

Exploring EFL students' perceptions of using ChatGPT-supported Quizlet for vocabulary learning

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ABSTRACT

The role of vocabulary in facilitating reading and listening comprehension in a foreign language is widely acknowledged. Despite its importance, many university students in Vietnam still struggle to expand their vocabulary effectively. With the rapid development of digital technologies and artificial intelligence (AI), new opportunities for vocabulary learning have emerged. However, despite the growing use of digital tools, many studies examine them separately rather than exploring their combined use to maximize the benefits for vocabulary learning. This study aims to explore English-majored students' perceptions of the usefulness of ChatGPT-supported Quizlet (free version) for vocabulary learning in a university listening course in Vietnam. A mixed-methods approach was employed, using a 5-point Likert-scale questionnaire focusing on perceived usefulness and semi-structured interviews. Data were collected from 60 participants after 14 weeks of implementing the tools. The quantitative results indicate that students generally perceive the implementation of ChatGPT-supported Quizlet as useful for improving vocabulary learning, particularly in meaning retention, pronunciation, parts of speech, and contextual use. The qualitative findings further reveal that these tools help learners better understand words, identify parts of speech, and increase their exposure to vocabulary through accurate, instant, context-specific, and personalized examples from ChatGPT, a variety of interactive practice features from Quizlet, and by fostering learner autonomy. The findings highlight the importance of integrating AI-assisted tools into vocabulary instruction in Vietnamese EFL higher education contexts, with appropriate training in prompt writing and Quizlet use. Future research may further investigate the long-term effects of AI-assisted vocabulary learning on learners' vocabulary retention.

Keywords: artificial intelligence; ChatGPT; Quizlet; vocabulary learning

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INTRODUCTION

The role of vocabulary in facilitating reading and listening comprehension, which later supports productive language use in a foreign language, is widely acknowledged (McLean et al., 2020). In addition to linguistic competence, contemporary education also emphasizes crucial 21st-century learning skills such as 4Cs: communication, collaboration, critical thinking, and creativity (Herlinawati

et al., 2024). Among these, communication and collaboration depend heavily on learners' ability to accurately comprehend language input, emphasizing the importance of receptive skills for meaningful interaction (Khudayberdievna, 2025). However, insufficient vocabulary knowledge remains a significant barrier, as learners with limited lexical resources often struggle to comprehend spoken or written texts, thereby hindering their ability to participate effectively in communicating and collaborative activities.

Despite its recognized importance, many students in Vietnam still face challenges in developing sufficient vocabulary knowledge despite formal instruction (Yen, 2020). One key reason is the continued use of traditional approaches, such as bilingual vocabulary lists or rote memorization, which often offer limited context and engagement, making vocabulary learning time-consuming, demotivating, and difficult to retain (Egamova & Sharofova, 2022). This issue is further reflected in classroom practices in Vietnam, where vocabulary instruction in many classrooms remains teacher-centered and frequently focuses on translation rather than contextual language use (Tran et al., 2024). As a result, learners have limited exposure to vocabulary, which may negatively affect their ability to comprehend listening materials and other forms of input (Dang et al., 2021). These challenges indicate the need for more engaging and flexible strategies and techniques for vocabulary learning.

Recent advances in educational technology have introduced a range of digital tools that support vocabulary learning and promote learner autonomy, particularly by enabling self-directed learning, personalized practice, and flexible access to vocabulary activities beyond the classroom (Safitri et al., 2025). Various tools, such as Memrise, Duolingo, and Quizlet, as well as AI applications like Gemini and ChatGPT, have been increasingly used in language learning. Among these, Quizlet was selected because of its interactive vocabulary practice features, while ChatGPT was chosen for its ability to quickly generate vocabulary definitions, examples, and translations (Shukhratovna & O'mirbaevna, 2025). One widely used tool is Quizlet, which allows learners to practice vocabulary through flashcards and interactive activities (Bueno-Alastuey & Nemeth, 2022).

However, learners have to create study sets manually when using Quizlet's free version, which is time-consuming and less reliable, while many automated functions are restricted to paid accounts (Nguyen & Le, 2023; Pan et al., 2023). In contrast, artificial intelligence tools such as ChatGPT can automatically generate vocabulary-related content, including definitions, contextual examples, and translations (Ariani et al., 2026; Enamorado, 2025). Nevertheless, using ChatGPT alone may not always provide the interactive learning experience offered by dedicated vocabulary-learning platforms (Qu & Wu, 2024). Therefore, integrating these tools may combine their strengths to support vocabulary learning more effectively.

Several scholars have suggested combining ChatGPT with Quizlet to improve vocabulary learning efficiency by allowing learners to generate vocabulary content and practice it through digital flashcards (Le & Bui, 2026; Ifadloh, 2025). However, research on the combination of ChatGPT and Quizlet for vocabulary acquisition is quite limited, particularly in the Vietnamese EFL context and in listening classes. Some research has examined these tools separately (Nguyen et al., 2022; Vo & Nguyen, 2024), while others have focused on different language contexts (Juwita & Hendra, 2025). Empirical research investigating the integration of both tools for English vocabulary learning in Vietnam, particularly in listening classes, remains limited.

To address this gap, the present study explores English-major students' perceptions of integrating Quizlet (free version) and ChatGPT (free version) as complementary tools for vocabulary learning in listening courses. Without sufficient research on this integration, teachers and learners may continue relying on less engaging vocabulary-learning approaches that could limit students' listening comprehension and vocabulary retention. Investigating students' perceptions is essential because perceptions are closely related to learners' attitudes, engagement, and willingness to use educational technologies in learning activities. Without understanding students' perceptions, the potential benefits and practical challenges of integrating these tools may remain unclear, limiting their effective implementation in language classrooms. Specifically, this study seeks to answer the following question

“How do English-major students perceive the usefulness of the integration of ChatGPT and Quizlet into their vocabulary learning in the context of listening classes?”

LITERATURE REVIEW

This chapter presents the theories and previous studies related to vocabulary learning and the use of digital tools in English language education. It first introduces the concept of vocabulary and its main aspects in relation to listening comprehension. The chapter then reviews previous studies on the use of Quizlet in vocabulary learning, followed by research on ChatGPT and AI-assisted language learning. Finally, the chapter identifies the research gap, which provides the basis for the present study on integrating Quizlet and ChatGPT to support vocabulary learning in listening classes.

Vocabulary in language learning

The term “vocabulary” has been understood in different ways. Vocabulary is generally defined as the knowledge of word meanings that enables learners to comprehend and produce language (Hiebert & Kamil, 2005). Meanwhile, Manda et al. (2022) describe it as a set of words used to form sentences and convey meaning. Ur (2024) states that vocabulary can consist of both single-word items and multi-word expressions with specific meanings. Alqahtani (2015) and Ratnawati et al. (2021) refer to vocabulary as the total number of words an individual needs to express ideas effectively. Meanwhile, Lutfiyah et al. (2022) and Richards and Renandya (2010) viewed vocabulary as a collection of words with meanings used across the four language skills. Since the focus of this study is on vocabulary in academic listening classes for university students, the term refers to the knowledge of words and their meanings that support comprehension, particularly in academic listening contexts.

Vocabulary can be categorized into several aspects. Pan and Xu (2011) suggested that vocabulary includes meaning, grammar, connotations, pragmatic rules, and socio-cultural messages, while Nation (2013) classified vocabulary into three main aspects: form, meaning, and use. The first aspect of Nation's (2013) categorization, knowledge of form, includes understanding a word's spoken and written forms. In other words, form can include pronunciation and spelling. The second aspect, meaning, refers to the relationships among words, concepts, and their associations with other words. The last aspect, which is use, consists of knowledge about the grammatical functions of a word, its collocations, and constraints on use in different contexts.

Similarly, Ur (2024) emphasized form and meaning while also highlighting grammar, collocation, connotation, and context. In the listening comprehension context of this study, four aspects are examined: pronunciation, meaning, synonyms, and part of speech. Pronunciation refers to the spoken form of a word, meaning relates to the concept a word represents, and part of speech refers to the grammatical role of a word in a sentence (Nation, 2013; Ur, 2024). This study particularly focuses on content words because they carry key information that helps learners understand spoken messages and overall listening texts more effectively. In addition, synonyms are defined as words with similar meanings that may differ in usage, connotation, or context (Chaokongjakra, 2023; Mirvositovna & Dilafruz, 2023).

Quizlet and its contribution to vocabulary learning

Numerous studies have demonstrated Quizlet's impact in supporting vocabulary development. Chaikovska and Zbaravska (2020) reported that Ukrainian undergraduates who used Quizlet not only performed better in post-tests but also experienced higher levels of enjoyment and autonomy. Similarly, Shcherbakova and Baranenko (2024) described Quizlet as a multimodal flashcard platform that integrates audio, images, and game-based activities, allowing both teachers and learners to create vocabulary sets and engage in interactive practice. Quizlet also provides various learning modes, such as Flashcards, Learn, Write, Test, and game-based activities like Match and Quizlet Live, which facilitate repeated exposure, active recall, pronunciation practice, and contextualized vocabulary learning. These features help enhance motivation and support vocabulary retention through repeated exposure.

In the Vietnamese context, [Ho and Kawaguchi \(2021\)](#) found that high school students who used Quizlet performed better than those who learned with traditional flashcards. This is because Quizlet offers motivational features, which may encourage learners to participate more on vocabulary learning. In addition to presenting word meanings, the platform also allows students to encounter vocabulary through different forms of input, which may support their understanding and retention of new words. Similar findings were reported by [Nguyen and Le \(2022\)](#) in a study with university students. They noted that the improvement in vocabulary learning was mainly related to repeated exposure to target words and opportunities for self-regulated practice.

In addition to its effectiveness, Quizlet has been shown to promote positive learner attitudes. [Tanjung and Rafida \(2025\)](#) reported that Indonesian students found Quizlet easy and comfortable to use, although some technical issues were noted. Other studies indicated that learners perceived the platform as flexible, convenient, and supportive of autonomous learning ([Kholis & Nadhif, 2023](#)). For instance, [Nguyen et al. \(2022\)](#) mentioned that Vietnamese learners appreciated Quizlet's gamified features and learner autonomy, despite minor distractions such as advertisements. Similarly, [Tran and Nguyen \(2023\)](#) highlighted that learners valued the ability to study anytime, anywhere, across different devices, which supports independent vocabulary learning. [Nguyen and Javosky \(2025\)](#) also reported generally positive attitudes toward Quizlet and its role in improving vocabulary retention.

Despite these advantages, several limitations remain. Creating vocabulary sets manually can be time-consuming, which may reduce learners' willingness to use the tool ([Juwita & Hendra, 2025](#)). While some studies suggest that creating flashcards can improve long-term retention, many learners still prefer pre-made sets ([Pan et al., 2023](#)). In addition, [Nguyen and Le \(2023\)](#) noted that many advanced features, such as ad-free access and offline study, are restricted to paid versions. These constraints indicate the importance of integrating Quizlet with tools such as ChatGPT, which can efficiently generate vocabulary definitions, examples, and practice tasks to encourage a more efficient and meaningful learning experience.

ChatGPT and its contribution to vocabulary learning

The implementation of ChatGPT into vocabulary instruction has attracted increasing attention in recent studies. [Mugableh \(2024\)](#) found that vocabulary exercises generated by ChatGPT significantly improved learners' vocabulary performance compared to conventional teaching methods. Similarly, [Aldowsari and Aljebreen \(2024\)](#) reported that students appreciated the wide range of practice modes provided by ChatGPT, such as sentence creation, quizzes, and free interaction, which helped maintain their engagement. In the Vietnamese context, [Vo and Nguyen \(2024\)](#) found that English-major undergraduates perceived ChatGPT as user-friendly and helpful in supporting independent learning. Several studies have also highlighted ChatGPT's potential to promote deeper vocabulary learning. This means that learners not only acquire a larger number of words but also develop a deeper understanding of each word through learning its multiple meanings, synonyms, and contextual usage.

Learners can use ChatGPT to access definitions, generate contextualized examples, and create dialogues, which support more meaningful processing of vocabulary ([Tran, 2024](#)). In addition, ChatGPT can provide a wide range of task types, including multiple-choice, fill-in-the-blank, and interactive conversation tasks, catering to different learning styles and encouraging active language use ([Abas et al., 2023; Eljack et al., 2025](#)). It is also capable of generating level-appropriate materials, expanding vocabulary knowledge, and personalizing learning activities based on individual needs ([Eljack et al., 2025](#)). Learners generally report positive attitudes toward learning vocabulary with the support of ChatGPT. It is considered a convenient tool for checking meanings, exploring usage, generating examples, and practicing vocabulary beyond the classroom ([Luu & Bui, 2025](#)). However, its effectiveness largely depends on appropriate guidance and scaffolding, as teacher support remains important to ensure meaningful use ([Abdelhalim & Alsehibany, 2025](#)).

Despite its obvious benefits, ChatGPT has some limitations in terms of interaction and gamification. It does not include features like games, rewards, or spaced repetition, which are important for maintaining motivation and long-term vocabulary retention ([Yu, 2026](#)). Research also

shows that although ChatGPT supports practice and feedback, it may not always create strong engagement or positive learning experiences for learners (Khurma et al., 2024). Given these considerations, recent research has started examining the integration of ChatGPT and Quizlet to combine their strengths and improve vocabulary learning outcomes.

The combination of Quizlet and ChatGPT in vocabulary learning

Although Quizlet and ChatGPT have been widely studied as separate tools, their combined use in vocabulary learning remains limited. Ifadloh (2025) suggested that these tools complement each other well. To be specific, Quizlet was described as providing structured practice through spaced repetition and various gamified study modes, while ChatGPT was reported to support vocabulary learning by generating example sentences, offering synonyms, and creating personalized learning activities tailored to learners' needs.

Juwita and Hendra (2025) conducted their study with students in a German-language education programme rather than with English majors. Although their study also used ChatGPT to generate vocabulary tables with features such as plural forms, verb tenses, and contextualized examples for direct use in Quizlet, differences between German and English restrict the applicability of these findings to English vocabulary learning.

In addition, Le and Bui (2026) found that integrating ChatGPT with Quizlet enhanced vocabulary learning in reading classes by providing learners with repeated practice and Quizlet's interactive features, supported by contextualized definitions and examples generated by ChatGPT. Their findings also emphasized the role of this combination in promoting learner autonomy and personalized learning in EFL contexts. However, this study was conducted in reading classes with the context for ChatGPT prompts based on the reading passage, not in listening classes.

Therefore, further research is needed to examine English learners' perceptions of using ChatGPT for vocabulary learning and its potential role in supporting language learning activities, particularly within specific skills such as listening. In addition, there is still a lack of studies investigating how Quizlet and ChatGPT work together to support vocabulary learning among English majors, especially in listening contexts. This gap is what the present study aims to address.

METHODOLOGY

Research design

Research design is chosen based on the nature of the research problem and the type of data needed to answer it. In this study, exploring students' perceptions of the integration of Quizlet and ChatGPT for vocabulary learning required both an overview of general trends and a deeper understanding of the reasons behind those views. Using only quantitative data might show overall patterns, but it would not fully explain students' actual experiences. On the other hand, qualitative data alone could provide deeper insights but might not reflect the broader tendencies across participants. Based on these reasons, this study used an explanatory sequential mixed-methods approach to examine learners' perceptions of integrating Quizlet and ChatGPT into vocabulary learning. Quantitative data were first collected through questionnaires to identify general trends, followed by semi-structured interviews to further explain students' perceptions and experiences (Creswell & Creswell, 2022).

A 10-item questionnaire using a five-point Likert scale was administered by the researcher to English-major students participating in the study to examine their perceived usefulness. Subsequently, semi-structured focus group interviews were conducted with seven volunteers who indicated their willingness to participate in the interview section of the questionnaire to further explore their experiences and provide explanations for the quantitative findings (Fetters et al., 2013). The interview data were used to clarify the survey results, offering deeper insights into learners' perceptions of the usefulness of the two tools.

Participants

The sample comprised 60 first-year English majors (aged 18–19), including 28 males and 32 females, all enrolled in a university-level Listening 1 note-taking course (Table 1). This course was selected for its focus on listening comprehension, which requires real-time vocabulary processing. English majors were chosen to ensure a relatively homogeneous group with consistent exposure to English which helped reduce variations in language background and learning experience that might affect students' perceptions of the integration model. This provides a suitable context for examining the integration of ChatGPT and Quizlet and offers both pedagogical and research implications for future research with learners of different proficiency levels.

Students used *Q: Skills for Success 4: Listening and Speaking* (3rd ed.) by Freire and Jones (2019), which incorporates vocabulary activities in the pre-listening stage. In this study, the textbook vocabulary tasks were adapted into digital learning activities using Quizlet and ChatGPT. Instead of completing vocabulary exercises directly in the textbook, students used ChatGPT to generate relevant meanings, examples, and related vocabulary based on the lesson content, and then practiced these items through Quizlet activities and live games to reinforce vocabulary learning in context. Participants were generally at B1-B2CEFR levels (approximately IELTS 5.5+), with 49 students achieving IELTS 5.5, and the others having higher band scores. Their proficiency allowed them to use ChatGPT for prompt generation in English and Quizlet for vocabulary practice.

Table 1

Participants' Demographic Profile

Demographics	Description	Number
Age	18	55
	19	5
Level of proficiency	IELTS 5.5	49
	IELTS 6.0	4
	IELTS 6.5	4
	IELTS 7.0	3
Academic year	First year	60
Gender	Male	28
	Female	32

Data collection instruments

Quantitative phase

The structured questionnaire consisted of three main sections. The first section asked for participants' demographic information (gender and CEFR-based proficiency) and confirmed participants' prior use of Quizlet and ChatGPT to ensure relevant experience. The main section measured perceived usefulness (PU) with 10 items on a five-point Likert scale. Items were adapted from previous studies (Hsu & Chao, 2024; Shaengchart, 2023), focusing on PU aspects to ensure validity and contextual relevance. Some items were revised to reflect the combined use of Quizlet and ChatGPT, while two items were self-developed to address the process of transferring vocabulary from ChatGPT to Quizlet. This is because existing instruments did not adequately address the process of transferring AI-generated vocabulary content from ChatGPT to Quizlet, which is a key feature of the integration model investigated in this study. The last section calls for volunteers for the subsequent interviews. The questionnaire was delivered via Google Forms because it is accessible on any device, easy to use with simple steps, and can automatically organize data for analysis (Brown & Hocutt, 2015; Sazonova et al., 2018).

Qualitative phase

Semi-structured focus group interviews were undertaken with seven volunteer participants to gain deeper insights into their perceptions of the usefulness of integrating ChatGPT and Quizlet for vocabulary learning in listening classes. Focus groups were chosen as they encourage interaction and discussion, allowing participants to add more to each other's answers and offer more detailed data

(Cohen et al., 2018). The language used in the interviews was Vietnamese to ensure clarity and allow participants to express their ideas more effectively, thereby enhancing data quality (Elhami & Khoshnevisan, 2022). All sessions were held online via Zoom for convenience and were audio-recorded with participants' consent and agreement to enable accurate transcription and reliable analysis (Rutakumwa et al., 2019). Seven interviewees were divided into two focus group interview sessions to facilitate smoother interaction and allow participants more opportunities to share their experiences and opinions. Each interview took about 30-45 minutes and followed a set of guiding questions, with flexibility to probe further through follow-up questions when necessary. The interview data were then translated into English for analysis.

Procedure

A pilot study involving 25 participants was carried out to ensure the validity and reliability of the questionnaire (Creswell & Creswell, 2022). Based on the pilot results and participants' feedback, some questionnaire items were revised to improve clarity and wording before the main data collection. The whole study lasted 15 weeks and followed an explanatory sequential mixed-methods design (Creswell & Clark, 2017). In the first phase, participants received training on using these two tools for vocabulary learning. They then engaged in 14 weeks of self-directed practice, during which they were required to create vocabulary sets weekly and submit links to their self-created sets for monitoring. After finishing a 15-week course, participants were asked to complete the questionnaire via Google Forms, which included a consent form. In the second phase, semi-structured focus group interviews were conducted via Zoom with seven volunteers, each lasting approximately 30-45 minutes. Interviews were conducted in Vietnamese, audio-recorded with consent, and transcribed into English before analysis.

Data analysis

Quantitative data were analyzed using SPSS Version 26, focusing on the perceived usefulness (PU) construct with 10 items. Frequencies and percentages were used to summarize students' responses. The internal consistency of the scale was assessed using Cronbach's alpha. Qualitative data from the interviews were analyzed thematically using Lichtman's (2014) three Cs strategy: coding, categorizing, and concept development. Initial coding was conducted deductively, based on the PU construct and its four vocabulary aspects, specifically pronunciation, meaning, synonyms, and part of speech, followed by inductive coding to identify emerging themes and patterns in participants' responses.

Reliability

A pilot study with 25 students who have experience using this combination was conducted to assess internal consistency. Cronbach's alpha value was 0.871, exceeding the acceptable threshold of 0.70. In the main study, similar results were obtained, with an alpha value of 0.917, indicating acceptable to excellent reliability (Rahman et al., 2022). These consistent results confirm that the questionnaire reliably measured the relevant constructs.

Validity

Face and content validity were established through expert review. The questionnaire and interview items were evaluated by a specialist in comparative linguistics and a TESOL lecturer to ensure clarity, relevance, and alignment with the study objectives and TAM constructs (adapted from Hsu & Chao, 2024), specifically perceived ease of use, perceived usefulness, and behavioral intention to use. Minor revisions were made to improve wording and contextual appropriateness. To further strengthen validity, the questionnaire items were adapted from previous studies and adjusted to fit the research context. For qualitative data, interviews were conducted in Vietnamese, transcribed using TurboScribe, and translated into English with the support of ChatGPT. The translations were then reviewed by an expert, and member checking was carried out with the participants to confirm the accuracy and meaning of the translated responses. These steps helped strengthen the credibility and trustworthiness of the findings.

FINDINGS

This chapter presents the findings of the study on English-major students' perceptions of integrating ChatGPT-supported Quizlet into vocabulary learning in listening classes. The findings are organized according to the research question and include both quantitative and qualitative results. Quantitative data from the questionnaire are presented first to identify general trends in students' perceptions, followed by qualitative findings from the semi-structured focus group interviews to provide deeper explanations and insights into the quantitative results.

Quantitative findings

Table 2

The Percentage of Perceived Usefulness of Implementing ChatGPT-Supported Quizlet for Vocabulary Learning

Statement	Percentage (%) (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree)				
	1	2	3	4	5
PU1. I can identify relevant meanings of new vocabulary words when I use ChatGPT based on the vocabulary exercises in the textbook.	0	2 (3.3%)	7 (11.7%)	20 (33.3%)	31 (51.7%)
PU2. I can identify relevant parts of speech of new vocabulary words when I use ChatGPT based on the vocabulary exercises in the textbook.	0	2 (3.3%)	10 (16.7%)	21 (35%)	27 (45%)
PU3. I can identify relevant synonyms of new vocabulary words when I use ChatGPT based on the vocabulary exercises in the textbook.	0	0	11 (18.3%)	22 (36.7%)	27 (45%)
PU4. I can create relevant fill-in-the-blank sentences using new vocabulary words when I use ChatGPT based on their meanings and parts of speech.	0	2 (3.3%)	11 (18.3%)	20 (33.3%)	27 (45%)
PU5. I can remember the meanings of new vocabulary words more effectively when I practice them on Quizlet with ChatGPT's support.	0	0	9 (15%)	25 (41.7%)	26 (43.3%)
PU6. I can pronounce new vocabulary words more accurately when I practice them on Quizlet with ChatGPT's support.	0	0	18 (30%)	21 (35%)	21 (35%)
PU7. I can remember the parts of speech of new vocabulary words when I practice them on Quizlet with ChatGPT's support.	0	0	14 (23.3%)	22 (36.7%)	24 (40%)
PU8. I can remember synonyms of new vocabulary words when I practice them on Quizlet with ChatGPT's support.	0	1 (1.7%)	15 (25%)	25 (41.7%)	19 (31.7%)
PU9. I can improve my ability to use new vocabulary words in context when I practice them on Quizlet with ChatGPT's support.	0	0	14 (23.3%)	20 (33.3%)	26 (43.3%)
PU10. Using Quizlet with ChatGPT's support fits my learning style	0	0	14 (23.3%)	23 (38.3%)	23 (38.3%)

Table 2 presents the percentage distribution of students' responses regarding the perceived usefulness of implementing ChatGPT-supported Quizlet for vocabulary learning. The results show that students had positive views of the usefulness of combining these tools for vocabulary learning. For all ten items, most answers were in the "agree" and "strongly agree" categories, which means students generally found the combined use of these tools beneficial.

In terms of ChatGPT, a large proportion of students (84.9%) agreed or strongly agreed in PU1 that they could identify the meanings of new vocabulary, with over half (51.7%) selecting "strongly agree." Similarly, in PU2, 80% of participants reported that ChatGPT helped them identify parts of speech, indicating its effectiveness in supporting fundamental vocabulary knowledge. Similar results can be seen in PU3 and PU4, where over 80% of students agreed that ChatGPT helped them learn synonyms and create sentences, which are important for better vocabulary understanding.

Regarding the role of ChatGPT-supported Quizlet, the results highlight its contribution to memory and practice. PU5 showed that 85% of students reported remembering word meanings more effectively when using Quizlet with ChatGPT support, the highest level of agreement across all items. In PU6 and PU7, most students (70% and 76.7%, respectively) agreed that practicing on Quizlet helped them improve their pronunciation and better understand parts of speech. PU8 and PU9 showed that most students (73.3% and 76.3%) agreed that they could learn synonyms and use vocabulary in context through practice on Quizlet. In particular, PU9 recorded a relatively high proportion of “strongly agree” responses (43.3%), suggesting that the contextual use of vocabulary was perceived as one of the most significant benefits. Finally, PU10 showed that 76.6% of students agreed or strongly agreed that using Quizlet with ChatGPT matches their learning style, meaning the tools are suitable for learners' preferences.

Qualitative findings

All participants agreed that combining ChatGPT and Quizlet is useful for vocabulary learning. Most participants reported that ChatGPT could provide accurate, level-appropriate definitions, parts-of-speech information, and fill-in-the-blank examples that closely matched the vocabulary in their listening textbook. For reporting purposes, interviewees were coded as Interviewee 1 (I1), Interviewee 2 (I2), and so forth to ensure confidentiality and anonymity. I1 explained, “*ChatGPT gives meanings that match exactly with the vocabulary in the textbook exercises, which helps me learn much faster.*” Similarly, I2 emphasized the benefit of contextualization, stating, “*Instead of general dictionary definitions, it provides immediate definitions or explanations that fit the context of the lesson and my level of proficiency, so the meanings are easier to understand and remember.*” I3 and I4 also noted that ChatGPT helped them avoid confusion when words had multiple meanings, as it could generate definitions tailored to the given context. I4 added, “*Before, when I used a paper or even an online dictionary or searched the meanings on Google, there appeared many different meanings to choose from. This confused and reduced my motivation, as even though I spent much time on it, I was not sure if you chose the correct meaning or not, but ChatGPT gives the correct meanings at once when I gave a specific prompt mentioning my needs, my English level, and sentences including the words for ChatGPT to understand the context of the words.*”

In addition, some participants highlighted that ChatGPT could provide pronunciation in the International Phonetic Alphabet (IPA), which supported their understanding of how words are pronounced. I7 explained, “*ChatGPT shows the IPA, so I can see clearly how the word is pronounced, not just read it.*” Similarly, I2 mentioned, “*It's helpful because I can learn both meaning and pronunciation at the same time. With IPA, I can have the awareness of differences in pronouncing the words, such as short or long vowels.*” However, not all participants focused on this feature. Some showed limited awareness of IPA's importance. They preferred listening to the audio and repeating rather than focusing on phonetic symbols. This suggests that IPA's usefulness depends on individual learning preferences.

Several participants highlighted that the effectiveness of ChatGPT depended on how they constructed their prompts. I2 and I4 mentioned that in their initial attempts, the outputs were sometimes too general or not fully relevant due to a lack of context. However, after guidance and practice, they learned to provide clearer prompts, which led to more accurate results. I6 noted, “*When I include the sentence including the words, the meaning becomes much more precise.*” This indicates that students gradually developed more effective strategies for using AI tools during the 15-week learning process.

In addition to definitions, participants reported that ChatGPT allowed them to explore vocabulary more deeply. Many students mentioned that when they were already familiar with basic meanings, they used ChatGPT to generate synonyms or additional examples. I5 shared, “*If I already know the meaning, I ask for synonyms or more examples to understand the word better. For me, having more knowledge about synonyms benefits me a lot in solving the comprehension questions in this level or in summarizing the main ideas of the listening passage as required.*” Similarly, I3 added, “*I can choose what I want to learn, like more examples or different contexts. When I get bored with the topic of the lesson, I can ask ChatGPT to give me examples in other interesting topics.*” This flexibility enabled learners to personalize their vocabulary learning and engage with words beyond surface-level understanding.

However, some participants also reported challenges related to using prompts effectively. They noted that the quality of ChatGPT's responses depended heavily on how clearly they asked their questions. For example, I4 shared, *"Sometimes I just write some words or not detailed prompts, and the answer is too general or not very helpful."* Similarly, I6 mentioned, *"When my prompt is not clear, the examples are not what I expect."* This proves that without sufficient skills in giving clear and specific prompts, learners may not fully benefit from ChatGPT.

Quizlet sets created from the import of ChatGPT-generated content also played a crucial role in reinforcing vocabulary knowledge. Participants consistently reported that its multiple study modes supported repetition and long-term retention. I3 stated, *"Seeing the meaning and part of speech many times in flashcards and different modes helps me remember vocabulary longer."* I1 and I2 agreed that switching between modes, such as flashcards, learn, and test, helped them stay interested while practicing regularly. In addition, gamified features such as Match, Live, Block, and Blast were frequently mentioned as motivating factors. I5 commented, *"I like the Block and Blast modes the most because it feels like playing a game, not just studying. After finishing one task, I am motivated to try another task in a similar mode or a different one. As a result, the meaning and the spelling are automatically recalled in my mind."* Similarly, I4 noted, *"When I play games on Quizlet, I don't feel stressed, but I still learn a lot of vocabulary."*

Another important aspect highlighted by participants was the role of repetition and habit formation. I1, I2, and I3 mentioned that features such as streaks and reminders encouraged them to practice regularly; these features can be found on the main page of the tool. I2 explained, *"If I lose my streak, I feel like I need to come back, so it makes me study every day."* This shows that Quizlet not only supports vocabulary retention but also promotes consistent learning behavior.

Importantly, participants linked these benefits to the structured procedure of the study. During the 15 weeks, they were first guided on how to use ChatGPT and Quizlet effectively and then required to create vocabulary sets weekly and submit the links. This process helped them gradually become more familiar with both tools and develop effective learning strategies. I6 shared, *"At first, I didn't know how to use it well, but after creating sets every week, I became faster and more confident."* Participants also appreciated the flexibility in designing their sets, as they could choose to focus on definitions, synonyms, or fill-in-the-blank exercises depending on their needs (I1, I3, I4, I6, I7).

Nonetheless, some participants also expressed regret that they had not fully explored other features that could have made learning more engaging and interactive. For example, I3 noted, *"I mainly used it to create vocabulary sets, but I didn't try other functions like asking follow-up questions."* Similarly, I5 mentioned, *"I think it could be more interesting if I used it like a conversation tool, not just for making word lists."* Additionally, some participants admitted they did not use Quizlet's interactive features, such as Quizlet Live or Blast. For instance, I6 shared, *"I only used the basic modes like flashcards, I didn't try Quizlet Live or Blast, so it was less fun."*

DISCUSSION

ChatGPT features facilitation

The findings show positive perceptions from students about the role of ChatGPT in supporting vocabulary input, especially in generating context-based meanings, accurate parts of speech, synonyms, examples, or fill-in-the-blank items for practice, and IPA. This is also in line with research results of [Luu](#) and [Bui \(2025\)](#). Both quantitative and qualitative results show that students found ChatGPT particularly helpful in identifying relevant meanings, which is often a challenge when using traditional dictionaries. Quantitative findings revealed high levels of agreement on items related to understanding vocabulary meaning and contextual usage, while interview data further explained that students could more easily understand vocabulary because the generated meanings matched the listening topics and situations in their textbook.

Several interviewees also stated that ChatGPT reduced confusion caused by multiple dictionary meanings by providing context-specific explanations. This supports previous studies by [Luu](#) and [Bui \(2025\)](#), who found that ChatGPT can generate contextually appropriate explanations and grammatically correct information. In this study, students emphasized that ChatGPT's effectiveness

depended on the quality of their prompts, especially the inclusion of sample sentences or listening transcripts. For example, some students explained that when they provided the listening transcript or lesson topic, ChatGPT generated more suitable meanings, examples, and synonyms, which helped them better understand how vocabulary was used in context. This suggests that while AI tools are powerful, learners still need guidance and practice to use them effectively. Therefore, the usefulness of ChatGPT is not only determined by its features but also by how well students are trained to interact with it.

Another important finding is the role of personalization and immediate response in enhancing vocabulary learning. Students (I3, I4, I6) reported that ChatGPT allowed them to generate examples tailored to their interests, level, and preferred topics, making learning more engaging and meaningful. Moreover, all interviewees noted that ChatGPT's immediate answers helped them learn much faster. This aligns with the findings of [Abas et al. \(2023\)](#) and [Eljack et al. \(2025\)](#), who highlighted that personalized learning content can improve learner motivation and retention. The quantitative data also showed positive responses toward the convenience and usefulness of ChatGPT-generated vocabulary content, while the interviews clarified that students appreciated receiving immediate explanations instead of spending time searching through dictionaries or online sources. Some students mentioned that personalized examples related to their hobbies or familiar topics helped them remember vocabulary more easily and maintain their interest during learning activities. In this study, students clearly preferred ChatGPT-generated examples over traditional dictionary examples because they were easier to understand and remember. This suggests that personalization is a key factor contributing to perceived usefulness.

Quizlet features facilitation

Regarding Quizlet, the findings indicated that its interactive and repetitive learning features played an important role in vocabulary practice and retention. Quantitative results showed strong agreement on items related to remembering vocabulary meanings, pronunciation, parts of speech, synonyms, and contextual usage. Qualitative findings further revealed that features such as flashcards, learn mode, test mode, and game-based activities like Match and Quizlet Live helped students repeatedly encounter vocabulary in enjoyable, interactive ways, thereby supporting vocabulary retention without causing boredom.

Gamified activities also appeared to increase students' engagement and participation. Some interviewees stated that Quizlet Live encouraged them to review vocabulary more actively because of its competitive and collaborative nature. This finding supports [Chaikovska and Zbaravska \(2020\)](#) and [Ho and Kawaguchi \(2021\)](#), who found that gamification can enhance motivation and learning outcomes. In addition, students appreciated Quizlet's flexibility and customization features, as they could focus on specific vocabulary aspects based on their learning needs.

Despite these advantages, some limitations of the free version of Quizlet were noted, particularly advertisements and restricted access to certain features ([Nguyen & Le, 2023](#); [Pan et al., 2023](#)). Nevertheless, most students still considered the platform useful for vocabulary learning and practice.

The integration of ChatGPT and Quizlet

Regarding the next step, which is the focus of the study, Quizlet, with ChatGPT's support, played a crucial role in vocabulary practice and retention. The quantitative results showed strong agreement on items related to memory of meaning, parts of speech, pronunciation, synonyms, and vocabulary contextual usage, while the qualitative findings explained how these benefits were achieved. Students reported that features such as flashcards, test mode, and gamified activities (e.g., Match, Live, Block, and Blast) helped them encounter vocabulary multiple times in an enjoyable way.

Interviewees explained that repeated exposure through different Quizlet activities helped them gradually remember vocabulary meanings, pronunciation, and usage without feeling bored. Some students also noted that competitive games such as Quizlet Live increased their participation and

encouraged them to review vocabulary more actively before class activities. These findings support previous research by [Chaikovska and Zbaravska \(2020\)](#) and [Ho and Kawaguchi \(2021\)](#), which showed that gamification can increase motivation and improve learning outcomes. In this study, students also mentioned that features like test customization allowed them to control their learning process, which further enhanced their engagement and motivation. For instance, several students stated that they could focus on specific vocabulary aspects, such as pronunciation or synonyms, depending on their weaknesses, making the learning process more flexible and personalized.

The integration of ChatGPT and Quizlet appears to create a complementary learning system. ChatGPT supports the input stage by generating relevant vocabulary features, contextualized examples, and practice tasks tailored to learners' needs, while Quizlet supports the practice stage through repetition and interactive learning modes. This finding is consistent with previous studies on Quizlet, which highlight its role in promoting repeated exposure and vocabulary retention through multimodal and game-based features ([Chaikovska & Zbaravska, 2020](#); [Ho & Kawaguchi, 2021](#)). At the same time, it aligns with research on ChatGPT, which emphasizes its ability to generate contextualized, personalized vocabulary that supports deeper learning ([Abas et al., 2023](#); [Eljack et al., 2025](#)). By combining these two tools, learners can move beyond simple memorization to a deeper understanding and long-term retention. This supports the argument that integrating multiple technologies can provide greater learning benefits than using a single tool ([Ifadloh, 2025](#); [Juwita & Hendra, 2025](#)).

Interestingly, some students reported that they applied this combination to other skills, especially reading. This finding is in line with previous studies suggesting that ChatGPT can support various aspects of language learning beyond vocabulary, including reading comprehension and contextual understanding ([Le & Bui, 2026](#); [Tran, 2024](#)). This suggests that the perceived usefulness of ChatGPT is not limited to vocabulary learning in listening but can be extended to other language skills, showing its flexible and transferable role in language learning contexts.

However, several minor limitations were also noted. Some students mentioned that the effectiveness of ChatGPT depended on their ability to write clear prompts, which supports the findings of [Abdelhalim and Alsehibany \(2025\)](#), who emphasized the importance of guidance and scaffolding when using AI tools. Interview data showed that students who provided short or unclear prompts sometimes received irrelevant or overly general answers, which affected the quality of vocabulary explanations and examples. This indicates that learners may require initial training on effective prompting strategies to maximize the benefits of AI-assisted learning. In addition, the limitation of the free version of Quizlet, such as restricted access to certain features, is also consistent with previous research ([Nguyen & Le, 2023](#); [Pan et al., 2023](#)). Some participants also explained that advertisements and locked features occasionally interrupted their learning experience; however, they still considered the free version sufficiently useful for vocabulary practice. Despite these challenges, students still considered the overall experience useful and acceptable, suggesting that the benefits of the tools outweigh their limitations.

CONCLUSION

This study explored English-major students' perceptions of the usefulness of integrating Quizlet and ChatGPT for vocabulary learning in listening classes. Findings from both quantitative and qualitative data consistently showed that students viewed the combination of these tools as beneficial. ChatGPT supported vocabulary input by providing context-based meanings, parts of speech, and personalized examples, while Quizlet facilitated repeated practice through interactive learning modes. Together, these tools helped learners better understand, use, and retain vocabulary, while also increasing engagement, motivation, and self-directed learning. These findings suggest some implications. Theoretically, the findings contribute to the growing body of research on AI-assisted vocabulary learning by suggesting that combining ChatGPT with Quizlet can support both contextualized vocabulary understanding and repeated practice. Practically, teachers can integrate ChatGPT into vocabulary instruction to help learners generate meanings and examples in context while providing

guidance on effective prompt writing. Designing tasks that require students to create and review their own vocabulary sets may also encourage more consistent learning habits, while institutions can incorporate AI-supported tools to promote digital literacy and modernize language-learning practices. However, some limitations should be noted. The study involved a relatively small group of first-year English majors at a single university, which may limit the generalizability of the findings. In addition, the study focused only on students' perceptions rather than actual learning outcomes and was limited to listening classes. Future research could include larger and more diverse samples, examine additional language skills, and employ experimental designs with pre-test and post-test measures to provide clearer evidence of the effectiveness of integrating Quizlet and ChatGPT into vocabulary acquisition and retention. Further studies could also explore how different prompt strategies influence the quality of ChatGPT outputs and learning outcomes.

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CONFLICT OF INTEREST STATEMENT:

The authors declare that there are no financial, commercial, institutional, or personal relationships that could be construed as potential conflicts of interest in relation to the research, authorship, and publication of this article. The authors confirm that this study was conducted objectively and independently, and that the findings and conclusions presented in this paper were not influenced by any external interests or organizations.

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