to measure five distinct dimensions, these dimensions are highly interrelated and collectively represent students' overall perception of vocabulary memorization difficulties.

Table 4.6 Component Matrix^a

Variable	Component 1
Cognitive Challenges	.935
Affective Challenges	.925
Material Challenges	.888
Linguistic Challenges	.864
Perceptions of Outcomes	.862
<i>Extraction Method: Principal Component Analysis. a. 1 components extracted.</i>	

Table 4.6 shows that all five dimensions loaded strongly onto a single component, with factor loadings ranging from .862 to .935. This confirms that linguistic, cognitive, affective, material, and outcome-related factors are not isolated but rather form an integrated construct of vocabulary memorization difficulty.

4.1.6. Comparison of Difficulties by Student Cohort

A one-way ANOVA was conducted to examine whether students from different cohorts differed in their perceptions of vocabulary memorization difficulties.

Table 4.7 One-Way ANOVA of Vocabulary Difficulties by Student Cohort

Dimension	F	Sig.
Linguistic Challenges	.338	.798
Cognitive Challenges	1.017	.390
Affective Challenges	1.016	.391
Material Challenges	.924	.433
Perceptions of Outcomes	.822	.486

The ANOVA results in Table 4.7 indicate no statistically significant differences among cohorts in any dimension ($p > .05$). This suggests that students' perceptions of vocabulary memorization difficulties were relatively consistent across different academic years. This finding implies that vocabulary challenges are persistent and do not diminish automatically as students progress through their university studies without targeted interventions.

4.1.7. Correlation Analysis

A correlation analysis was performed to examine the relationships among the five dimensions.

Table 4.8 Correlation Matrix of Vocabulary Difficulty Dimensions

Dimension	LC	CC	AC	MC	PO
Linguistic Challenges (LC)	1	.764**	.735**	.666**	.685**
Cognitive Challenges (CC)	.764**	1	.816**	.824**	.690**
Affective Challenges (AC)	.735**	.816**	1	.799**	.770**
Material Challenges (MC)	.666**	.824**	.799**	1	.683**
Perceptions of Outcomes (PO)	.685**	.690**	.770**	.683**	1
Correlation is significant at the 0.01 level (2-tailed).					

As presented in Table 4.8, all dimensions were positively and significantly correlated with each other at the $p < .01$ level. The strongest correlations were observed between Cognitive Challenges and Affective Challenges ($r = .816$), and between Cognitive Challenges and Material Challenges ($r = .824$). These high correlations indicate that students who struggle with learning methods also tend to experience greater psychological stress and perceive their learning environment as less supportive. Conversely, students who employ better cognitive strategies are more likely to feel confident and find external resources helpful.

4.2 Further Questions (Open-Ended)

Beyond the quantitative findings, the two open-ended questions in the questionnaire provided deeper insights into the students' specific difficulties and the strategies they employ to cope. The qualitative responses were analyzed using thematic analysis to identify recurring patterns, which directly address the second research question regarding coping strategies.

4.2.1 Perceived Main Reasons for Memorization Difficulties

When asked about the main reasons for their vocabulary memorization difficulties, students' responses converged on three primary themes: ineffective learning methods, lack of contextualized practice, and negative psychological states.

First, consistent with the high mean score for Cognitive Challenges ($M = 3.55$, $SD = 0.825$), many students explicitly acknowledged the inadequacy of their learning methods. A common sentiment was the reliance on rote memorization and short-term cramming. For instance, one student stated, *"I only learn words by repeating them many times right before a test, but I forget them immediately after."* Another student noted, *"I write words down many times, but that doesn't help me remember them for long."* These responses validate the quantitative finding (Table 4.2) that students' primary methods are ineffective for long-term retention.

Second, the lack of opportunities to apply vocabulary in meaningful contexts was frequently cited. This aligns with the high mean for Material Challenges ($M = 3.52$, $SD = 0.816$). Several students expressed that they *"have no chance to use English outside the classroom"* or that they *"only learn words from the textbook, not from real-life situations."* One student noted, *"Even if I learn a new word, I don't know how to use it in a real conversation."* This reveals a critical gap between receptive knowledge (recognition) and productive use (application).

Third, echoing the Affective Challenges dimension ($M = 3.44$, $SD = 0.982$), psychological barriers such as anxiety, low confidence, and demotivation were prominent. Students reported

feeling "overwhelmed by the number of new words" and "easily bored because vocabulary learning is repetitive." One student commented, "I feel stressed because I try hard but still cannot remember, so I lose motivation." This sentiment reinforces the strong correlation found between Cognitive and Affective Challenges ($r = .816$, $p < .01$), indicating that ineffective strategies and negative emotions are deeply intertwined.

4.2.2 Students' Coping Strategies to Overcome Difficulties

The second open-ended question asked students to suggest methods to improve vocabulary memorization. Their responses revealed a range of strategies, which can be categorized into technology-assisted learning, active usage strategies, and social learning. Technology-Assisted Learning: A majority of students advocated for the use of digital tools. The most frequently mentioned strategies were:

Flashcard applications: Students recommended using apps like "MochiMochi" or "Quizlet" because they "use spaced repetition to remind me of words before I forget them."

Multimedia resources: Several students suggested "watching English movies with subtitles," "listening to English songs," or "using learning apps like Duolingo" to make learning more engaging.

Active Usage Strategies: Recognizing the limitation of passive review, students proposed actively using new words.

Sentence making: One student recommended, "After learning a word, I try to make my own sentence with it. It helps me remember better than just reading the definition."

Regular review: Students emphasized the need for a systematic schedule, such as "reviewing learned words after one day, then three days, then one week."

Social and Contextual Learning: Some students highlighted the role of social interaction.

Peer practice: Suggestions included "practicing speaking with friends using new words" and "creating a group to quiz each other."

Labeling: A practical strategy mentioned was "sticking labels on objects around the house with their English names."

In summary, the qualitative findings corroborate the quantitative results. Students are not only aware of their difficulties (Linguistic, Cognitive, Affective, and Material) but also possess implicit knowledge of potentially effective coping strategies, such as spaced repetition systems (SRS), contextual learning, and social practice. However, the gap between knowing these strategies and systematically applying them remains a key challenge. This suggests that pedagogical interventions should focus on explicitly teaching and scaffolding the use of these self-reported strategies within the formal curriculum.

4.3 Discussion of Findings

The quantitative findings provide several important insights into non-English major students' difficulties in memorizing English vocabulary.

Firstly, the high mean score for **Linguistic Challenges** ($M = 3.63$) confirms that the intrinsic complexity of English vocabulary—including words with similar spelling or pronunciation, multiple meanings, and collocations—poses a significant barrier. This finding aligns with previous research indicating that L1-L2 linguistic differences often create confusion and hinder accurate word retrieval (Thornbury, 2002; Nation, 2001). For Vietnamese learners, the absence of certain phonetic and semantic distinctions in their native language may exacerbate these difficulties.

Secondly, the high mean for **Perceptions of Outcomes** ($M = 3.60$) and the largest mean difference in the t-test (Mean Diff = .83093) suggest that students are acutely aware of their own limitations. This metacognitive awareness is both a challenge and an opportunity. While it may lead to frustration and low self-efficacy, it also indicates that students are ready to accept

interventions and strategy training.

Thirdly, the significant correlations among all dimensions—particularly between cognitive and affective factors ($r = .816$)—demonstrate that vocabulary memorization is a holistic process. Students who lack effective learning strategies (e.g., spaced repetition, contextual guessing) are more likely to experience anxiety and boredom. Conversely, students who feel psychologically supported are more likely to persist in applying cognitive strategies. This finding underscores the need for integrated pedagogical approaches that address both skill development and emotional support.

Fourthly, the absence of cohort differences in the ANOVA results suggests that vocabulary difficulties do not resolve naturally over time. Without explicit instruction in vocabulary learning strategies, students continue to struggle from their first year through their fourth year. This finding has important implications for curriculum design, indicating that vocabulary strategy training should be integrated into English courses at all levels.

Finally, the high reliability of the questionnaire ($\alpha = .952$) and the strong factor loadings confirm that the five dimensions measured are valid and reliable indicators of vocabulary memorization difficulties. This provides confidence that the instrument can be used in future research.

To sum up, the quantitative findings reveal that non-English major students perceive vocabulary memorization as a multidimensional challenge involving linguistic complexity, ineffective learning methods, psychological barriers, and environmental constraints. The strong interconnections among these dimensions suggest that effective interventions must address multiple factors simultaneously rather than focusing on any single aspect in isolation.

5. CONCLUSION AND IMPLICATIONS

5.1. Summary of Key Findings

This study identified several key findings regarding vocabulary memorization difficulties among non-English major students. *First*, the results confirmed that these difficulties are multidimensional. Linguistic challenges were the most significant, particularly confusion with similar forms, multiple meanings, and collocations. Cognitive challenges were also prominent, as students relied heavily on ineffective strategies such as rote memorization without systematic review. Affective factors, including anxiety, boredom, and low confidence, further hindered retention, while material challenges reflected limited exposure to English and insufficient strategy instruction.

Second, students demonstrated strong awareness of their difficulties. They perceived their vocabulary ability as weak and believed it negatively affected their overall English performance. Correlation analysis revealed that cognitive and linguistic difficulties were closely linked to affective factors such as frustration.

Finally, no significant differences were found across student cohorts, indicating that these difficulties persist throughout university without effective instructional intervention.

5.2. Limitations of the Study

Several limitations should be considered. *First*, the study was conducted at a single university with a relatively small sample, which may limit the generalizability of the findings. Future research should include larger and more diverse samples across multiple institutions. *Secondly*, the study relied solely on self-reported questionnaire data. Although reliability was high, such data may be influenced by bias, including inaccurate self-assessment or social desirability. The absence of objective vocabulary tests limits the ability to verify students' actual proficiency. *Thirdly*, the study did not include qualitative methods such as interviews or observations, which could provide deeper insights into learners' experiences and strategy use. What's more, teacher perspectives were not examined, and the cross-sectional design captured only a single point in

time. Finally, the study focused on general vocabulary rather than specific types, which may vary in difficulty.

5.3. Recommendations for Future Research

Future research should adopt mixed-methods approaches that combine quantitative data with qualitative methods such as interviews or classroom observations. This would provide deeper insights into why students experience difficulties and how they approach vocabulary learning.

Longitudinal studies are also recommended to examine how vocabulary learning strategies and difficulties develop over time. Tracking students across different academic years could reveal whether instructional interventions lead to sustained improvement. Experimental studies should be conducted to evaluate the effectiveness of specific strategies, such as spaced repetition, mnemonic techniques, contextual learning, or digital tools. Comparing different approaches would provide evidence-based recommendations for teaching practice.

Finally, future research should investigate specific types of vocabulary, such as academic versus general words or concrete versus abstract terms, to better understand how different lexical features influence memorization and learning outcomes.

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