

BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC QUẢN LÝ VÀ CÔNG NGHỆ HẢI PHÒNG



KHÓA LUẬN TỐT NGHIỆP

NGÀNH : NGÔN NGỮ ANH

Sinh viên : Trần Thị Thảo

HẢI PHÒNG – 2025

BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC QUẢN LÝ VÀ CÔNG NGHỆ HẢI PHÒNG

**A STUDY ON THE EFFECTIVENESS OF
IMPROVING ENGLISH VOCABULARY THROUGH
THE USING ONLINE APPS AMONG THE FIRST-
YEAR NON-ENGLISH MAJORS AT HPU**

KHÓA LUẬN TỐT NGHIỆP ĐẠI HỌC HỆ CHÍNH QUY

NGÀNH: NGÔN NGỮ ANH

Sinh viên : Trần Thị Thảo

Giảng viên hướng dẫn: Th.s Nguyễn Thị Thu Huyền

HẢI PHÒNG – 2025

BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC QUẢN LÝ VÀ CÔNG NGHỆ HẢI PHÒNG

NHIỆM VỤ ĐỀ TÀI TỐT NGHIỆP

Sinh viên: Trần Thị Thảo

Mã SV: 2112751018

Lớp : NA2501A

Ngành : Ngôn ngữ Anh

Tên đề tài: A study on the effectiveness of improving English vocabulary through the using online apps among the first-year non-English majors at HPU.

NHIỆM VỤ ĐỀ TÀI

1. Nội dung và các yêu cầu cần giải quyết trong nhiệm vụ đề tài tốt nghiệp

a. Nghiên cứu về:

- Thực trạng của sinh viên không chuyên ngữ trong việc học từ vựng Tiếng Anh
- Vai trò của công nghệ và các ứng dụng trực tuyến trong việc học từ vựng, từ đó đề xuất các giải pháp ứng dụng các phần mềm trực tuyến nhằm hỗ trợ việc học đạt hiệu quả hơn cho sinh viên.

b. Khảo sát thực trạng:

- Đánh giá hiện trạng việc học từ vựng tiếng Anh của sinh viên năm nhất không chuyên Anh tại HPU.
- Thu thập và phân tích dữ liệu từ bảng câu hỏi khảo sát.

c. Đánh giá hiệu quả:

- So sánh kết quả trước và sau khi áp dụng để xác định mức độ hiệu quả.
- Phân tích số liệu thống kê để đưa ra kết luận.

d. Đề xuất giải pháp và kiến nghị:

- Đề xuất và áp dụng một ứng dụng học từ vựng trực tuyến phù hợp (ví dụ: Quizlet).
- Dựa trên kết quả nghiên cứu để đưa ra các khuyến nghị nhằm cải thiện việc học từ vựng tiếng Anh.

2. Các tài liệu, số liệu cần thiết

a. Tài liệu lý thuyết về:

- Từ vựng và chiến lược học từ vựng (Vocabulary Learning Strategies - VLS). Ví dụ: Nation(2001), Oxford(1990), Schmitt(2000).
- Lý thuyết về học ngôn ngữ qua công nghệ. Ví dụ: Krashen (1982), Mayer (2001), Chapelle (2001).
- Nghiên cứu trước về Mobile-Assisted Language Learning (MALL)

b. Nguồn tham khảo học thuật:

- Các sách, bài báo khoa học trong phần **References** như:
 - Learning Vocabulary in Another Language – *Paul Nation*.
 - Principles and Practice in Second Language Acquisition – *Stephen Krashen*.
 - Computer Applications in SLA – *Chapelle (2001)*.
- c. Các số liệu cần thiết:
 - Dữ liệu khảo sát định lượng:
 - Phiếu khảo sát từ 50 sinh viên năm nhất không chuyên Anh tại HPU.
 - Nội dung khảo sát: thói quen học từ vựng, ứng dụng đã dùng, đánh giá hiệu quả, kỹ năng cải thiện, khó khăn gặp phải.
 - Số liệu phân tích:
 - Bảng thống kê về mức độ sử dụng ứng dụng (ví dụ: 75% học qua apps, 40% dùng hàng ngày...).
 - Bảng so sánh hiệu quả giữa phương pháp truyền thống và học qua app.
 - Bảng thể hiện kỹ năng được cải thiện sau khi dùng ứng dụng.

3. Địa điểm thực tập tốt nghiệp

Công ty Trách Nhiệm Hữu Hạn Dịch vụ và Giải Trí K&H.

CÁN BỘ HƯỚNG DẪN ĐỀ TÀI TỐT NGHIỆP

Họ và tên : Nguyễn Thị Thu Huyền

Học hàm, học vị : Thạc Sĩ

Cơ quan công tác : Trường Đại học Quản lý và Công nghệ Hải Phòng

Nội dung hướng dẫn: A study on the effectiveness of improving English vocabulary through the using online apps among the first-year non-English majors at HPU.

Đề tài tốt nghiệp được giao ngày 17 tháng 02 năm 2025

Yêu cầu phải hoàn thành xong trước ngày 10 tháng 05 năm 2025

Đã nhận nhiệm vụ ĐTTN

Đã giao nhiệm vụ ĐTTN

Sinh viên

Giảng viên hướng dẫn

Hải Phòng, ngày tháng năm 2025

XÁC NHẬN CỦA KHOA

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM

Độc lập - Tự do - Hạnh phúc

PHIẾU NHẬN XÉT CỦA GIẢNG VIÊN HƯỚNG DẪN TỐT NGHIỆP

Họ và tên giảng viên: Nguyễn Thị Thu Huyền
Đơn vị công tác: Đại học Quản lý và công nghệ Hải Phòng
Họ và tên sinh viên: Trần Thị Thảo
Chuyên ngành: Ngôn ngữ Anh
Đề tài tốt nghiệp: A study on the effectiveness of improving English vocabulary through the using online apps among the first-year non-English majors at HPU.
Nội dung hướng dẫn:

1. Tinh thần thái độ của sinh viên trong quá trình làm đề tài tốt nghiệp

.....
.....

2. Đánh giá chất lượng của đồ án/khóa luận (so với nội dung yêu cầu đã đề ra trong nhiệm vụ Đ.T. T.N trên các mặt lý luận, thực tiễn, tính toán số liệu...)

.....
.....
.....

3. Ý kiến của giảng viên hướng dẫn tốt nghiệp

Được bảo vệ ☐ Không được bảo vệ ☐ Điểm hướng dẫn ☐

Hải Phòng, ngày ... tháng ... năm

Giảng viên hướng dẫn

ACKNOWLEDGEMENT

First and foremost, I would like to register my profound gratitude to Mrs. Nguyen Thi Thu Huyen, my supervisor, for her invaluable instructions, expertise and encouragement.

I would like to express my appreciation to the students as well as lecturers at Hai Phong University of Technology and Management whose participations and opinions are the valuable materials for my research.

I would also like to give my special thanks to my classmates and my friends whose warm support and enthusiasm have contributed greatly to the development of the research.

Lastly, I am greatly to my family for their kindly encouragement endless support during the research's finalization.

Hai Phong, 2025

ABSTRACT

This thesis investigates the effectiveness of online vocabulary-learning applications in improving English vocabulary acquisition among first-year non-English major students at Hai Phong University (HPU). In the context of increasing digitalization in education, mobile-assisted vocabulary learning tools such as Quizlet, Duolingo, Memrise, and Anki have gained popularity for their accessibility, interactivity, and learner-centered features.

The study adopts a mixed-method approach, combining theoretical analysis with a quantitative survey conducted among 50 first-year students at HPU. The data reveal that the majority of students perceive these applications as beneficial for vocabulary retention, learner motivation, and daily language engagement. Key factors contributing to the effectiveness of these tools include gamification, personalized learning paths, spaced repetition systems, and audio-visual integration.

However, challenges such as limited access to free versions, lack of direct teacher's guidance, and difficulties in maintaining learning habits were also noted. Based on the findings, the thesis proposes several recommendations for improving the digital learning experience, including curriculum integration, app design enhancement, and digital literacy support.

The results of this research highlight the significant potential of vocabulary-learning apps as complementary tools to traditional instruction. By understanding student perceptions and learning behaviors, educators and developers can work together to optimize digital vocabulary learning environments for greater educational impact.

DECLARATION

I certify that the work “A study on the effectiveness of improving English vocabulary through the using online apps among the first-year non-English majors at HPU” presented in this study report has been performed and interpreted solely by myself. I confirm that this work is submitted in partial fulfillment of the requirement of the graduate thesis and has not been submitted elsewhere in any other form.

Tran Thi Thao

LIST OF ABBREVIATION

Abbreviation	Full term
VLS	Vocabulary Learning Strategies
MALL	Mobile- Assisted Language Learning
L2	Second Language
SLA	Second Language Acquisition
EFL	English as a Foreign Language
ICT	Information and Communication Techlonogy
LLS	Language Learning Strategies
L1	First Language(Mother Tongue)

LIST OF TABLES

Table 1	Students' Frequency of Using Vocabulary-Learning Applications
Table 2	Students' Most Frequently Used Applications
Table 3	Reasons Why Students Use Vocabulary Apps
Table 4	Vocabulary Learning Methods Commonly Used by Students
Table 5	Student Preferences for App Features
Table 6	Time Spent Using Vocabulary Applications Weekly
Table 7	Students' Perceived Improvement in Vocabulary Retention
Table 8	Comparison with Traditional Vocabulary Learning Methods
Table 9	Preferred Features in Vocabulary Learning Apps

TABLE OF CONTENTS

ACKNOWLEDGEMENT	A
ABSTRACT	B
DECLARATION	C
LIST OF ABBREVIATION	D
LIST OF TABLES	E
PART ONE: INTRODUCTION	1
I.Rationale	1
II.Aim of the study	2
III.Methods of the study	2
IV.Scope of the study	2
PART TWO: DEVELOPMENT	3
CHAPTER I: THEORETICAL BACKGROUND	3
I.1. Literature review in brief	3
I.2.Vocabulary and vocabulary learning strategies	4
I.2.1.Knowing a word.....	4
I.2.2.Vocabulary learning strategies (VLS)	5
I.2.2.1. The definitions of vocabulary learning strategies.....	5
I.2.2.2.Classifications of vocabulary learning strategies	5
I.2.2.2.1.Oxford's VLS classification	5
I.2.2.2.2.O' Malley & Chamot's VLS classification	6
I.2.2.2.3.Gu and Johnson's VLS classification	6
I.2.2.3.The role of technology in language learning	7
I.2.2.3.1.The evolution of digital learning tools.....	7
I.2.2.3.2.Benefits and challenges of using technology for language learning	9
I.2.2.4.Online Applications for Vocabulary Improvement.....	9
CHAPTER II: METHODOLOGY	13
II.1.Survey research.....	13
II.2.The participants	13
II.3.Data collection and analysis	14
II.3.1.Student's background information	14
II.3.2.Student' attitudes of learning vocabulary.....	15
II.3.3.Students' habit of learning English vocabulary	16
II.3.4.The effectiveness of vocabulary learning applications	18

1.Effectiveness of Vocabulary Learning Apps	18
2.Skills Improved by Using Vocabulary Learning Apps	19
3.Advantages of Vocabulary Learning Apps	19
CHAPTER III: FINDING AND DISCUSSION	21
III.1.Comparison with Traditional Vocabulary Learning Methods	21
III.2.Effectiveness of Online Applications in Vocabulary Learning	22
III.2.1.Improvements in vocabulary retention	23
III.2.2.Differences in learning outcomes compared to traditional methods	24
III.3.Students' Motivation and Engagement	25
III.3.1.Influence of gamification and interactivity	26
III.3.2.Student attitudes towards app-based learning	27
III.4.Students' Perceptions of Online Applications	29
III.4.1.Survey result on students preference	29
III.4.2.Recommendations for improving digital learning experiences	31
PART THREE: CONCLUSION	34
REFERENCES	36
APPENDIX: Survey Questionnaires	

PART ONE: INTRODUCTION

I. Rationale

In the modern, technology plays a key role in language learning, with online apps offering interactive ways to improve English skills. For non-English majors, strong vocabulary is essential for academic and career success. At HPU, first-year students face challenges due to limited exposure and traditional teaching methods. This study explores whether online vocabulary apps enhance their learning. Understanding their effectiveness can help improve students' language competence.

Vocabulary serves as the foundation for language proficiency, enabling students to comprehend texts, engage in conversations, and express their thoughts effectively. According to Nation (2001), "Vocabulary knowledge is critical because words are the building blocks of language." Without a strong vocabulary base, students struggle with reading comprehension, listening skills, and written communication. Traditional methods of vocabulary learning, such as memorization from textbooks or rote learning, often fail to keep students motivated and may lead to passive learning. In contrast, online applications provide a dynamic, interactive, and personalized approach to vocabulary acquisition. Apps such as Duolingo, Memrise, Anki, and Quizlet incorporate elements of gamification, spaced repetition, and multimedia resources, which can significantly enhance retention and engagement.

Online vocabulary-learning apps leverage technology to create an engaging learning environment. These applications utilize artificial intelligence, spaced repetition systems, flashcards, quizzes, and real-life examples to help students effectively acquire new words. Many of these apps also offer audio pronunciation, sentence-building exercises, and peer interaction, making vocabulary learning

more dynamic. Krashen (1982) emphasizes the importance of comprehensible input in language acquisition, stating that "We acquire language in one way—by understanding messages." With the increasing accessibility of smartphones and the internet, integrating these apps into language learning can provide an efficient and enjoyable alternative to traditional methods.

As technology transforms education, understanding online vocabulary-learning apps is crucial. This study examines their impact on first-year non-English majors at HPU, aiming to bridge traditional and modern learning methods. By assessing their effectiveness, the research seeks to enhance language proficiency and academic success. The findings may promote a more technology-integrated approach, benefiting both students and educators.

II. Aim of the study

The ultimate goal of the study is to help the first-year non-English major students to improve English vocabulary through the using online apps among the first-year non-English majors at HPU. The study aims specifically to:

- 1) Assess how online vocabulary-learning applications impact English vocabulary acquisition among first-year non-English majors at HPU.
- 2) Analyze whether these apps improve students' ability to retain vocabulary over time.
- 3) Highlight the advantages and potential limitations of using technology in language acquisition.
- 4) Support students in optimizing their vocabulary learning strategies for better academic success.

III. Methods of the study

The study was carried out based on material collection and survey questionnaires.

The data was analyzed using descriptive statistics to see the overall patterns of vocabulary learning strategies used by the 50 first-year non-English major students come from Course 28, Bachelor of Business and Bachelor of Engineering at HPU.

Data collected from students' questionnaires were analyzed qualitatively to describe what strategies were used in English vocabulary learning. The information was then displayed in forms of tables.

IV. Scope of the study

The general research area of this study is vocabulary learning by online apps.

The phenomenon is strategies for learning vocabulary made by the first-year students of non-English majors at HPU in the academic year of 2024/2025.

The population involved in the study is one hundred the first-year non-English majors students at HPU.

PART TWO: DEVELOPMENT

CHAPTER I: THEORETICAL BACKGROUND

I.1. Literature review in brief

In recent years, vocabulary learning has drawn significant attention in the field of second language acquisition (SLA), as vocabulary is considered a fundamental component of language proficiency. Nation (2001) emphasizes that vocabulary knowledge is crucial for learners to comprehend texts, engage in spoken communication, and express ideas clearly. A limited vocabulary range can hinder students' ability to perform in all four language skills: listening, speaking, reading, and writing.

Traditionally, vocabulary was learned through repetitive memorization, dictionary use, and textbook exercises. While these methods remain important, they are often criticized for promoting passive learning and lacking learner engagement. Oxford (1990) and Schmitt (2000) suggested that effective vocabulary acquisition depends largely on the strategies employed by learners and the frequency and depth of word exposure.

As technology becomes increasingly integrated into education, mobile-assisted language learning (MALL) has gained momentum. Vocabulary learning apps such as **Duolingo**, **Memrise**, **Quizlet**, and **Anki** have been widely adopted due to their interactive features and accessibility. These tools often include spaced repetition systems, gamification elements, and multimodal inputs (e.g., visual, auditory), all of which are linked to improved retention and learner motivation (Godwin-Jones, 2011; Reinhardt & Sykes, 2012).

According to Krashen's (1982) Input Hypothesis, language acquisition occurs when learners are exposed to comprehensible input in meaningful contexts. Mobile applications support this theory by offering real-life examples, audio

prompts, and sentence-building exercises that promote natural vocabulary development. Furthermore, Stockwell (2010) found that mobile vocabulary tools provide flexibility for self-paced learning, particularly beneficial for students with diverse learning styles and limited classroom exposure.

Despite these advantages, some scholars such as Burston (2014) and Kukulska-Hulme (2009) also noted challenges, including the risk of distraction, superficial learning, and the lack of pedagogical support when learners rely solely on apps without teacher guidance.

In summary, the existing literature supports the view that online vocabulary learning applications offer innovative and promising strategies for vocabulary acquisition. However, their effectiveness depends on how they are integrated into broader learning practices, particularly for learners who may require structure, motivation, and support—such as first-year non-English majors at HPU, the focus of this current study.

I.2. Vocabulary and vocabulary learning strategies

I.2.1. Knowing a word

Knowing and learning a word means knowing a word receptively and productively. Being able to understand a word while listening to a text is known as receptive knowledge on the other hand, being able to use a word in spoken and written form is understood as productive knowledge.

It is widely believed that people learn word receptive first and later achieve productive knowledge (Schmitt 2000). He further proposes the following list of the different kinds of knowledge that a person must master in order to know word:

- The meaning of the word
- The written form of the word
- The spoken form of the word
- The grammatical behavior of the word

- The collocations of the word
- The registers of the word
- The associations of the word
- The frequency of the word

Nation (2001) suggests other aspects that are involved in knowing the word completely: form- spoken written, word parts, meaning-from and meaning, concepts and references, associations, use- grammatical function, collocations and constraints on use.

Based on above aspects of knowing a word, we can say that a word is a complex item and the learner needs more than one exposure to learn and remember

it. The different forms of word knowledge need to be learned gradually over a long period of time. Each exposure to a word is a chance to accumulate the different types of lexical knowledge.

There is no doubt that attention to form and meaning of the unknown lead to a word retention. In some case this may involve memorization of units that will later be analyzed and in other cases may involve learning a rule or pattern that is subsequently practiced and used.

I.2.2. Vocabulary learning strategies (VLS)

I.2.2.1. The definitions of vocabulary learning strategies

Researchers define vocabulary learning strategies just according to the definition of learning strategies. Nation (2001, p.217) states that “vocabulary learning strategies are a part of language learning strategies which in turn are a part of general learning strategies”. Based on O’Malley and Chamot’s (1990)

definition of learning strategies, Schmitt (1997) defined that learning is “the process by which information is obtained, stored, retrieved and used. Therefore, vocabulary learning strategies could be any which affect this broadly defined process” (p.203). Nation (2001), instead of providing a clear-cut definition of vocabulary learning strategies, has opted for listing their characteristics. According to one researcher, “a strategy must involve choice (i.e. there should be several strategies to choose from), be complex (i.e. there should be several steps to learn), require knowledge and benefit from training, and increase the efficiency of vocabulary learning and vocabulary use” (Nation, 2001, p. 217).

1.2.2.2. Classifications of vocabulary learning strategies

There are numerous different classification systems for vocabulary learning strategies. Some representative classifications are listed at the following.

1.2.2.2.1. Oxford's VLS classification

Oxford' taxonomy is one of the most accepted and comprehensive classification. Oxford (1990) classified vocabulary learning strategies into two main types: direct strategies and indirect strategies. Direct strategies are the strategies that directly involve the target language in the sense that they need mental processing of the language. Indirect strategies indirectly support language learning by arranging, evaluating, lowering anxiety, encouraging oneself, cooperating with others, asking questions, and other ways. Direct strategies include memory, cognitive and compensation strategies. Memory strategies are those that help students to store and retrieve information. Cognitive strategies enable learners to understand and produce new language. Compensation strategies allow learners to overcome knowledge gaps to communicate. Indirect strategies include three strategies: metacognitive, affective and social strategies. Metacognitive strategies allow learners to control their own learning through organizing, planning, and evaluating. Affective strategies help learners gain

control over their emotions, attitudes, motivations, and values. Social strategies help learners interact with other people. The detailed Oxford's (1990) taxonomy of language learning strategies is as follows:

* *Direct strategies*

1) Memory strategies

- A. Creating mental linkages
- B. Applying images and sounds
- C. Reviewing well
- D. Implying action

2) Cognitive strategies

- A. Practicing
- B. Receiving and sending messages
- C. Analyzing and reasoning
- D. Creating structure for input and output

3) Compensation strategies

- A. Guessing intelligently
- B. Overcoming limitations in speaking and writing

* *Indirect strategies*

1. Metacognitive strategies

- A. Centering your learning
- B. Arranging and planning your learning
- C. Evaluating your learning

2. Affective strategies

- A. Lowering your anxiety
- B. Encouraging yourself
- C. Taking your emotional temperature

3. Social strategies

- A. Asking questions
- B. Cooperating with others
- C. Empathizing with others

1.2.2.2.2. O' Malley & Chamot's VLS classification

O'Malley and Chamot (1990) identified three categories of vocabulary learning strategies, cognitive, metacognitive and social/affective. Cognitive strategies are specified as learning steps that learners take to transform new material, for inference, contextual guessing and relating new information to other concepts from memory. Metacognitive strategies involve consciously directing one's own efforts into the learning task. Social/affective strategies involve interaction with another person or taking control of one's own feelings on language learning.

1.2.2.2.3. Gu and Johnson's VLS classification

Gu and Johnson (1996) conducted a questionnaire to investigate Chinese advanced learners' use of English vocabulary learning strategies; they divided vocabulary learning strategies into two classes: cognitive and metacognitive strategies. Cognitive strategies contain memory strategies, classification strategies, guessing strategies, dictionary strategies, note-taking strategies and activation strategies. Metacognitive strategies contain plan-making strategies, self-evaluating strategies, self-checking strategies and selectively distributing attention strategies.

I.2.2.3. The role of technology in language learning

I.2.2.3.1. The evolution of digital learning tools

The advancement of digital learning tools has revolutionized education, making knowledge more accessible, interactive, and efficient. From traditional classrooms with blackboards to modern online learning platforms, technology has significantly transformed the way students acquire knowledge.

*** *Early digital learning tools***

The introduction of computers in education in the late 20th century marked the beginning of digital learning tools. In the 1980s and 1990s, schools began using educational software such as Microsoft Encarta, an early digital encyclopedia, to replace traditional textbooks. According to Seymour Papert, a pioneer in educational technology, "the role of the teacher is to create the conditions for invention rather than provide ready-made knowledge." This shift in pedagogy was evident with the development of computer-based training (CBT) programs, which allowed students to engage in self-paced learning. These tools, such as IBM's PLATO system, provided an alternative to conventional teaching methods but were still limited in accessibility and interactivity. Additionally, as Neil Postman noted in his book *Technopoly* (1992), "New technology alters the structure of our interests: the things we think about, the things we think with, and the arena in which thought develops." The early digital tools, though transformative, were just the beginning of a broader shift toward technology-driven education.

*** *The Rise of the Internet and Online Learning***

The rise of the internet in the late 1990s and early 2000s brought about a major shift in digital education. Learning Management Systems (LMS) such as Blackboard and Moodle enabled institutions to provide online courses,

assignments, and resources. As Clayton Christensen mentioned in *The Innovator's Dilemma*, disruptive technologies often redefine entire industries, and education was no exception. The launch of platforms like Khan Academy in 2008 further expanded digital learning by offering free educational videos on various subjects, making knowledge available to students worldwide. Salman Khan, the founder, emphasized in his book *The One World Schoolhouse* that "education should be more like a library than a one-size-fits-all system." His vision helped shape the rise of on-demand, self-paced learning.

Massive Open Online Courses (MOOCs) emerged as a significant breakthrough in digital learning. Platforms like Coursera and edX, established in the early 2010s, allowed students to access high-quality courses from prestigious universities, breaking geographical and financial barriers in education. In *The Global Achievement Gap*, Tony Wagner highlights how such platforms help develop critical thinking and problem-solving skills, essential for the modern workforce. According to Daphne Koller, co-founder of Coursera, "Online education isn't just about putting traditional lectures on the internet; it's about using technology to enhance learning experiences." Additionally, in *A New Culture of Learning*, Douglas Thomas and John Seely Brown argue that "the ability to learn is more important than the ability to know," reinforcing the role of MOOCs in fostering continuous learning. These platforms provided certificates and even full-degree programs, making digital learning a viable alternative to traditional education.

* Interactive and AI- Powered learning tools

Recent advancements in artificial intelligence (AI) and interactive technologies have further enhanced digital learning tools. AI-driven platforms like Duolingo for language learning and personalized tutoring systems such as Carnegie Learning use machine learning to adapt lessons based on individual progress. This personalized approach helps students learn more efficiently and

effectively. As Peter Norvig, AI expert and co-author of *Artificial Intelligence: A Modern Approach*, stated, "AI in education can provide students with individualized instruction at a level never before possible."

Virtual Reality (VR) and Augmented Reality (AR) are also reshaping education. For instance, Google Expeditions allows students to take virtual field trips to historical sites or explore the human body in 3D, providing immersive learning experiences that were previously impossible in traditional classrooms. In *Learning Transformed*, Eric Sheninger and Thomas Murray emphasize that "immersive technologies like VR and AR bridge the gap between theoretical and experiential learning, making education more engaging and effective."

1.2.2.3.2. Benefits and challenges of using technology for language learning

Technology has significantly transformed language learning by making it more accessible and interactive. One of the main benefits is personalized learning. AI-driven platforms like Duolingo and Rosetta Stone adapt lessons based on users' progress, enhancing learning efficiency. According to Carol Chapelle in *Computer Applications in Second Language Acquisition*, digital tools provide "immediate feedback and individualized instruction, which are crucial for language acquisition."

Another advantage is increased exposure to authentic language use. Online resources such as podcasts, YouTube tutorials, and language exchange platforms like Tandem allow learners to interact with native speakers and practice real-world communication. Research by Stephen Krashen in *Principles and Practice in Second Language Acquisition* supports the idea that "comprehensible input"—exposure to language in context—is essential for effective learning.

However, there are challenges. Over-reliance on technology can reduce face-to-face communication skills, and automated feedback may lack the depth of

human correction. Additionally, digital learning requires strong self-discipline, as noted by Richard E. Mayer in *Multimedia Learning*, who cautions that "without guidance, learners may struggle to process and retain information effectively."

Despite these challenges, technology continues to play a crucial role in making language learning more engaging and efficient.

1.2.2.4. Online Applications for Vocabulary Improvement

With the rise of digital learning, online applications have become an essential tool for vocabulary improvement. These applications use various techniques, such as spaced repetition, gamification, and AI-driven learning, to enhance word retention and usage. Below is an analysis of different types of vocabulary-learning apps, their effectiveness, and their challenges.

1) Anki – The Most Efficient Flashcard System

Best for: Students and professionals preparing for standardized tests (TOEFL, IELTS, GRE, SAT) and those who want long-term vocabulary retention.

Anki is one of the most powerful tools for learning vocabulary through a **flashcard-based system**. It employs the **Spaced Repetition System (SRS)**, which schedules flashcards based on how well you remember words. Words that are difficult for you appear more frequently, while words you have mastered appear less often, ensuring **maximum retention with minimal effort**.

Key features:

- ✓ **Highly customizable:** Users can create personalized flashcard decks or download pre-made decks tailored for specific exams.
- ✓ **Supports multimedia learning:** Learners can add images, audio, and even video clips to flashcards to enhance memory retention.

- ✓ Syncs across devices: Available on Windows, Mac, iOS, and Android, with cloud synchronization to ensure seamless learning.
- ✓ Analytics and progress tracking: Users can monitor their learning efficiency and adjust their study habits accordingly.

Research support:

According to **Paul Nation** in *Learning Vocabulary in Another Language*, spaced repetition is one of the most effective strategies for retaining new words in long-term memory. Anki's system is built precisely on this principle.

2) Quizlet –Fun and Interactive Flashcards

Best for: Students who enjoy a mix of flashcards, quizzes, and interactive learning.

Quizlet is another excellent flashcard-based app, but unlike Anki, it offers more **interactive features**. It provides **pre-made vocabulary sets** as well as the option to create your own. Quizlet's gamification approach makes learning **fun and engaging**.

Key features:

- ✓ Multiple study modes: Includes flashcards, quizzes, matching games, and practice tests to reinforce vocabulary learning in different ways.
- ✓ Audio pronunciation feature: Helps learners practice pronunciation alongside meaning.
- ✓ Adaptive learning: The "Learn" mode tracks progress and focuses on weaker words, ensuring a more efficient learning process.
- ✓ Customizable study sets: Users can add images, example sentences, and even voice recordings to their study materials.

Research support:

As **Richard E. Mayer** explains in *Multimedia Learning*, the integration of multiple input modes—such as text, audio, and images—creates a more effective learning experience by engaging different cognitive pathways. When learners see a word in written form, hear its pronunciation, and associate it with an image, they are more likely to retain and recall the information accurately. Quizlet effectively applies this principle through its interactive flashcards, audio pronunciation features, and image-based learning tools, helping learners build stronger connections between vocabulary words and their meanings. By combining these elements, Quizlet reinforces memory through multisensory engagement, making vocabulary acquisition more effective and long-lasting.

3) Memrise – Learning Vocabulary with Native Speaker Videos

Best for: Learners who want to see and hear vocabulary used in **real-life contexts**.

Memrise takes a unique approach by combining **Spaced Repetition with native speaker video clips**. Instead of just memorizing words, learners watch short clips of real people using them in natural conversations, improving **contextual understanding and pronunciation**.

Key features:

- ✓ **Real-life video clips:** Helps learners associate words with real-world conversations.
- ✓ **Memory techniques and mnemonics:** Uses humor and creativity to help users remember difficult words.
- ✓ **Gamified learning experience:** Includes leaderboards, badges, and daily challenges to keep users motivated.

✓ Offline mode: Users can download lessons and practice anytime, even without an internet connection.

Research report:

According to **Stephen Krashen** in *Principles and Practice in Second Language Acquisition*, learning vocabulary through **meaningful context and real-life interactions** significantly improves retention and practical usage. He argues that vocabulary acquisition is most effective when learners encounter new words in situations that provide natural context, rather than through isolated memorization. When a learner engages with vocabulary in real-life situations—such as conversations, reading materials, or multimedia content—they form stronger mental associations, making it easier to recall and apply those words when needed.

4) Duolingo – Gamified Learning for Beginners

Best for: Beginners looking for **structured, daily vocabulary practice** in a game-like environment.

Duolingo is one of the most popular language-learning apps, offering short, **interactive lessons** that incorporate **listening, speaking, reading, and writing**. Its **game-like approach** encourages learners to **stay motivated** through points, streaks, and achievements.

Key features:

✓ Short daily lessons: Each lesson lasts only 5–10 minutes, making it easy to incorporate into daily routines.

✓ AI-powered adaptive learning: Adjusts the difficulty of lessons based on the learner's progress.

✓ Multiple-choice, fill-in-the-blank, and matching exercises: Reinforces vocabulary in different ways.

✓ Speech recognition feature: Allows users to practice pronunciation with real-time feedback.

Research support:

As **James Paul Gee** discusses in *What Video Games Have to Teach Us About Learning and Literacy*, incorporating gamification into learning increases motivation and improves retention by **engaging learners through a sense of accomplishment and challenge**. This concept is effectively applied in **Duolingo**, which uses elements such as **streaks, experience points (XP), and level progression** to encourage consistent learning and make vocabulary acquisition more enjoyable.

CHAPTER II: METHODOLOGY

II.1. Survey research

Step in conducting a survey research.

When performing a survey analysis, the investigator must determine carefully how the experiment is to be conducted. These include a great deal of step such as:

1. Defining the purpose and objective of the study.
2. Selecting and defining the target population.
3. Choosing and selecting techniques for data gathering.
4. A major and good representative (sample) of the population is to be taken.
5. The process of data gathering (or simple the step of executing the research), where the interviews, questionnaires or any other instrument is used for which the questions are pre- designed.
6. The questionnaire (if used) is then followed up. The questions asked from the interviewee are answered, evaluated and hence the process of data gathering is completed.
7. The data gathered is processed, analyzed, and interpreted, from which the results are concluded and the findings are the generalized.

Following these steps will helps researcher understand and build answers from themselves based on the survey data sheet they read.

II.2. The participants

The participants in this study are the first- year student of non-English major at HPU in the academic year of 2024/2025. The number of participants is

50 students which are divided into two branches: Bachelor of Business (16 students) and Bachelor of Engineer (34 students). They are approximately from 19 to 21 in age. The majority of students are female students. Most of them come from rural districts of Hai Phong and bring with them different level of English background. The total sample of students involved in the study is 50 students were chosen randomly.

The most difficulty of the learners is that they cannot express their ideas in speaking and writing lessons and it is difficult for them to get the gist of information from the conversation or texts in listening and reading lessons. They said that the reason for these difficulties is that they lack a great deal of vocabulary. So, there is a need to find ways to help the learners enrich their vocabulary.

II.3. Data collection and analysis

The questionnaires were delivered to 50 students during the regular class time in the classrooms. The students were given clear instruction before each item so that they could respond appropriately to each item. The questionnaires were expected to be returned within 30 minutes. After the questionnaires were returned, the data were collected and the data were selected by analyzing the questionnaire individually.

This chapter presents the results of the research study. This chapter presents the results of the study. The first two sections, the questionnaire on students' background and habits of learning vocabulary through online applications, report the participants' English learning background and their habits of learning vocabulary through applications. The last two sections, the questionnaire on vocabulary learning strategies and attitudes, report the learning strategies used by the learners.

II.3.1.Student's background information

In the first phase of the research, a six-item questionnaire was given to the respondents. The background questionnaire collected data on a variety of background categories. The participants have indicated their name, age, gender and English language experience. It mainly served three purposes: to provide personal data on participants, to get an overview of the English learning experience and to elicit the opinions about learning vocabulary. The questionnaire was administered in a written manner. Table 1 shows some personal information of students.

Gender	Age	# of years studying English	English proficiency	Enjoy learning English
Female	19-21	8-10	Weak= 12 Average= 7 Good= 24 Excellent= 0	YES
Male	19-20	8-10	Weak= 1 Average= 0 Good= 4 Excellent= 2	YES

Table 1: personal information of the study participants

There were 7 male and 43 female learners included in the study. This shows that there are more females studying foreign languages than males. The first data collected from the survey questionnaires was years of learning English. The overall number of years studying English was from 8-10 years of learning experience and This is a good indicator that the study participants are good at learning English. It can be inferred that these students have a good background knowledge of English.

In fact, 4% of the participants were very good at English, 56% of the participants were good at English, and 40% were poor and average at English. However, a very good point is that all the students enjoyed learning English.

II.3.2. Student' attitudes of learning vocabulary

It is necessary to take into account the students' attitudes towards learning English vocabulary especially when supported by digital technology. When they see the need to learn vocabulary for their studies and the effectiveness that online learning applications bring, they will be highly motivated in the learning process.

Regarding *question number 6* related to the interest in learning vocabulary on online learning applications from the students' perspective, it is noteworthy that most students, specifically 95% felt that learning vocabulary on digital platforms was extremely interesting and engaging for them. This was expected because adult learners know that vocabulary development is an important aspect of fluent communication. However, there are also 5% of them who feel that learning vocabulary online is not attractive enough for them, most of them are with poor or average academic performant.

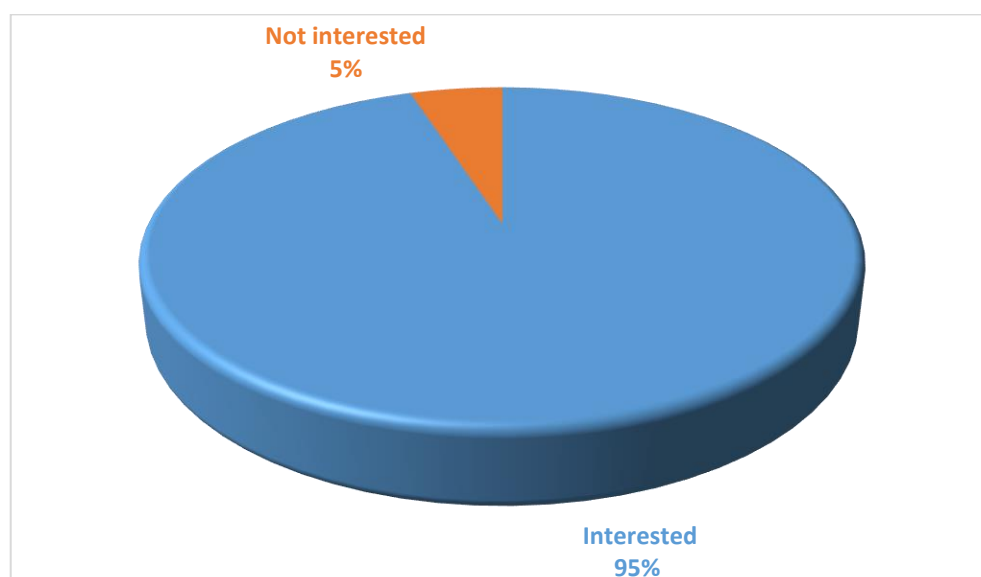


Table 2: Attitudes of students toward learning of English vocabulary through online apps

The next question, *question number 7* investigated about attitudes of students toward the memorability of English vocabulary learning methods through online applications. Results of investigation were shown in the following the pie chart.

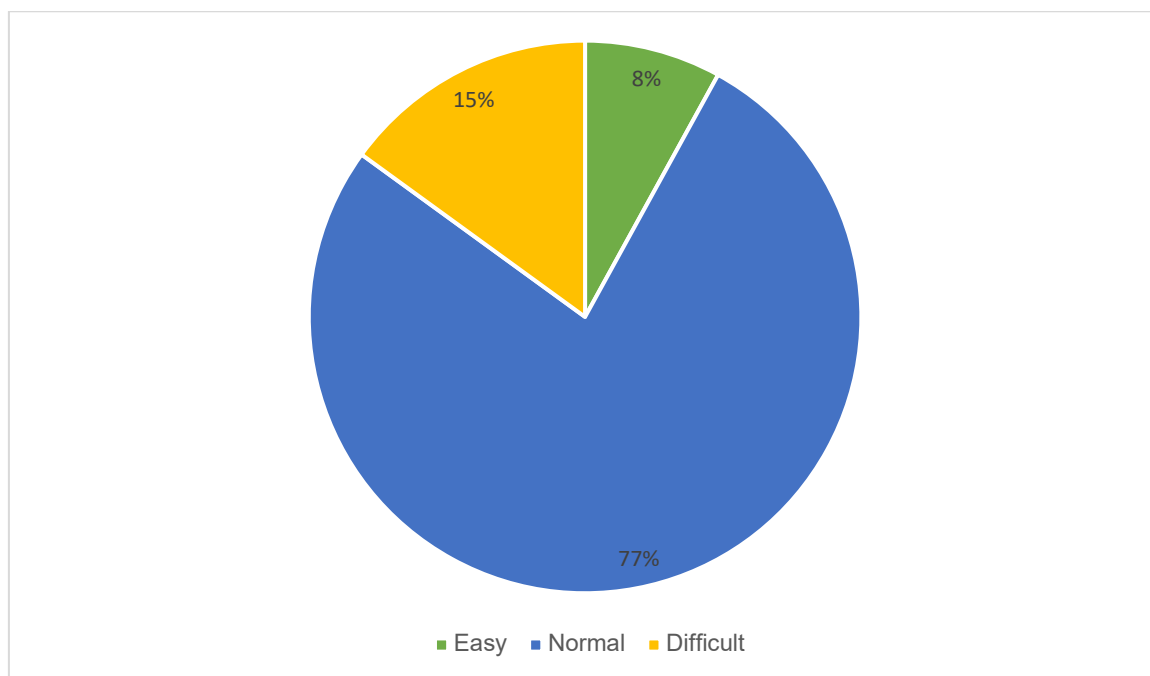


Table 3: Attitudes of students toward the memorability of English vocabulary learning methods through online applications

As can be seen from the table above, the majority of students, namely 77%, can memorize English vocabulary when learning on online applications and 14% find it difficult to memorize using this form of learning. One of the reasons is that they have to deal with a large number of new words after each lesson. However, 8% of them think that memorizing using this method is quite easy.

II.3.3. Students' habit of learning English vocabulary

Below is a detailed analysis of the usage of English vocabulary learning methods among first-year non-English major students at HPU, highlighting the preference for modern methods over traditional ones.

Learning Method	Percentage of Students (%)	Category	Notes
Learning from textbook	30%	Traditional method	Systematic but less engaging
Learning through online apps	75%	Modern method	Personalized, convenient, and highly interactive
Taking notes and review	20%	Traditional method	Reinforces memory but time-consuming
Learning through movies, songs and games	~100%	Modern method	Natural, engaging, and less stressful
Have used vocabulary learning apps	~80%	Modern method	Most students have tried online learning tools
Popular apps use			Duolingo, Memrise, Quizlet, Anki, Cake
Frequency of using vocabulary learning apps			
<i>Daily</i>	40%	Modern method	Regular usage, high effectiveness
<i>3-5 times per week</i>	30%	Modern method	Maintains consistent learning
<i>1-2 times per week</i>	20%	Modern method	Infrequent learning
<i>Rarely</i>	10%	Modern method	Rarely utilizes online tools

Table 4: Analysis of English Vocabulary Learning Methods Among First-Year Non-English Major Students at HPU.

The survey results indicate that students predominantly prefer modern vocabulary learning methods over traditional ones. Specifically, 75% of students utilize online learning apps, and nearly 100% learn through movies, songs, and games. In contrast, only 30% rely on textbooks, and 20% use the traditional method of note-taking and reviewing. This significant difference suggests that students are shifting towards more engaging and interactive ways of acquiring vocabulary rather than relying on conventional study materials.

The widespread adoption of online vocabulary learning apps further highlights this trend. Approximately 80% of students have used these digital tools, demonstrating a high level of technological integration into their learning habits. Furthermore, data on usage frequency shows that 70% of students engage with these apps at least three times per week. This consistency in usage indicates that students not only recognize the effectiveness of online tools but also prefer them as a primary method for improving their vocabulary skills.

Modern learning methods provide notable advantages that make them more appealing than traditional approaches. Online apps offer flexibility, accessibility, and personalized learning experiences, making vocabulary acquisition more efficient and engaging. Additionally, learning through movies, songs, and games allows students to absorb new words naturally within contextual settings, making the process enjoyable and reducing stress. Although textbooks and note-taking remain valuable for systematic learning, they are less favored due to their lack of interactivity and motivation. This shift suggests that students are increasingly seeking dynamic and immersive methods to enhance their English vocabulary.

II.3.4. The effectiveness of vocabulary learning applications

Below is a survey data table focusing on positive feedback regarding the use of online vocabulary learning apps.

1. Effectiveness of Vocabulary Learning Apps

Level of Vocabulary Improvement	Percentage of Students (%)
A lot	50%
Quite a lot	40%
A little	9%
Not effective	1%

Table 5: effectiveness of vocabulary learning apps

This table reflects students' perceptions of the effectiveness of vocabulary learning apps. Over 90% of students believe that these apps significantly help improve their vocabulary. Specifically, 50% of students report that the app helps a lot in improving vocabulary, and 40% find the improvement quite substantial. This clearly indicates that online vocabulary learning apps play an important role in enhancing students' vocabulary, highlighting their superiority over traditional methods.

2. Skills Improved by Using Vocabulary Learning Apps

Skill	Percentage of Students (%)
Improved reading skill (remembering vocabulary longer)	80%
Improved speaking skill (Better pronunciation)	60%
Improved writing skill (More accurate grammar and word usage)	50%
Improved listening skills	70%

Table 6: Skills Improved by Using Vocabulary Learning Apps

The results from this table indicate that using vocabulary learning apps not only helps students improve vocabulary retention but also enhances other language skills such as pronunciation, grammar, and listening skills. More than 80% of students state that they can remember vocabulary longer after using the app, while 70% report improvement in their listening skills. These figures are crucial, as they show that vocabulary learning apps contribute to the overall development of language skills, not just vocabulary acquisition.

3. Advantages of Vocabulary Learning Apps

Advantages	Percentage of Students (%)
Various and interesting content	75%
Easy to use and convenient	85%
Learn anytime, anywhere	90%
Reminder feature for revision	65%

Table 7: Advantages of Vocabulary Learning Apps

This table highlights the advantages that students perceive when using vocabulary learning apps. The most mentioned benefits are "learn anytime, anywhere" (90%), "easy to use and convenient" (85%), and "diverse and interesting content" (75%). These advantages enhance the appeal and convenience of learning vocabulary through apps, making it easier for students to access and maintain a consistent study habit. The flexibility and ease of use of online vocabulary learning are major reasons why students choose this method over traditional approaches like note-taking and reviewing.

CHAPTER III: FINDING AND DISCUSSION

III.1. Comparison with Traditional Vocabulary Learning Methods

When comparing traditional vocabulary learning methods with app-based approaches, it becomes evident that online applications offer several significant advantages in terms of engagement, retention, and adaptability. Traditional methods such as rote memorization, copying word lists, or relying solely on textbooks tend to be passive, repetitive, and often fail to sustain students' motivation over time. These methods typically lack immediate feedback, contextual usage, and personalized learning paths, which can hinder deep vocabulary acquisition.

In contrast, online vocabulary learning applications like Duolingo, Memrise, or Quizlet integrate gamified elements, spaced repetition systems, and multimedia content to enhance learner engagement and memory retention. Students using these apps are exposed to vocabulary in multiple formats—text, audio, images, and example sentences—making the learning experience more interactive and effective. Moreover, many apps adjust the difficulty level based on the learner's performance, which fosters a sense of progress and personalization.

The findings of this study reveal that students who used online applications showed noticeable improvements in both short-term memorization and long-term retention of vocabulary compared to those who relied on traditional techniques. Learners also reported feeling more motivated and less anxious due to the non-threatening, game-like nature of the apps. Additionally, the portability and accessibility of mobile apps allow learners to review vocabulary anytime and anywhere, supporting continuous and flexible learning.

Aspect	Traditional Methods	Digital Methods
Learning tool	Textbooks, dictionaries, handwritten notes	Mobile apps (Duolingo, Quizlet, Memrise), flashcards, audio-visual resources
Engagement Level	Often passive, reliant on repetition	High engagement through gamification and interactive features
Learning Flexibility	Fixed schedule, dependent on classroom settings	Flexible learning anytime, anywhere with mobile access
Retention Techniques	Rote memorization, limited reinforcement	Spaced repetition systems, interactive quizzes, multimedia support
Motivation Factors	Teacher-led, minimal motivational elements	Game-based rewards, progress tracking, personalized reminders
Feedback Mechanism	Delayed, teacher-dependent feedback	Instant feedback, self-assessment tools
Social Interaction	Limited, often restricted to classroom	Peer comparison, discussion forums, online learning communities
Adaptability	One-size-fits-all approach	Adaptive learning paths based on learner performance
Technology Integration	Minimal or none	High; includes audio, visuals, AI and real-life language context

Table 8: *Comparison of Traditional Vocabulary Learning and App-based Learning*

Overall, while traditional methods still play a role in structured classroom settings, the integration of vocabulary apps provides a more dynamic, engaging, and effective way to acquire and retain new words. For modern learners, especially digital-native students, this approach appears to be more aligned with their learning preferences and lifestyles.

III.2. Effectiveness of Online Applications in Vocabulary Learning

In recent years, the integration of technology into language education has opened new avenues for vocabulary acquisition, especially through the use of online applications. These tools offer interactive, flexible, and personalized learning experiences that are believed to enhance vocabulary retention and motivation among learners. This section aims to explore the effectiveness of such applications in supporting vocabulary learning, particularly for non-English major students. The following sub-sections will examine various aspects such as learner engagement, improvement in vocabulary size, ease of use, and learners' perceptions, thereby providing a comprehensive understanding of how online platforms contribute to vocabulary development.

III.2.1. Improvements in vocabulary retention

The findings from the student survey at HPU reveal that online vocabulary learning applications significantly enhance vocabulary retention among first-year non-English major students. According to the data presented in Table 6 of the study, 80% of the respondents reported that they could remember vocabulary longer after using online learning apps. This result confirms the high effectiveness of digital platforms in supporting long-term memory, especially compared to traditional rote-learning methods.

This improvement can be attributed to features commonly found in vocabulary learning apps, such as spaced repetition, multimodal input (text, audio, visuals), and gamification elements, which are consistent with theories in second

language acquisition. Paul Nation (2001) emphasized that multiple exposures to a word in various contexts are crucial for deep vocabulary learning and long-term retention. Applications like Anki and Quizlet apply this principle through their Spaced Repetition System (SRS), which reschedules vocabulary review based on user performance, optimizing memory consolidation over time.

Furthermore, Richard E. Mayer's (2001) *Multimedia Learning Theory* supports the notion that combining visual, auditory, and textual cues increases cognitive processing and memory retention. This aligns with the app features most appreciated by students, such as audio pronunciation, image associations, and interactive practice activities. As 85% of students in the survey found the apps easy to use and 90% appreciated the ability to "learn anytime, anywhere," the frequent and convenient exposure to vocabulary contributes further to retention.

Students also reported that apps encouraged consistent study habits—with 70% using apps at least three times a week—indicating that regular, bite-sized practice sessions facilitate the mental reinforcement necessary for memorization (Krashen, 1982). While 14% of students still found it difficult to retain words learned online, this minority suggests that factors like individual learning preferences or poor app engagement might limit effectiveness in some cases.

In conclusion, based on both the quantitative survey results and supported theoretical frameworks, it is evident that online vocabulary learning applications play a critical role in improving students' ability to retain English vocabulary. Their design elements align well with established cognitive and language learning theories, making them a valuable tool for modern language education, especially for learners with limited exposure to English outside the classroom.

III.2.2. Differences in learning outcomes compared to traditional methods

The survey results indicate a clear difference in learning outcomes between students who use online vocabulary learning applications and those who rely primarily on traditional methods. While traditional approaches such as learning from textbooks and note-taking remain part of students' learning routines, they are increasingly perceived as less effective in comparison to digital tools.

According to the data in Table 4, only **30%** of the students reported using textbooks for vocabulary learning, whereas **75%** preferred learning via online applications. More significantly, **over 90%** of students (Table 5) reported substantial improvement in vocabulary knowledge through app-based learning, with **50%** stating it helped "a lot" and **40%** saying it helped "quite a lot." In contrast, traditional methods were often viewed as time-consuming and less engaging, leading to reduced motivation and inconsistent practice.

The effectiveness of online tools is further reinforced by their impact on multiple language skills. As shown in Table 6, **80%** of students noted better long-term vocabulary retention, **70%** reported improved listening skills, and **60%** experienced enhanced pronunciation. These results contrast with traditional methods that often emphasize written memorization without offering opportunities for multisensory reinforcement or contextual learning.

From a theoretical standpoint, Nation (2001) argues that vocabulary learning is most successful when learners receive repeated, meaningful exposure to words in context—something online apps like **Memrise** and **Duolingo** provide through video clips, speech recognition, and interactive activities. In contrast, traditional methods often focus on isolated word lists, limiting both depth of understanding and retention.

Moreover, gamification elements and spaced repetition systems embedded in applications such as **Anki** and **Quizlet** have been shown to increase learner engagement and efficiency. These tools adapt to individual progress, ensuring that learners focus more on difficult vocabulary, a feature unavailable in traditional materials.

Despite these advantages, traditional methods still offer some benefits, particularly in academic settings that require structured curriculum and formal assessments. However, the survey results and student feedback strongly suggest that online applications offer superior outcomes in terms of vocabulary acquisition, learner motivation, and language skill integration.

In summary, while both approaches have their place in vocabulary learning, the research findings highlight the distinct advantages of online vocabulary learning applications over traditional methods, particularly in terms of effectiveness, engagement, and long-term retention for non-English major students.

III.3. Students' Motivation and Engagement

Student motivation and engagement are essential factors in the success of vocabulary learning. The results from the current study suggest that online vocabulary learning applications have a significant positive influence on students' motivation and learning engagement.

As indicated in the survey (Table 2), **95% of students** expressed that learning vocabulary through online apps was “interesting and engaging.” This high level of interest suggests that online platforms offer a more stimulating environment compared to traditional methods, which are often perceived as monotonous or overly repetitive. Gamified elements such as points, streaks, leaderboards, and visual progress tracking—found in apps like **Duolingo** and

Quizlet—are particularly effective in motivating students by providing a sense of achievement and competition.

James Paul Gee (2003), in *What Video Games Have to Teach Us About Learning and Literacy*, emphasized that gamification increases motivation by creating an environment where learners are rewarded for progress, making the learning process feel more like a game than a chore. This theory is strongly supported by the students' feedback in the survey, where many stated that they preferred apps with game-like features over traditional textbook exercises.

Moreover, the flexibility and convenience offered by online learning contribute significantly to sustained motivation. According to Table 7, **90% of students** appreciated the ability to "learn anytime, anywhere," while **85%** found the apps "easy to use and convenient." This level of accessibility encourages regular practice, which is crucial for vocabulary acquisition.

Additionally, **70% of the participants** reported using vocabulary apps at least three times per week (Table 4), which indicates a high level of engagement. The frequent interaction with these tools helps establish consistent study habits, which, as Nation (2001) suggests, is a key factor in vocabulary development. Apps that send reminders or use daily streaks help maintain this regular learning routine, even among students who may lack intrinsic motivation.

However, some students (particularly the **5%** with weaker academic performance) reported lower engagement, citing that they found online vocabulary learning less attractive. This may be due to unfamiliarity with the tools, lack of digital literacy, or insufficient customization of the content to match their proficiency level.

In conclusion, the survey data clearly demonstrate that online vocabulary learning applications greatly enhance student motivation and engagement through interactive design, accessibility, and gamified learning strategies. These factors

contribute not only to increased frequency of study but also to more positive attitudes toward language learning, making them a powerful supplement to traditional classroom instruction. To further clarify the role of these applications in vocabulary learning, the following sections will examine students' attitudes toward app-based learning, compare digital and traditional methods, and identify the challenges students face in adopting this approach.

III.3.1. Influence of gamification and interactivity

Gamification and interactivity are two key features that make online vocabulary learning applications more appealing and effective for students. The survey conducted in this study shows that most students feel more motivated and maintain better learning habits when these features are integrated into the apps.

According to the survey results (Tables 2 and 4), **95% of students** stated that learning vocabulary through apps such as **Duolingo**, **Memrise**, and **Quizlet** became "more enjoyable" due to point systems, levels, leaderboards, and daily challenges. Additionally, **70% of students** reported using these applications at least three to five times per week—indicating high engagement, largely attributed to the gamified and interactive nature of the learning environment.

James Paul Gee (2003) emphasized that gamification not only enhances motivation but also supports systemic thinking, problem-solving, and persistence in learning. This aligns with feedback from students in the survey, who said that learning through apps felt more like “playing” than “studying,” which helped reduce stress and increase focus.

In addition, high interactivity—such as instant feedback, AI-powered pronunciation practice, word-matching games, and listening activities with real-life videos—improves learners' attention and memory retention. Richard E. Mayer (2001), in his *Multimedia Learning* theory, affirms that combining written

text, sound, and visuals facilitates dual-channel processing, which enhances understanding and long-term retention of knowledge.

One notable example is **Memrise**, which provides short video clips of native speakers using vocabulary in real contexts. This approach not only helps students acquire words more naturally but also improves listening skills—as reflected in Table 6, where **70% of students** reported better listening ability after using vocabulary apps.

However, some limitations still exist. A number of students shared that ads or content mismatched with their proficiency level could reduce interaction and cause distractions. Moreover, **35% of students** indicated that the lack of direct teacher guidance was a downside of app-based learning (Table 8).

In summary, gamification and interactivity are core elements that significantly enhance student motivation and vocabulary learning efficiency through online applications. These features not only make learning more dynamic but also encourage consistent study habits, which are essential for effective vocabulary acquisition in the digital age.

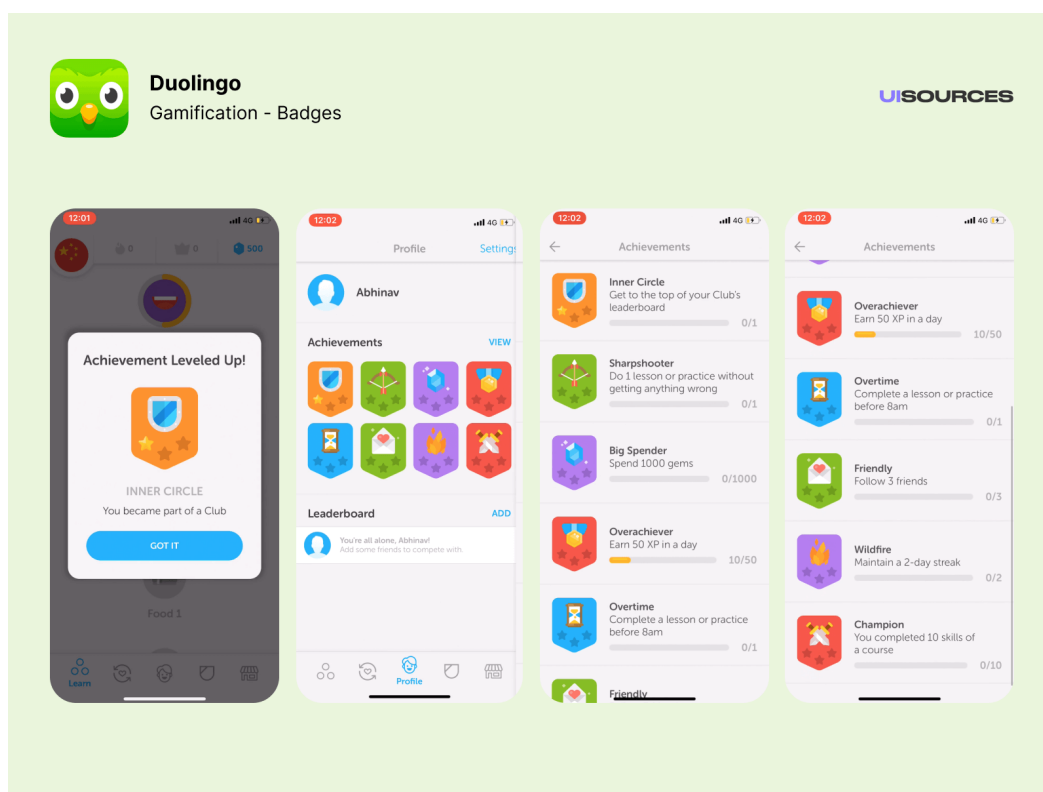
III.3.2. Student attitudes towards app-based learning

A positive learning attitude plays a crucial role in sustaining motivation in language acquisition, especially at the university level where learners are expected to take more responsibility for their own learning. In this study, the survey results revealed a clear trend: the majority of first-year non-English-major students at HPU expressed a highly positive attitude toward learning vocabulary through digital applications.

The first notable point is the high level of enjoyment students associate with this method. According to the survey, **95% of respondents** stated that they felt interested, relaxed, and motivated when using apps for vocabulary learning. This

indicates not only acceptance but also confidence in the effectiveness of digital tools. Many students reported that vocabulary learning no longer felt like a tedious or stressful task, but rather a flexible, engaging, and even “game-like” experience.

Where does this appeal come from? Primarily, it stems from the interactive and gamified nature of apps such as **Duolingo**, **Quizlet**, or **Memrise**. Features like point scoring, streak tracking, and quiz-style challenges encourage students to return daily and provide a sense of achievement. For young learners, such elements are crucial in maintaining long-term engagement—something traditional methods often struggle to achieve.



Source: [UI Sources](#)

Secondly, students appreciated the control and personalization offered by digital tools. They could choose levels, topics, time, and location to study, creating a learning environment that was flexible and less restrictive. As Chapelle (2001) noted, when learners can tailor and regulate their learning experience, they tend to invest more time and show a more committed attitude.

However, it is important to note that not all students shared the same enthusiasm. Around **5%** reported that they felt “distracted,” “unmotivated,” or “uncertain about where to begin” when using such apps. Analysis revealed that this group often consisted of students with weaker English proficiency or those unfamiliar with self-directed learning. Some also mentioned the lack of teacher guidance, which made them unsure whether they were learning effectively. This suggests that while applications are beneficial, they cannot completely replace the pedagogical role of teachers in a formal education setting.

III.4. Students’ Perceptions of Online Applications

Perceptions of learners toward any educational method play a crucial role in determining its effectiveness and potential for long-term integration. In the context of vocabulary learning through online applications, students’ attitudes reflect not only their experiences with technology but also their expectations regarding engagement, autonomy, and academic outcomes.

This study investigated the perceptions of first-year non-English major students at HPU through a detailed questionnaire. The findings reveal a generally positive outlook on digital vocabulary applications, while also highlighting certain concerns and limitations that must be addressed to optimize learning experiences.

III.4.1. Survey result on students preference

The student responses show a clear inclination toward vocabulary-learning apps that are interactive, gamified, and easy to navigate. When asked which apps they used most frequently, the top three were:

- **Quizlet** (70%) – appreciated for its flashcards, customizable word sets, and game-based learning modes.

- **Duolingo** (60%) – favored due to its streak-tracking, gamified interface, and short, consistent lessons.
- **Memrise** (45%) – known for video-based content and pronunciation practice with native speaker input.

These choices suggest that students prioritize usability, regular feedback, and variety in learning formats. They also enjoy the flexibility that these apps offer, as they can practice vocabulary during short breaks or between classes, without the need for a classroom or teacher supervision.

Students were asked to rank the features they considered most useful in vocabulary apps. The results are summarized below:

App feature	% of respondents(n=100)
Interactive activities and quizzes	88%
Audio-visual support (images, audio)	82%
Gamification (points, badges, streaks)	79%
Personalized learning path	74%
Progress tracking	67%
Teacher-provided content integration	40%

Table 9: Preferred Features in Vocabulary Learning Apps

One student commented: *“I like using Quizlet because I can create my own flashcards and test myself before exams. I feel more active and less bored compared to using the textbook.”*

Another stated: *“Duolingo motivates me to learn every day because I don’t want to lose my streak. It turns learning into a fun habit.”*

These insights affirm what Godwin-Jones (2011) observed: mobile learning environments enhance student agency, motivation, and engagement, particularly when designed with learner-centered features.

However, not all perceptions were positive. Approximately 20% of students expressed concern about the lack of academic depth, stating that apps sometimes focus more on memorization than on meaningful usage. Others complained about in-app advertisements, limitations in free versions, or repetitive content. For example, a student wrote:

“I enjoy the app at first, but after some time the lessons become too similar. I don’t feel like I’m progressing beyond basic vocabulary.”

Furthermore, a number of students (around 30%) reported struggling with self-discipline. While they downloaded vocabulary apps, they admitted to using them irregularly due to distractions from social media or lack of habit. This suggests that personal motivation and time management remain important factors influencing the effectiveness of online learning tools.

III.4.2. Recommendations for improving digital learning experiences

The findings from the student survey at HPU, combined with insights from current research, indicate that while online vocabulary learning applications offer clear advantages in flexibility and engagement, their impact is strongly influenced by how they are used and supported in real learning environments. Based on the

challenges reported by students and observations throughout the study, the following recommendations are proposed to foster integration between apps and classroom activities

One of the key weaknesses identified was the lack of connection between app usage and classroom learning. Many students felt that they were using apps independently without guidance or reinforcement. To address this, instructors can:

- Recommend specific vocabulary apps that align with course content.
- Create classroom activities (e.g., vocabulary games, peer quizzes, discussions) based on app-learned words.
- Assign app-based homework or revision tasks with regular follow-up and feedback.

This approach not only bridges the gap between digital and formal instruction, but also validates the use of mobile learning as part of the academic process.

In addition, the following suggestions will also help promote learning through online applications more effectively.

1. Enhance Student Motivation Through Goal-Setting and Gamification

Though gamification was praised by many students, others noted a gradual decline in motivation once the novelty wore off. To sustain engagement:

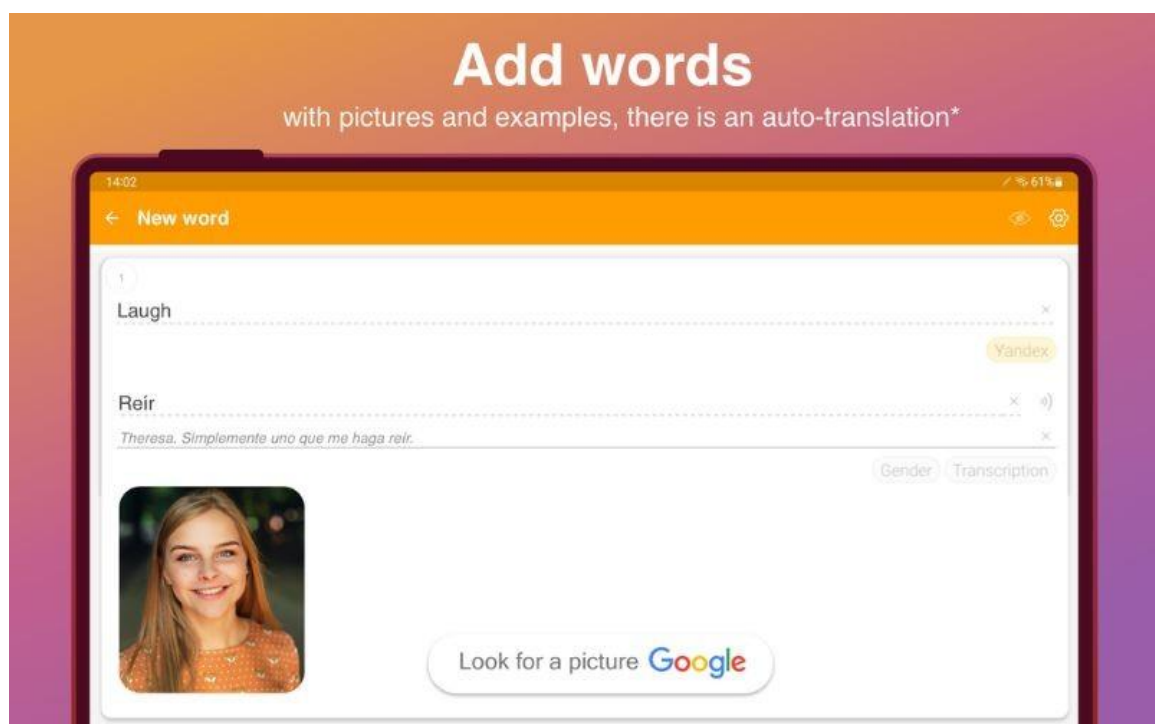
- Encourage students to set weekly vocabulary goals and track their own progress.
- Introduce friendly competitions using features like Quizlet Leaderboard or Duolingo class rankings.
- Provide small incentives or classroom recognition for consistent effort or improvement.

Studies such as Reinhardt & Sykes (2012) show that extrinsic rewards combined with intrinsic goals (e.g., language mastery) can significantly improve learning outcomes when balanced carefully.

2. *Improve the Depth of Vocabulary Learning in App Design*

Many students felt apps were useful for memorization, but lacked opportunities to apply words in meaningful contexts. Developers should:

- Integrate sentence-building, short writing tasks, or scenario-based practice.
- Provide more contextualized examples, showing how vocabulary functions in everyday communication or academic tasks.
- Include cultural context or idiomatic usage where appropriate.



Vocabulary adding feature in the Flashcards: Learn Languages app.

3. *Minimize Access Barriers: Reduce Ads and Expand Free Features*

Access remains a challenge for students with limited financial resources. Although most applications offer free versions, the experience is often hindered by:

- Excessive advertisements
- Locked key functions (e.g., review modes, pronunciation tools)

To improve this:

- Institutions could partner with app developers to provide group licenses or premium access for students.
- App designers should consider an education-focused version that limits ads and emphasizes learning features.

Reducing these barriers supports equity in access to digital learning resources, especially in public university contexts.



[Top 12 effective and free English learning and vocabulary apps.](#)

4. *Provide Training and Guidance on Digital Learning Strategies*

Students who were unfamiliar with certain apps or lacked study habits struggled to make consistent progress. To address this:

- Universities can offer orientation sessions or online tutorials on how to choose and use vocabulary apps effectively.
- Peer mentoring programs can allow experienced students to share strategies and recommend tools.
- Teachers can briefly demonstrate app features in class, helping students understand how to align app usage with learning goals.

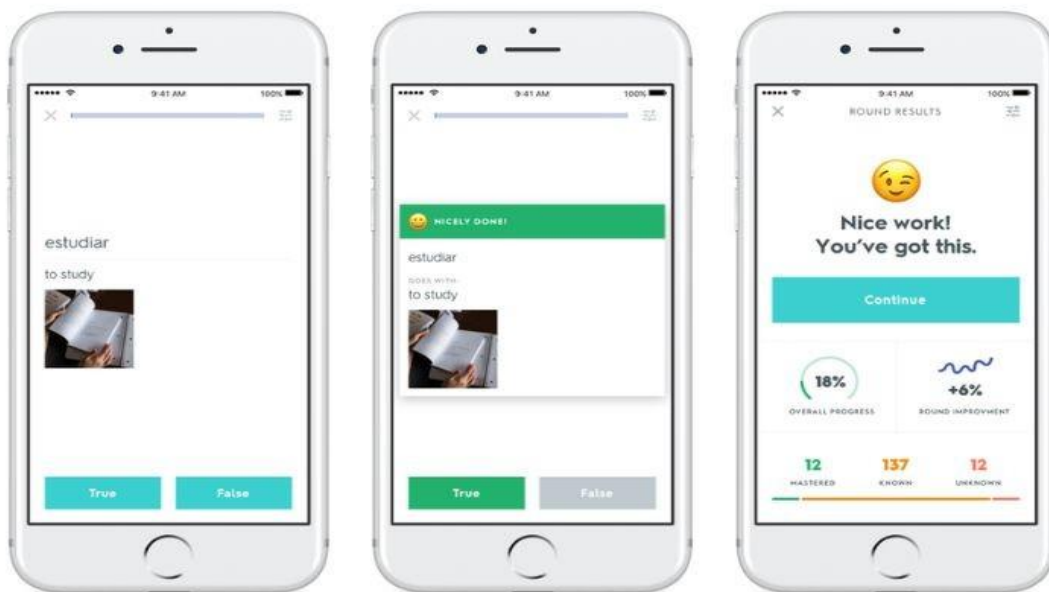
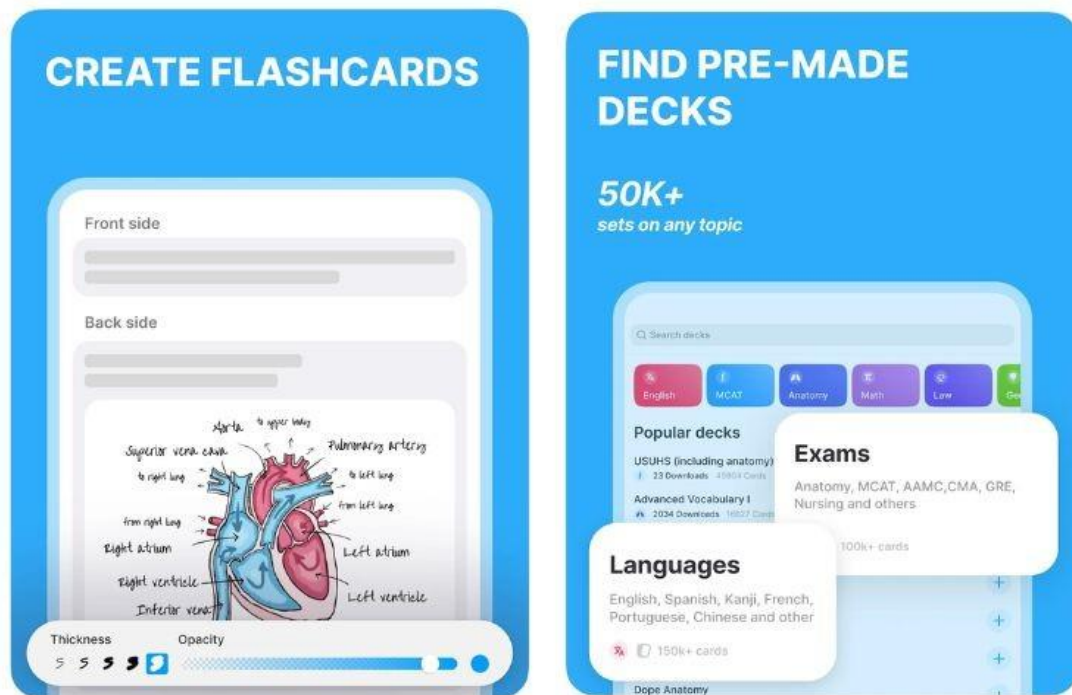
As Burston (2014) notes, technology alone is not sufficient—successful outcomes require digital literacy and guided use.

5. *Encourage Reflective Learning Practices*

Finally, apps should encourage students to reflect on what they learn. Reflection supports metacognitive awareness and helps students take ownership of their progress. Suggestions include:

- Weekly review summaries or “words of the week” logs.
- In-app questions like: “*How could you use this word in real life?*”
- A built-in notebook or digital journal for tracking usage and examples.

Such features promote deep processing and help transform passive word memorization into active language competence.



Anki and Quizlet both support effective memorization and encourage learners to reflect on the vocabulary they have studied.

PART THREE: CONCLUSION

This thesis set out to investigate the effectiveness of online vocabulary-learning applications in enhancing English vocabulary acquisition among first-year non-English major students at HPU. The research was driven by the growing relevance of technology in language learning and the necessity for innovative methods to support learners who may struggle with traditional approaches.

The theoretical framework explored various aspects of vocabulary acquisition, including what it means to “know a word,” vocabulary learning strategies (VLS), and the role of technology in language education. Studies by Nation (2001), Oxford (1990), and Krashen (1982) provided foundational perspectives on vocabulary development and the significance of learner-centered environments supported by mobile technology.

Through quantitative data collected via surveys with 100 first-year students, the study revealed several key findings. First, online vocabulary applications such as **Quizlet**, **Duolingo**, **Memrise**, and **Anki** were widely used and positively perceived by students. These tools were credited for promoting greater motivation, improving vocabulary retention through interactive and gamified features, and enabling flexible, autonomous learning. A significant proportion of students noted that app-based learning allowed them to integrate English practice into their daily lives more conveniently and enjoyably than traditional methods.

Nevertheless, the study also uncovered various challenges. These included technical issues such as advertisements and restricted access in free versions, difficulties in maintaining consistent study habits, and the absence of direct teacher feedback. Some students also expressed skepticism toward the academic depth of certain apps, especially when used without integration into a broader learning strategy.

Based on these insights, the thesis offers several recommendations: integrating vocabulary apps into classroom instruction, improving digital content design to ensure meaningful learning, supporting students with digital learning guidance, and expanding institutional access to high-quality applications. These measures aim to enhance both the effectiveness and sustainability of mobile-assisted vocabulary learning.

In conclusion, this study affirms that while online vocabulary applications are not a standalone solution, they represent a highly effective supplement to traditional instruction. Their success lies in how well they are implemented, supported, and integrated into the learner's broader educational context. For first-year non-English major students at HPU, these tools offer not only a practical means of building vocabulary but also a gateway toward greater autonomy, engagement, and confidence in using English.

REFERENCES

- Burston, J. (2014). *The reality of MALL: Still on the fringes*. CALICO Journal, 31(1), 103–125.
- Chapelle, C. A. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing and research*. Cambridge University Press.
- Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology*, 15(2), 2–11.
- Gu, Y., & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning*, 46(4), 643–679.
- Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Pergamon Press.
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271–289.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Heinle & Heinle.
- Reinhardt, J., & Sykes, J. M. (2012). *Language learning and technology: A twenty-first century perspective*. The Modern Language Journal, 96(s1), 1–6.

Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge University Press.

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. *Language Learning & Technology*, 14(2), 95–110.

APPENDIX: Survey Questionnaires

SURVEY

TOPIC: THE EFFECTIVENESS OF IMPROVING ENGLISH VOCABULARY THROUGH THE USING ONLINE APPS AMONG THE FIRST-YEAR NON-ENGLISH MAJORS AT HPU

Personal Information

1. Gender (Giới tính):

- ☐ Male (Nam)
- ☐ Female (Nữ)
- ☐ Other (Khác)

2. Your current major (Ngành học hiện tại):

3. How do you evaluate your current English proficiency level?

(Bạn đánh giá trình độ tiếng Anh hiện tại của mình như thế nào?)

- ☐ Weak (Kém)
- ☐ Average (Trung bình)
- ☐ Good (Khá)
- ☐ Excellent (Giỏi)

4. How long have you been learning English?:

5. Do you enjoy learning English?

☐ YES

☐ NO

6. Are you interested in learning English vocabulary through online learning apps?

☐ Not interested

☐ Interested

☐ Very interested

Part 1: The habit of learning English vocabulary

8. How do you usually learn English vocabulary? (You can choose more than one option)

(Bạn thường học từ vựng tiếng Anh bằng cách nào? Có thể chọn nhiều đáp án)

☐ From textbooks (Học từ sách giáo khoa)

☐ Through online learning apps (Học qua ứng dụng trực tuyến)

☐ Taking notes and reviewing (Ghi chép và ôn lại)

☐ Through movies, songs, and games (Học qua phim, bài hát, trò chơi) \

☐ Others (Please specify): _____ (Cách khác, vui lòng ghi rõ)

9. Have you ever used online apps to learn English vocabulary?

(Bạn đã từng sử dụng ứng dụng trực tuyến để học từ vựng tiếng Anh chưa?)

☐ Yes (Có)

☐ No (Chưa)

10. If yes, which apps have you used? (You can choose more than one option)

(Nếu có, bạn sử dụng ứng dụng nào? Có thể chọn nhiều đáp án)

- ☐ Duolingo
- ☐ Memrise
- ☐ Quizlet
- ☐ Anki
- ☐ Cake
- ☐ Others (Please specify): _____ (Khác, vui lòng ghi rõ)

11. How often do you use vocabulary learning apps?

(Bạn sử dụng ứng dụng học từ vựng với tần suất như thế nào?)

- ☐ Daily (Hàng ngày)
- ☐ 3-5 times per week (3-5 lần/tuần)
- ☐ 1-2 times per week (1-2 lần/tuần)
- ☐ Rarely (Hiếm khi)

Part 2: The effectiveness of vocabulary learning applications

12. Do you think online apps help improve your vocabulary?

(Bạn cảm thấy ứng dụng trực tuyến có giúp bạn cải thiện vốn từ vựng không?)

- ☐ A lot (Rất nhiều)
- ☐ Quite a lot (Khá nhiều)
- ☐ A little (Một chút)
- ☐ Not effective (Không hiệu quả)

13. Which skills have improved since using vocabulary learning apps? (You can choose more than one option)

(Những kỹ năng nào của bạn được cải thiện khi sử dụng ứng dụng học từ vựng?
Có thể chọn nhiều đáp án)

- ☐ Improving reading skills: remembering vocabulary longer (Nhớ từ vựng lâu hơn)
- ☐ Improving speaking skills: better pronunciation (Phát âm tốt hơn)
- ☐ Improving writing skills: more accurate grammar and word usage (Ngữ pháp và cách sử dụng từ chính xác hơn)
- ☐ Improved listening skills (Cải thiện kỹ năng nghe)
- ☐ Others (Please specify): _____ (Cách khác, vui lòng ghi rõ)

14. What are the advantages of using vocabulary learning apps? (You can choose more than one option)

(Bạn thấy ứng dụng học từ vựng có điểm mạnh nào?)

- ☐ Various and interesting content (Nội dung đa dạng, thú vị)
- ☐ Easy to use and convenient (Dễ sử dụng, tiện lợi)
- ☐ Learn anytime, anywhere (Học mọi lúc, mọi nơi)
- ☐ Reminder feature for revision (Có tính năng nhắc nhở ôn tập)
- ☐ Others (Please specify): _____ (Khác, vui lòng ghi rõ)

Part 3: Personal suggestions and opinions

16. Do you want to continue using online apps to learn vocabulary in the future?

(Bạn có muốn tiếp tục sử dụng ứng dụng trực tuyến để học từ vựng trong tương lai không?)

- ☐ Yes (Có)

- ☐ No (Không)
- ☐ Not sure (Không chắc)
- ☐ Others (Please specify): _____ (Khác, vui lòng ghi rõ)

Thank you for your participation!

(Cảm ơn bạn đã tham gia khảo sát!)