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Exploring Saudi EFL Learners' Perceptions of ChatGPT for Vocabulary Learning: A TAM-Based Descriptive Study

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Abstract

This study investigated Saudi foreign language learners' (EFL) perceptions of using ChatGPT for vocabulary learning through the Technology Acceptance Model (TAM) to answer the question: What are Saudi EFL learners' perceptions of using ChatGPT as a vocabulary learning tool? It aimed to explore their perceptions according to perceived usefulness (PU) and perceived ease of use (PEOU). Vocabulary serves as the critical initial step in learning a second language and facilitating the mastery of language skills. It allows language speakers to communicate effectively. Thus, integrating an effective artificial intelligence (AI) tool in language learning contexts is crucial. Consequently, it is important to discover whether participants believe that using ChatGPT is easy and beneficial as a vocabulary learning resource. The employed method is a descriptive survey design including qualitative insights from 134 second-level students (87 females, 47 males; 19–21 years) at Taibah University who completed a bilingual questionnaire measuring PU and PEOU, along with two open-ended items. Descriptive statistics showed generally favorable perceptions of ChatGPT's usefulness (M = 3.61, SD = 0.53) and ease of use (M = 3.85, SD = 0.63). The findings showed that learners favored ChatGPT's synonym and antonym generation, contextualized examples, personalization, and time and effort savings over traditional dictionaries. However, they revealed some issues like the complexity of some tasks, demotivation and boredom, and limited human interaction and technical problems. Hence, using ChatGPT as an assistive learning tool, besides conducting further research emphasizing diversity and variety is recommended.

Keywords: Artificial intelligence, ChatGPT, English as a foreign language, language learning, perceived ease of use, perceived usefulness, technology acceptance model, vocabulary

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Introduction

English has a global impact due to being used in various disciplines, including technology and academia. It is the lingua franca that enables communication among speakers of different languages. The dominance of English has significantly affected the field of Education. Consequently, it has gone through major changes. The teaching process has shifted from being a conventional teacher-centered approach to a student-centered approach that tends to make learners engaged, active, and autonomous (Kucuk, 2024; Qasem et al., 2023). Hence, technology integration is essential in the instructional environment, as it helps teachers encourage students' engagement and participation in the language classroom (Kucuk, 2024; Pavlenko & Syzenko, 2024; Qasem et al., 2023).

Consequently, the emergence and rapid development of AI tools significantly contributed to supporting the changes in the field of education. They have been vital and widely used in a relatively short period of time due to their undeniable impact, particularly in educational environments. According to Pavlenko and Syzenko (2024), "ChatGPT, an example of such AI, has gained instant popularity among students as an interactive conversational model capable of generating human-like responses based on the input it receives" (p. 253).

Hence, ChatGPT can allow computer systems to perform tasks and errands similar to those performed by human intelligence and reasoning, such as making decisions, solving problems, discriminating speech, and enhancing language awareness (Kucuk, 2024; Pavlenko & Syzenko, 2024). Thus, ChatGPT (Generative Pretrained Transformer), developed by OpenAI and launched in November 2022, is one of the most popular AI tools considered the center of global attention for its vital role in language learning contexts for creating language texts, determining learners' proficiency level, and correcting their mistakes (Kucuk, 2024; Mugableh, 2024; Pavlenko & Syzenko, 2024).

It is popular to use AI tools like ChatGPT in Saudi EFL contexts because it allows learners to practice their second language interactively to create real-life-based classroom learning opportunities. This advantage ChatGPT provides enables Saudi learners to boost their learning process. Particularly, since they suffer from a relatively limited lexical repertoire due to the challenges, they encounter in learning an essential language aspect like vocabulary, that can affect the overall language proficiency (Albousaif, 2011; Aljabr, 2023). Furthermore, since learners struggle with limited opportunities to use English outside the classroom setting, besides being taught through the conventional teacher-centered methods (Abdelhalim & Alsehibany, 2025), having such tools that significantly contribute to enabling them to boost and support their vocabulary learning outside the educational environment is crucial, as they may reinforce their autonomy.

Although various studies support the notion that using ChatGPT for language learning further enhances the learning process, including (Daweli & Mahyoub, 2024; Kucuk, 2024; Pavlenko & Syzenko, 2024), the amount of research that explores learners' perceptions in the Saudi context is still insufficient due to the limited number of studies addressing vocabulary learning. Thus, guided by TAM, the current study examines male and female Saudi EFL learners' perceptions of using ChatGPT for vocabulary learning, focusing on PU and PEOU as its main constructs.

This study aims to (a) examine Saudi male and female EFL learners' perceptions of using ChatGPT for vocabulary learning and (b) explore learners' PU and PEOU of ChatGPT for

vocabulary acquisition, as grounded on the TAM. It intends to explore such perceptions by answering the following research questions:

1) What are Saudi EFL learners' perceptions of using ChatGPT as a vocabulary learning tool?
2) What is the learners' PU of using ChatGPT for vocabulary learning?
3) What is the learners' PEOU of using ChatGPT for vocabulary learning?

This study provides possible contributions at several levels. For learners, it may clarify how AI tools can support autonomous vocabulary learning and raise awareness regarding the appropriate use of technology. For educators, it may offer them the insights to understand the benefits and challenges to integrate it with balance and wisdom. For curriculum designers and decision-makers, it may inspire their planning and designing processes to suit learners' needs and the educational developments of the modern age. Eventually, the current study may inspire other researchers to conduct further EFL research in this area, as the number of studies that applied TAM for using ChatGPT for vocabulary learning is noticeably limited.

The current study is based on TAM, a theory that determines individuals' acceptance of using a new technological tool. The attitude paradigm proposed by Fishbein and Ajzen (1975) inspired it, and later Davis (1989, 1993) developed it by extending its constructs to include PU and PEOU. PEOU is the extent to which an individual believes using a technological tool is easy and free of effort. In contrast, PU is the extent to which an individual believes using a technological tool is useful, beneficial, and leads to improvement. Thus, according to TAM, PEOU affects the PU, as logically, when a tool is easy to use and complex-free, it is more likely to be advantageous (Davis, 1989, 1993; Güner et al., 2024; Liu & Ma, 2024).

Thus, TAM aims to explore Saudi EFL learners' acceptance to use ChatGPT for vocabulary learning, highlighting PU and PEOU. The questionnaire addresses PU through perceived learning value (e.g., vocabulary growth, retention, contextualized use), as well as PEOU through perceived usability (e.g., convenience, effort, time, and perceived complexity). This theoretical background supports the research questions that explore learners' perceptions based on PU and PEOU to discover if they accept using ChatGPT for vocabulary learning.

Recent studies support the appropriateness of TAM for examining learners' perceptions of ChatGPT in EFL/ESL contexts. For example, Liu and Ma (2024) reported positive perceptions of Chinese EFL learners for using ChatGPT in informal language learning contexts. Similarly, Vo and Nguyen (2024) found generally positive perceptions among Vietnamese EFL undergraduates and revealed that the distinction was due to the educational level rather than gender.

Literature Review

ChatGPT in EFL/ESL Learning Contexts

Various studies have revealed positive perceptions of learners for using ChatGPT in language learning contexts. For example, Alsalem (2024) reported general positive perceptions of learners for using ChatGPT for speaking development; Xiao & Zhi (2023) also revealed positive perceptions for using ChatGPT as an assistive tool in completing learners' assignments; and Ghorab & Aouissi (2024) reported learners' positive perceptions for using ChatGPT for literary analysis. Consequently, the studies across various regions that aimed to address different language skills indicate the efficacy of ChatGPT in supporting the language learning process.

Perceived Usefulness and Constraints in Vocabulary Learning

Learners reported results regarding PU, demonstrating several benefits of using ChatGPT for vocabulary learning, such as introducing new words, motivating them, and offering different explanations and examples (Algraini, 2024; Losi et al., 2024). Other benefits involve enhancing vocabulary retention, saving time and effort, providing instant feedback (Losi et al., 2024), and offering an interactive, engaging, and motivating learning experience (Abdelhalim & Alsehibany, 2025). Nevertheless, learners have also reported various challenges, such as offering frequent patterns of responses, providing inaccurate meaning and usage of words, offering limited explanations, and concerns about cultural differences (Algraini, 2024; Losi et al., 2024). Furthermore, the fear of over-relying on ChatGPT and ignoring learners' roles as active learners can limit their critical thinking skills (Kucuk, 2024), as supported by Kucuk (2024), "A certain segment of students stated that platforms such as ChatGPT and chatbot reduced their critical thinking skills and made them dependent on technology" (p.106).

Hence, the mixed perceptions can be due to the diverse contexts that involve distinct learners' characteristics, proficiency level, and learning environments.

Evidence on Effectiveness and Comparisons with Other Approaches

The effectiveness of using ChatGPT as a vocabulary learning tool depends on various contexts and populations. For example, a quasi-experimental study has proven the effectiveness of ChatGPT to improve learners' overall vocabulary performance, particularly productive vocabulary knowledge. Furthermore, it is effective for supporting learners' vocabulary learning in educational environments, especially when used with sufficient guidance (Abdelhalim & Alsehibany, 2025). On the contrary, other studies have revealed the effectiveness of ChatGPT to be used as an assistive vocabulary learning tool instead of an independent teaching approach (Sapan & Uzun, 2024). Other studies have also compared using ChatGPT for vocabulary learning with other methods. For instance, Mugableh (2024) revealed that ChatGPT-generated exercises outperformed the traditional ones. Likewise, Ptasznik et al. (2024) demonstrated that ChatGPT surpassed the traditional dictionary (Longman Dictionary of Contemporary English, LDOCE) in receptive and productive lexical tasks. Overall, the results indicate the significance of vocabulary learning, highlighting the variety across studies due to distinct contexts and applications.

Research Gap and Positioning of the Current Study

Despite the interest in using ChatGPT for language learning, there is a controversial debate that has arisen about its advantages, disadvantages, and effectiveness throughout various contexts. Hence, there is a demand to explore learners' perceptions to determine if they accept using such a tool in Saudi university contexts, as it may contribute to discovering whether it enhances or hinders the vocabulary learning process.

Method

This study employed the descriptive cross-sectional survey design. It addressed qualitative insights to explore Saudi EFL male and female learners' perceptions of using ChatGPT for vocabulary learning. It is based on TAM to examine learners' perceptions through the two core constructs of PU and PEOU, which are represented in the questionnaire items aligned with each construct.

Participants

The sample involved Saudi EFL scientific track students at Taibah University. It used the voluntary response sampling approach by inviting all the accessible students in the scientific track. The link of the questionnaire was sent to all eligible students for a specified period. A total of 134 students responded (87 females, 47 males), with ages ranging from 19 to 21. Although the sampling approach was non-random, the gender distribution reflected the broader enrolment pattern in the scientific track, as the number of female students outperformed the number of male students (1,520 females; 1,297 males).

Instruments

A structured questionnaire was used to collect the data to explore quantitative and qualitative perceptions of using ChatGPT for vocabulary learning. The questionnaire contained two sections. The demographics section included age, gender, level, prior experience with ChatGPT, and other vocabulary learning tools. The perceptions section included both positive and negative statements. It employed a Likert-scale measure using a five-point scale (strongly agree, agree, neutral, disagree, strongly disagree), aligned with PU and PEOU. Furthermore, the questionnaire included two open-ended questions to provide brief qualitative insights regarding PU and PEOU.

Procedures

The participants were invited to volunteer after being informed about the purpose of the study, their right to withdraw at any time, and the confidentiality of their responses.

Data Analysis

SPSS (Version 27) was used to analyze the quantitative data by calculating the descriptive statistics, such as the means, standard deviations, frequencies, and percentages for each item based on the PU and PEOU. Negative statements were reverse-coded from five which represents strongly agree to one which represents strongly disagree before the analysis. Manual thematic analysis was used with qualitative responses to identify participants' perceptions driven by their own experiences. Consequently, it may lead to exploring broader benefits and challenges of using ChatGPT for vocabulary learning.

Reliability and Validity

Cronbach's alpha was used for internal consistency reliability. Prior to the actual data collection process, the questionnaire was piloted with 12 participants. It got a reliability coefficient of $\alpha = .823$. Content validity was obtained through expert review by faculty in TEFL/TESOL/Applied Linguistics. Furthermore, the questionnaire was translated into Arabic and reviewed by Arabic-language specialists to validate the Arabic version. Eventually, construct validity was performed to suit PU and PEOU, in addition to obtaining a statistical validity to review the appropriateness of item structure and planned analyses.

Ethical Consideration

This study received ethical approval from the Standing Committee for Scientific Research Ethics at Taibah University. Participation was voluntary, and all participants were informed of the study's purpose, the nature of their involvement, and their right to withdraw at any time without any consequences. In addition to obtaining their intended consent, to ensure

confidentiality, avoid collecting sensitive information, and to use the securely stored responses for the informed research purposes.

Results

Reliability of the Instrument

Table 1 below presents the reliability of internal consistency. The PU subscale demonstrated good reliability (α = .824), and the PEOU subscale showed acceptable reliability (α = .706). The overall scale reliability was good (α = .863), indicating that the instrument was suitable for assessing learners' perceptions of ChatGPT for vocabulary learning (Creswell & Creswell, 2018).

Table 1. *Cronbach Alpha Coefficient*

Domain	Number of Items	Cronbach's Alpha Coefficient	Interpretation
Perceived Usefulness	15	.824	Good Reliability
Perceived Ease of Use	7	.706	Acceptable Reliability
Total	22	.863	Good Almost Excellent Reliability

Participants' Characteristics

Table 2 below shows the total number of participants, which equals 134 students (47 males, 35.1%; 87 females, 64.9%), indicating the outperformance of female participants.

Table 2. *Gender distribution of participants*

Gender	Frequency	Percentage
Male	47	35.1%
Female	87	64.9%
Total	134	100%

ChatGPT Experience

Table 3 below demonstrates the participants' prior experience with ChatGPT. They reported using it sometimes (38.1%), regularly (26.9%), and always (34.3%), indicating having direct exposure to the tool.

Table 3. *Prior experience with ChatGPT*

Previous Experience with ChatGPT	Frequency	Percentage
Never	0	0%
Sometimes	52	38.1%
Regularly	36	26.9%
Always	46	34.3%

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Total	134	100%

Perceived Usefulness (PU)

As shown in Table 4 below, learners generally reported positive perceptions of ChatGPT's usefulness for vocabulary learning (PU composite mean = 3.61, SD = 0.53).

Table 4. *Total mean and std. scores*

Measure	Value
Overall Mean	3.61
Overall SD	0.53

As shown in Table 5 below, participants strongly favored the items related to vocabulary development and retention (e.g., "ChatGPT helps me retain vocabulary": M = 4.18, SD = 0.84; "ChatGPT is helpful in increasing my vocabulary": M = 4.19, SD = 0.83).

Table 5. *PU (vocabulary retention)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
ChatGPT helps me retain vocabulary	53 39.6%	58 43.3%	19 14.2%	2 1.5%	2 1.5%	4.18	0.84
ChatGPT is helpful in increasing my vocabulary.	56 41.8%	51 38.1%	24 17.9%	2 1.5%	1 0.7%	4.19	0.83

Regarding lexical diversity as demonstrated in Table 6 below, learners highly agreed that ChatGPT supports their learning of synonyms and antonyms (synonyms: M = 4.34, SD = 0.82; antonyms: M = 4.12, SD = 0.89). For the negatively worded item regarding misdefinition of synonyms and antonyms, the mean score was lower (M = 2.56, SD = 1.25), suggesting that participants did not consistently perceive this as a frequent problem.

Table 6. *PU (lexical diversity)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
ChatGPT offers different antonyms of words.	53 39.6%	51 38.1%	24 17.9%	5 3.7%	1 0.7%	4.12	0. 89
ChatGPT offers different synonyms of words.	67 50%	51 38.1%	12 9.0%	2 1.5%	2 1.5%	4.34	0.82
ChatGPT sometimes misdefines synonyms and antonyms.	14 10.4%	14 10.4%	36 26.9%	39 29.1%	31 23.1%	2.56	1.25

Regarding learning preferences and contextual support as shown in Table 7 below, learners generally indicated favorable views, particularly regarding personalization (e.g., "ChatGPT tailors vocabulary learning to my pace": M = 4.28, SD = 0.78). However, regarding motivation and interaction, they showed greater variation, suggesting that their perceptions were less consistent in these areas.

Table 7. *PU (learners' preferences)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
Learning vocabulary through ChatGPT increases my motivation.	45 33.6%	52 38.8%	28 20.9%	7 5.2%	2 1.5%	3.98	0.95
ChatGPT tailors vocabulary learning to my pace.	60 44.8%	54 40.3%	18 13.4%	1 0.7%	1 0.7%	4.28	0.78
Despite its usefulness, ChatGPT does not increase my motivation to learn vocabulary.	19 14.2%	46 34.3%	33 24.6%	19 14.2%	17 12.7%	3.23	0.23

Table 8 below further underscores strong positive perceptions of ChatGPT's support for structured and contextualized vocabulary learning. Participants rated highly "ChatGPT generates varied practices that improve my vocabulary learning" (M = 4.17, SD = 0.85), "ChatGPT enhances my ability to understand contextualized word meaning" (M = 4.28, SD = 0.79), and "ChatGPT helps me to analyze the structure of new words" (M = 4.18, SD = 0.81). In contrast, the reverse-coded items received lower mean scores, including "ChatGPT confuses me with the many contexts of words it provides" (M = 2.78, SD = 1.12), "ChatGPT sometimes fails to provide the contextualized meaning of words" (M = 2.56, SD = 1.12), and "ChatGPT occasionally suggests incorrect word usage" (M = 2.68, SD = 1.17).

Table 8. *PU (structure and context)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
ChatGPT generates varied practices that improve my vocabulary learning.	56 41.8%	50 37.3%	24 17.9%	3 2.2%	1 0.7%	4.17	0.85
ChatGPT enhances my ability to understand contextualized word meaning.	62 46.3%	51 38.1%	19 14.2%	1 0.7%	1 0.7%	4.28	0.79
ChatGPT helps me to analyze the structure of new words.	53 39.6%	56 41.8	22 16.4%	2 1.5%	1 0.7%	4.18	0.81
ChatGPT confuses me with the many contexts of words it provides.	7 5.2%	32 23.9%	8 28.4%	38 28.4%	19 14.2%	2.78	1.12
ChatGPT sometimes fails to provide the contextualized meaning of words.	6 4.5%	21 15.7%	43 32.1%	36 26.9%	28 20.9%	2.56	1.12

ChatGPT occasionally suggests incorrect word usage.	11 8.2%	20 14.9%	41 30.6%	39 29.1%	23 17.2%	2.68	1.17

Perceived Ease of Use (PEOU)

As noted in Table 9 below, participants reported favorable perceptions of ChatGPT's ease of use for vocabulary learning (M = 3.84, SD = 0.63). This suggests a general tendency of responses toward agreement with the ease-of-use items.

Table 9. *Total mean and std. scores*

Measure	Value
Overall mean	3.8
Overall SD	0.63

As shown in Table 10 below, learners mostly favored using ChatGPT because it was convenient. They agreed that "the accessibility of ChatGPT all day is convenient" (M = 3.90, SD = 1.04) and strongly favored items indicating efficiency, including saving effort (M = 4.10, SD = 0.85) and saving time (M = 4.13, SD = 0.85). It is worth noting that the negatively worded item "I find ChatGPT complex to use" got a higher mean (M = 3.79, SD = 1.35), indicating that most participants perceived some complexity in using ChatGPT for vocabulary learning.

Table 10. *PEOU (convenience)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
I find the accessibility of ChatGPT all day is convenient.	41 30.6%	56 41.8%	26 19.4%	4 3.0%	7 5.2%	3.90	1.04
Using ChatGPT to learn vocabulary saves my effort.	48 35.8%	59 44.0%	21 15.7%	5 3.7%	1 0.7%	4.10	0.85
Using ChatGPT to learn vocabulary saves my time.	48 35.8%	63 47.0%	17 12.7%	4 3.0%	2 1.5%	4.13	0.85
I find ChatGPT complex to use.	54 40.3%	41 30.6%	10 7.5%	15 11.2%	14 10.4%	3.79	1.35

Table 11 below presents learners' perceptions regarding their feedback and preferred learning tools. Participants highly agreed that the instant feedback ChatGPT provides helps them avoid mistakes (M = 4.04, SD = 0.93). Furthermore, they highly agreed that using ChatGPT to learn word meanings is better than dictionaries (M = 4.08, SD = 0.97). In contrast, the negatively worded statement "I think using ChatGPT to learn vocabulary is boring" received a lower mean (M = 2.89, SD = 1.26), suggesting more mixed responses. Hence, this indicates that some participants had neutral perceptions regarding this area.

Table 11. *PEOU (learners' preferences)*

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
The instant feedback ChatGPT provides helps me to avoid making mistakes.	48 35.8%	54 40.3%	24 17.9%	6 4.5%	2 1.5%	4.04	0.93
Learning words meanings through ChatGPT is better than dictionaries.	56 41.8%	44 32.8%	25 18.7%	7 5.2%	2 1.5%	4.08	0.97
I think using ChatGPT to learn vocabulary is boring.	18 13.4%	24 17.9%	38 28.4%	33 24.6%	21 15.7%	2.89	1.26

Qualitative Analysis

Table 12 below summarizes the various tools participants reported using for vocabulary learning, including translation tools (e.g., Google Translate, Reverso Context, dictionaries), media-based tools (e.g., TikTok, Instagram, YouTube), educational platforms and apps (e.g., Duolingo and vocabulary apps), AI-based applications (e.g., ChatGPT and other AI assistants), and entertainment-based exposure (e.g., books, films, TV shows, podcasts, songs). Overall, responses indicate that learners use digital and non-digital tools to enhance their vocabulary learning in classroom settings and real-life applications.

Table 12. *Vocabulary learning tools*

Category	Examples Reported by Participants
Translation tools	Google Translate, Context Reverso, Dict Plus, Cambridge website, auditory repetition, dictionaries.
Media-based tools	Social media, TikTok, Instagram, YouTube.
Educational platforms	Studying in English, English learning apps, vocabulary learning apps, Istoria, Duolingo, school.
AI apps	Poe, Chat Got, Grammarly, ChatGPT, DeepSeek, Grok, Gemini.
Entertainment	Books, novels, movies, TV shows, picture books, reading stories, podcasts, memorizing, documentaries, songs.

Open-Ended Responses: Perceived Constraints in Using ChatGPT

Participants' open-ended responses revealed two main categories of challenges. First, many participants revealed they experienced technical limitations in terms of the accessibility, claiming that the free version offers restricted experience, instable internet connection, and requires subscription fee. Furthermore, they revealed other limitations, such as providing limited support for spelling feedback, pronunciation, interactive practice, and decontextualized explanations. Second, participants also expressed concerns regarding accuracy and trust, demonstrating that they encountered misinterpretations or inappropriate usage suggestions. In addition, they reported that some of ChatGPT-generated outputs were inaccurate. Moreover, they revealed concerns of overreliance that may result from excessive use. These concerns reflected participants' own words, as one participant stated that, "one of the drawbacks of using ChatGPT for vocabulary learning is the subscription fees" (Participant 21). Another participant indicated

that, "using ChatGPT to learn vocabulary can be challenging due to the limited context it provides, along with the absence of interactive exercises and face-to-face interaction" (Participant 49).

Open-Ended Responses: PU of Using ChatGPT

Participants reported their PU of using ChatGPT for vocabulary learning. They revealed that the cognitive support it offers enhances their vocabulary learning by explaining word meanings, correcting mistakes, generating synonyms and antonyms, and illustrating the usage of sentence levels. Consequently, they also highlighted interactive opportunities, demonstrating that they can ask follow-up questions and refine their understanding. In addition, several participants believed the translation feature ChatGPT provides is positive, specifically relating to specialized terminology such as medical terms. Furthermore, other benefits involved efficiency and personalization, including quick responses, saving time, and tailoring explanations. Some participants also mentioned functions related to organizational and assessment contexts, such as organizing vocabulary in tables, attaching files/images, and providing follow-up exercises to monitor their improvement over time. These benefits reflected participants' own words, as one participant stated that, "using ChatGPT saves time and effort" (Participant 134). Likewise, another participant stated that:

> For me, the best benefit ChatGPT offers is translating medical terminology, as it is mainly Latin, which makes it difficult for Google Translate to translate sufficiently. Unlike ChatGPT, which not only translates the term but also simplifies and explains it fully and comprehensively." (Participant 17).

Hence, supporting the quantitative findings, the qualitative insights also revealed mixed perceptions among learners. Negative perceptions related to technical limitations and concerns about accuracy. In contrast, positive perceptions related to cognitive, interactive, translation, motivational, assessment, and other features. Thus, these mixed perceptions may arise from different reasons for viewing ChatGPT, reflecting the varied characteristics, experiences, and beliefs of participants that contributed to building this distinction. Taken together, the quantitative and qualitative analyses demonstrated the efficacy of addressing the research questions, highlighting learners' perceptions based on the constructs in TAM (PU and PEOU).

Discussion

This study examined Saudi male and female EFL learners' perceptions of using ChatGPT for vocabulary learning based on the TAM, highlighting PU and PEOU as its two main constructs. The results indicated mixed perceptions determined based on PU and PEOU. These mixed perceptions align with studies reporting both advantages and disadvantages of learners' experiences with ChatGPT (Algraini, 2024; Losi et al., 2024).

Perceived Usefulness

Learners' responses regarding PU suggest that they perceive ChatGPT as an effective tool that enhances vocabulary learning, particularly for increasing lexical knowledge and supporting contextualization. This aligns with prior research reporting that ChatGPT can support vocabulary development, contextualized and personalized practice, and feedback that enhance the learners' retention ability (Algraini, 2024; Losi et al., 2024). The findings demonstrated that ChatGPT may offer practical advantages for vocabulary learning tasks through immediate explanations, feedback, and access to examples (Sapan & Uzun, 2024).

In addition, learners' preference for ChatGPT over dictionaries aligns with work that compared ChatGPT-generated tasks with other conventional tasks and traditional dictionaries, suggesting that language learning based on artificial intelligence tools can outperform conventional dictionary use on specific receptive and productive lexical tasks, particularly through fast and context-specific responses (Ptasznik et al., 2024). The results also align with Abdelhalim & Alsehibany (2025) and Mugableh (2024), who indicated the significance of ChatGPT-generated exercises in providing practice opportunities that can contribute to vocabulary development. Hence, the consistency of findings across studies indicates that learners perceive ChatGPT as useful when it supports meaning, use, and practice not only when it provides definitions of unfamiliar words.

Perceived Ease of Use

Regarding the PEOU, learners perceived ChatGPT as a convenient and a time-saving tool, which aligns with previous studies that described it as a supportive tool that provides fast responses and instant feedback (Losi et al., 2024; Sapan & Uzun, 2024). However, even though they reported that it is easy to use and saves effort, they perceived it as complex in some ways. Similarly, some studies revealed concerns that ChatGPT can generate language that fails to tailor learners' levels and needs (Sapan & Uzun, 2024). Thus, it is vital to address this contradiction, as the perceived complexity can reduce the perceived ease of use and may limit learners' usage even when the PU is high.

Constraints Shaping Acceptance

Besides the PU, learners revealed some challenges that may hinder their acceptance of using such a tool, including inaccuracies, overreliance, and limited human interaction. These concerns align with reports that demonstrate the unreliability of provided information, or the occasionally contradicted ChatGPT-generated output that can affect learners' confidence in such a tool (Losi et al., 2024), and with the cautions regarding learners' overreliance of using ChatGPT for vocabulary learning may reduce learners' independent engagement and critical thinking, as supported by Kucuk (2024) "These issues include the teacher fostering dependency among pupils, impairing their critical thinking skills, effectively turning them into robots, and negatively impacting the
handwriting talents of some children" (P. 108). Cost and access limitations were also reported, reflecting affordability concerns elsewhere (Algraini, 2024). Taken together, these challenges suggest that learners' acceptance may not only be related to the perceived learning value, but also to guidance, verification of accuracy and reliability, and implementation criteria.

Positioning Relative to Mixed Findings in the Literature

Although several studies revealed positive perceptions like Ptasznik et al. (2024), some studies reported limitations. For example, Sapan and Uzun (2024) reported that conventional methods outperformed ChatGPT-supported learning, suggesting that it should be perceived as an assistive tool rather than an independent language learning approach. The mixed perceptions the present study revealed emphasize a key implication: learners may prefer using ChatGPT when it facilitates their learning experience, and when its limitations are handled through appropriate implementation.

The study also supports previous research based on TAM that used ChatGPT in vocabulary learning contexts (Liu & Ma, 2024; Vo & Nguyen, 2024). Vocabulary development is fundamental to language competence and acceptance, as it serves as the infrastructure that facilitates and enables the mastery of other language skills. Thus, factors like PU and PEOU may determine learners' willingness to use AI tools to enhance their vocabulary learning outside the classroom setting.

Implications

Pedagogical Implications

The findings suggest that ChatGPT can be used as an assistive vocabulary-learning tool that may enhance exposure, practice, and feedback when used in a balanced way with appropriate supervision. Teachers may consider integrating it through context-specific vocabulary tasks, synonym/antonym tasks, and controlled practice. Consequently, it emphasizes the importance of verifying the accuracy of meanings and usage ChatGPT provides for learners. Given concerns regarding accuracy and overreliance, learners' role in the language classroom should remain active and further enhance their autonomy, engagement, and critical thinking. This can enable them to monitor their improvement and verify accuracy and reliability, aligning with the warning raised in previous research (Losi et al., 2024).

Curriculum and Policy Implications

For curriculum designers and decision-makers, the mixed perceptions suggest that integration should be with clear guidelines regarding ethical use, verification of accuracy and reliability, and appropriate task design. Furthermore, it is crucial for institutional planning to address issues like internet connection and subscription fee to encourage learners to use AI tools even outside the classroom setting to support their language learning.

Design and Development Implications

Learners reported a need for clear learning guidelines like assisting cues, guidance, and offering features that suit their levels, learning needs, and styles. Moreover, they suggested reducing the fees and making it accessible without an internet connection. As both costs and connectivity can determine the usage of such a tool (Algraini, 2024).

Consolidated Summary of Findings

Overall, learners reported generally positive perceptions of ChatGPT's usefulness and ease of use for vocabulary learning, including support for lexical expansion, contextualized understanding, personalization, and efficiency. On the contrary, they reported some concerns regarding the complexity in some ways, inaccuracies, limited spelling feedback, risks of overreliance, and limited human interaction. These mixed perceptions align with the broader literature highlighting both benefits and constraints of ChatGPT use in EFL learning (Algraini, 2024; Losi et al., 2024; Sapan & Uzun, 2024).

Conclusion

This study investigated Saudi EFL learners' perceptions of using ChatGPT for vocabulary learning through TAM constructs (PU and PEOU). The results indicated that learners tended to perceive ChatGPT as useful and convenient for vocabulary learning. Nonetheless. they reported some limitations regarding reliability, usability, and the need for balanced use without overreliance.

Recommendations for Future Research

The demand for future studies is essential, as it may strengthen the generalizability by including more diverse samples across various contexts. Since the current study is primarily quantitative with limited qualitative insights, future research may employ broader methods like the experimental or full mixed method designs that address qualitative insights more deeply to examine participants' views. Moreover, it is recommended to examine how ChatGPT affects vocabulary development over time and how learners develop their ability to verify the accuracy and reliability of new AI tools. In addition, exploring both learners' and teachers' perspectives may provide a more comprehensive view of usage and classroom integration.

Recommendations for Practice

It is vital to encourage educators to integrate ChatGPT as an assistive tool not an independent teaching approach, and to include guided tasks and verification skills. Policymakers and curriculum designers may consider addressing ethical, effective, and financial aspects to provide guidance and support. Finally, developers may consider reducing the complexity and increasing interaction, particularly for vocabulary learning contexts.

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