SEBHA UNIVERSITY JOURNAL OF HUMAN SCIENCES VOL.25 NO. 2 2026
DOI: 10.51984/VKX5CK47

مجلة جامعة سبها للعلوم الإنسانية
Sebha University Journal of Human Sciences

Journal homepage: http://www.sebhau.edu.ly/journal/johs

An Investigation into Libyan EFL Students' Perceptions of Using ChatGPT for Vocabulary Learning

Hamed Alahirsh

English Language Department, Faculty of Languages,University of Sebha, Libya

Keywords:
Artificial intelligence
ChatGPT
EFL learners
Perception
Vocabulary learning

ABSTRACT

ChatGPT is one of the most popular chatbots used in different fields, including educational sector. Over the last few years, several studies have explored its effectiveness in developing EFL language skills. The present study examined the effectiveness of ChatGPT's use for learning by exploring Libyan EFL university students' perceptions of using this tool for word knowledge enhancement. The study employed a quantitative approach through which data were obtained from a questionnaire completed by 103 English majors enrolled in Sebha University. The results obtained from this study showed that ChatGPT is an effective tool for EFL vocabulary development. Most research participants rated ChatGPT as highly useful, highlighting its effectiveness in improving their vocabulary knowledge. They valued it for providing comprehensive feedback and contextualized vocabulary learning. However, the participants voiced concerns about ChatGPT's frequent inaccurate responses, complete reliance on it, and question formulation difficulties. This study highlights ChatGPT's potential to serve as a pedagogical tool to actively enhance English vocabulary learning. Therefore, the findings emphasize the importance of integrating ChatGPT into language learning programs.

دراسة حول تصورطلبة اللغة الإنجليزية كلغة أجنبية في ليبيا لاستخدام برنامج *ChatGPT* لتعلم المفردات

حـامد الاحيرش

قسم اللغة الإنجليزية، كلية اللغات، جامعة سبها، ليبيا

الكلمات المفتاحية:
الذكاء الاصطناعي
التصور
شات جي بي تي
تعلم المفردات
متعلمي اللغة الإنجليزية كلغة أجنبية.

الملخص

يُعدّ ChatGPT أحد أكثر أدوات الذكاء الاصطناعي شيوعًا في مختلف المجالات، بما في ذلك القطاع التعليمي. وقد استكشفت العديد من الدراسات خلال السنوات القليلة الماضية فعاليته في تطوير مهارات اللغة الإنجليزية كلغة أجنبية. هدفت هذه الدراسة إلى بحث فعالية ChatGPT في تعلّم المفردات من خلال استكشاف آراء الطلاب الليبيين، الدارسين للغة الإنجليزية كلغة أجنبية، حول هذه الأداة في تعزيز معرفتهم اللغوية. استخدمت الدراسة منهجًا كميًا، حيث جُمعت البيانات من استبيانٍ أجاب عليه (103) طالب متخصصين في اللغة الإنجليزية بجامعة سبها. أظهرت نتائج الدراسة أن ChatGPT أداة فعّالة لتعزيز مفردات اللغة الإنجليزية كلغة أجنبية. وقد قيّم معظم المشاركين ChatGPT تقييمًا عاليًا، مُبرزين فعاليته في تحسين معرفتهم اللغوية. كما أشادوا بقدرته على توفير اجابات شاملة ومنح فرصة تعلّم المفردات في سياقها. مع ذلك، أعرب المشاركون عن مخاوفهم بشأن ردود ChatGPT غير الدقيقة المتكررة، والاعتماد الكلي عليه، وصعوبات صياغة الأسئلة. تُؤكد هذه النتائج على أهمية دمج ChatGPT في برامج تعلّم اللغات وتُسلط هذه الدراسة الضوء على إمكانات برنامج ChatGPT كأداة تعليمية فعّالة لتعزيز تعلّم المفردات الإنجليزية.

[1]- Introduction

Improving vocabulary knowledge is a very important aspect of learning any foreign language. This importance can be attributed to the fact that knowledge of vocabulary determines the proficiency level of a language learner. By developing a broad vocabulary repertoire, language learners can become fluent language users. As noted by Schmitt (2000), EFL learners' limited vocabulary often restricts their reading comprehension, listening ability, and meaningful communication. In this vein, Nation (2006) estimates that to achieve 98 percent reading comprehension of English text, a learner needs to know about 8000 to 9000 word families, while a number of 6000 to 7000 word families are required to achieve sufficient listening comprehension in English. However, acquiring such large amounts of vocabulary may overwhelm English as a Foreign Language (EFL) students, as their only exposure to English is at school. For this reason,

*Corresponding author:
E-mail addresses: ham.alahirsh@sebhau.edu.ly

Article History : Received 09 June 2026 - Received in revised form 25 October 2026 - Accepted 09 November 2026

several researchers offer solutions to address this gap, suggesting that learners need to find additional resources that could help them improve their English proficiency outside the educational settings (Schmitt, 2000; Zimmerman, 2000; Nation, 2006). With advanced technology, learners now have access to various language materials. These valuable resources provide a great opportunity for learners' autonomous engagement with various language learning tools, including learning websites, online platforms, and mobile applications (Algraini, 2024).

The recent advances in artificial intelligence present new opportunities for language learning that have significant implications for second language education. This claim holds particular relevance for EFL contexts where exposure and access to language are largely confined to classroom instruction. Since it was released in 2022, ChatGPT has become the most popular chatbot in the globe (Algraini, 2024). Using ChatGPT for EFL vocabulary building has gained a considerable attention in second language research (Mugableh, 2024; Abdelhalim, and Alsehibany, 2025; Abril, et al.; 2025). The research interest was largely inspired by constructivist learning theory (Vygotsky, 1978). The constructivist theory of learning cantered on the idea that a learner's knowledge can be built through interactions with others who share their prior knowledge, cultures, and own experiences. In other words, language learners are knowledge constructors who interact with the language through social interactions in order to acquire it. The theory emphasizes the notion that learning is not an exclusive individual activity; instead, learners construct their understanding of a subject rather than being passive receivers of information. Considering all of the aforementioned, it is possible to argue that ChatGPT works well with the concept of constructivist learning theory because it creates a learning environment that simulates human interactions.

Accordingly, considerable research has been conducted worldwide to examine the impact of ChatGPT use in language learning and instruction. Based on the results they obtained in their studies, a number of researchers have argued that using ChatGPT in EFL settings can help improve learners' language skills, including vocabulary development (Abdelhalim and Alsehibany, 2025; Abril, et al.; 2025). Furthermore, some research has specifically focused on how EFL learners perceived the effectiveness of ChatGPT for word knowledge development. Interestingly, this research revealed that participants in various EFL contexts show positive attitudes and a willingness to adopt ChatGpt for vocabulary learning (Algraini, 2024; Losi et al. 2024; Heidari, 2025). The research also outlined benefits of ChatGPT that encouraged a number of researchers to recommend it for vocabulary building. However, researchers have found several pedagogical and practical limitations that reduced learners' enthusiasm for using ChatGPT. Moreover, language learners complained of incorrect and misleading information, login difficulties, accessibility, and affordability (Algraini, 2024; Viet & Tran, 2024; Trinh, 2024; Alsagoor et al., 2025).

Despite the increasing interest in examining the potential of ChatGPT in English vocabulary learning, research focusing on learners' perceptions of ChatGPT use for supporting their vocabulary growth remains underexplored in the Libyan EFL context. To the best of the researcher's knowledge, no published study has investigated the Libyan EFL students' perceptions of using ChatGPT for vocabulary enrichment. Therefore, this study attempts to address this gap by exploring university students' experience with using this AI tool. Considering this, the aim of this research is to determine the positive effects of ChatGPT on supporting EFL vocabulary learning as perceived by Libyan learners. In order to provide a holistic view on this topic, the present research also attempts to identify the challenges and limitations that may temper EFL learners' enthusiasm for using ChatGPT in the Libyan context. Thus, to achieve these objectives, the current study seeks to answer the following research questions:

1. How do Libyan EFL students perceive the benefits and effectiveness of ChatGPT as a tool for vocabulary learning?

2. What are the challenges and limitations identified by Libyan EFL students regarding ChatGPT use for vocabulary learning?

[2]-Literature review

2.1 The ChatGPT concept, benefits, and limitations

According to Algraini (2024), ChatGPT is simply a state-of-the-art chatbot designed by OpenAI and first unveiled to the public in November 2022. It is one of the most advanced artificial intelligence chatbots which Shafik, (2023) described as a tool that uses natural language processing (NLP), and simulates human communication. Such features allow this tool to perform various tasks such as writing essays or summarizing texts of different length, answer questions, and hold dialogues in a human-like manner. The user can interact with ChatGPT verbally, textually, or through images. By specifically using natural language processing and deep learning algorithms, ChatGPT can comprehend the user's requests and formulate answers in an understandable and relevant manner. It is quite unlike a computer program that deterministically applies explicit rules. This is due to its functionality, which does not follow any predescribed scripts, but it produces its replies on the basis of probabilistic language modeling.

Several studies have investigated the benefits and limitations of ChatGPT in language learning. These studies showed that along with several advantages reported by learners, certain boundaries were also identified by them. One of ChatGPT's primary benefits in language learning is that it supports personalized learning and language development. Bekdaş, (2025) points out that ChatGPT provides the personalized feedback that is essential for language learning progress. To put it another way, when submitting a specific task, the learner receives direct correction and suggestions according to his or her level of language competency. This pattern supports steady language growth occurring when language learners engage actively with feedback. Syairofi et al., (2025) also noted that ChatGPT not only supports individualized learning and improves grammar accuracy, but also enhances vocabulary development through instant correction, translation, and examples. In addition to its pedagogical effectiveness, Bekdaş (2025) found that using ChatGPT in EFL classroom activities had a positive influence on student motivation and contributed to more engaging and effective learning practices.

Besides the widely recognized benefits of ChatGPT for learning general language skills, a number of researchers have emphasized its importance as an academic resource. Syairofi et al., (2025) suggest that ChatGPT can effectively support higher-level tasks such as idea generation, linguistic revision, and producing teaching material. It can also be used to generate essay topics and enhance students' drafts. Additionally, educators can use it to create teaching materials and exercises and provide students with model answers.

In addition to its significant benefits, ChatGPT has several limitations for language learning. According to Nugroho et al., (2023) and Bekdaş, (2025), when responding to a query, ChatGPT occasionally provides misleading information. Such inaccurate input can mislead learners into acquiring erroneous knowledge about the subject under study. Moreover, research indicates that learners' complete dependence on ChatGPT responses, without further verification, may misguide them to learn irrelevant information about new words (Alsagoor et al., 2025; Aldowsari & Aljebreen, 2024). Researchers further report concerns about the negative effects of ChatGPT on human role in the language learning process. Kavak et al., (2024) and Bekdaş, (2025) argue that the absence of real human interaction limits the development of conversational skills and cultural awareness. They go on to state that successful learning typically occurs through teacher-student or student-student interaction. Apparently, this cannot be attained through AI -based learning. Therefore, the researchers warn that when learners overly rely on AI-generated answers, they lessen their independent thinking and reduce active language production (Nugroho et al., 2023; Syairofi et al., 2025).

2.2 Previous studies

A number of studies have shown convincing evidence of the substantial advantages of ChatGPT in enhancing EFL learners' vocabulary knowledge of (e.g. Xiao and Zhi, 2023; Losi et al., 2024; Ho, 2024). Most of these studies adopted a quasi-experimental and experimental design, which involved measuring word knowledge development through pre-post testing procedures. Findings from these

studies have shown significant improvements in the ChatGPT groups' vocabulary acquisition compared with groups who learnt vocabulary though various traditional teaching methods. In Aldowsari and Aljebreen's (2024) study, 60 Saudi female high school students were assigned randomly in equal numbers to two groups: experimental and control groups. The experiment lasted for eight weeks, during which the experimental group learned 45 target words. On the other hand, the control group studied the same words in paper-based lists. The study revealed a significant mean score difference in the participants' word knowledge between the pre and post tests ($p < 0.0$). the results revealed that the ChatGPT group outperformed (M=12.2) the control group (M=7.4) in the number of words they acquired.

Abril et al. (2025) studied the impact of ChatGPT use on word knowledge development of Ecuadorian students in two learning settings: a ChatGPT vs traditional learning. Both groups were assessed on their vocabulary knowledge before and after a four-week instructional intervention. Findings from this study revealed significant improvements in the ChatGPT group's vocabulary scores in comparison with traditional learning group. While the mean score of the ChatGPT group increased from 7.52 in the pre-test to 8.83 in the post-test, the mean score achieved by the traditional learning group in the pretest remained the same in the posttest (M = 7.81). Although the two above reviewed studies were conducted in two different EFL contexts, the findings from these studies prove that ChatGPT's positive impact on vocabulary learning does not strictly depend on this factor.

Other experimental studies compared ChatGPT with dictionary use in relation to their effective role in EFL vocabulary enhancement. Lew et al. (2024) undertook a study involving 166 Polish EFL undergraduate students to assess vocabulary gain from using ChatGPT in comparison with monolingual and bilingual dictionaries. The participants were divided into three groups: ChatGPT group (N = 55), bilingual dictionary group (N = 55), and monolingual dictionary (N = 56). This study examined word knowledge development at both the receptive and productive levels. This study found that ChatGPT was a strong competitor to traditional dictionaries for enhancing word knowledge at both comprehension and use levels. It was reported that for producing target phrasal verbs, the effect of ChatGPT use was very significant ($\chi^2 = 84.7$, DF = 2, $p < 0.001$). Similarly, the overall effect of the tool was significant ($\chi^2 = 18.9$, DF = 2, $p < 0.001$) for understanding the target phrasal verbs.

Ptasznik et al., (2024) replicated Lew et al.'s (2024) study design. However, Ptasznik et al. examined learning in two modes: ChatGPT against a monolingual dictionary. A total of 223 Polish university students were allocated to a ChatGPT group (N = 110) and a group using a mobile dictionary (N = 113). The participants in the two groups were pre-post tested on 20 lexical items through paper-based receptive and productive tests. The findings of this study show a greater vocabulary improvement by the ChatGPT group in comparison with the mobile dictionary group. The results of the receptive knowledge test demonstrate the ChatGPT group performed much better than the dictionary group did, with mean success rates of 87% and 73%, respectively. When the participants were tested on word use knowledge, the ChatGPT group also scored a higher result than the participants in the dictionary group. The mean observed success rate was 81% for ChatGPT users, compared to 53% for dictionary users. These results, along with the findings reported by Lew et al. (2024), prove that ChatGPT is more valuable than dictionaries in building EFL vocabulary knowledge. This could be attributed to ChatGPT's capacity to provides richer definitions and examples than both traditional and online dictionaries.

In addition to the aforementioned studies on the pedagogical use of ChatGPT for teaching EFL students, several studies in the related literature investigate learners' perceptions of using this technology for mastering the language vocabulary. Most of these studies reported that EFL learners positively perceived the application of ChatGPT for developing this language skill. Notably, this result was reported in different studies conducted among learners in various countries and educational settings, including Saudi Arabia (Algraini, 2024; Aldowsari & Aljebreen, 2024; Alharthi, 2024; Alnaeem, 2025; Alraddadi, 2025), Vietnam (Ho, 2024), South Korea (Van Horn, 2024), Turkey (Karataş et al., 2024), Iran (Rezai et al., 2024) and multi-national samples (Slamet, 2024).

Xiao and Zhi (2023) carried out small-scale qualitative research, which involved interviews with five Chinese university students to investigate their understanding and perceptions of using ChatGPT for EFL learning purposes, including vocabulary development. The study found that students perceived ChatGPT as an effective learning tool, reporting that the interaction with ChatGPT helped them acquire a large number of new English words along with developing grammar and essay writing skills. Similarly, Irianto1, et al. (2024) employed a case study design to explore in depth the perception and attitude of 5 Indonesian EFL college students. The study demonstrated a positive attitude toward ChatGPT use. The participants concluded that ChatGPT could be used as a language learning tool that offers instant access to a wide range of new vocabulary and expressions.

Adopting a quantitative survey method, Alharthi (2024) asked 299 undergraduate students at three different Saudi universities for their views on ChatGPT' effectiveness when used as a supplementary tool in language learning. The results show that participants had positive perceptions of ChatGPT. They considered it an effective, engaging, and convenient means of learning vocabulary. However, despite they valued learning through ChatGPT, the participants expressed their preference for human interaction over r ChatGPT when learning vocabulary. Similarly, Losi et al. (2024) employed a descriptive quantitative methodology to determine Indonesian high school students' perceptions of the effectiveness of ChatGPT as a supporting tool in language learning. The researchers distributed an online survey to the target population to collect their data. Data analysis revealed that participants had positive perceptions of ChatGPT as an effective learning tool, characterized by engaging features that promote student motivation. The study also revealed that the participants held positive attitudes towards ChatGPT's role in developing their English vocabulary knowledge, although they identified a number of limitations associated with its use such as the accuracy of its responses and potential misuse.

In addition to purely qualitative and quantitative approaches, several studies have adopted a mixed-methods design to offer a better understanding of EFL learners' perceptions of using ChatGPT to enhance their language skills. Algraini (2024) examined 101 Saudi female EFL learners' perceptions of using ChatGPT to acquire new English vocabulary. The findings suggested that the students generally considered ChatGPT useful for improving their English vocabulary. They identified some benefits of ChatGPT as a tool for learning. These highlighted benefits were related to higher levels of motivation, accurate responses, and multiple exposure to new words. Nonetheless, the students also expressed concerns related to ChatGPT's repetitive suggestions, occasional errors, and limited understanding of context.

Likewise, Ho (2024) studied Vietnamese university students' perceptions of using ChatGPT to learn English language. In order to obtain quantitative data, a questionnaire was administered to 120 students, and qualitative data were collected from 10 students through semi-structured interviews. The study revealed a positive attitude by student towards the use of ChatGPT for English vocabulary learning (M = 3.47). In addition, the participants perceived grammar checking and paraphrasing functions as the most useful features of ChatGPT (M = 3.28). In terms of learners' motivation, the participants reported that ChatGPT encouraged them to participate more actively in language learning tasks. They acknowledged the ease of using ChatGPT in learning new vocabulary, although they believed teacher and classroom instruction were still necessary. The study concludes that students should be educated on how to use ChatGPT in an appropriate way, given the possibility of being misused.

Abdelhalim and Alsehibany (2025) investigated the effect of using ChatGPT on vocabulary acquisition among 71 female Saudi college students; divided into 36 students in the experimental group and 35 students in the control group. After the treatment was complete, 6 students from the experimental group were interviewed for further

investigation into their experience of using ChatGPT for vocabulary learning. Interview data showed that the participants perceived the use of ChatGPT as particularly useful for their learning due to its instant and personalized feedback. They also positively perceived the potential role of ChatGPT in vocabulary learning enhancement, particularly for providing contextualized vocabulary learning.

Many studies conclude that, in general, EFL students considered ChatGPT a useful and motivating tool for extending vocabulary knowledge by providing comprehensible examples, context, and immediate feedback. Students perceived ChatGPT as an effective and simple to operate tool. They showed positive attitudes toward using ChatGPT in EFL classes. Still, students identified some challenges associated with inaccurate and plagiarized content, as well as overreliance and misuse of this tool.

[3]-Methodology

3.1 Research Design

This study utilized a descriptive quantitative research design that involves procedures for collecting and analyzing measurable data**.** The research was conducted in the English Department, University of Sebha, Libya, during the Spring Semester 2026. The researcher shared an online questionnaire directly with the entire population. To ensure that the questionnaire reached all target students, the researcher shared it in an official WhatsApp group for the department's students. This platform was established by the academic department and encompasses all enrolled students.

3.2 Participants

The participants of this research were 103 Libyan adult students aged between 18 and 22 years. All participants were English majors who represented students across eight different academic semesters. For the purpose of the research, participants who had used or at least been exposed to ChatGPT in vocabulary learning were included in this study. Therefore, responses from non-users were considered disqualifiers and excluded from the data. The purposive sampling technique was used because it is considered appropriate when the researcher intends to investigate a phenomenon with a particular focus or when there is a need to select participants with specialized or rare characteristics for a study (Etikan et al., 2016). Purposive sampling was justified by the fact that participants should be English majors who had prior experience with ChatGPT, either having used it or having been exposed to it for vocabulary learning purposes. If respondents did not have the required background knowledge on ChatGPT, it would not have been possible to obtain valuable and insightful information relevant to the research questions, which is why such respondents were not included in the study.

For ethical considerations purposes, participants were informed about the study's aims and were assured that their participation was voluntary prior to completing the questionnaire. Additionally, participants were made aware that their identities would be kept anonymous to ensure confidentiality.

3.3 Instrument

To answer the research questions, this study utilized a 5-point Likert scale questionnaire (1= Strongly agree; 2= Agree; 3= Neutral; 4= Disagree; 5= Strongly disagree). This instrument comprises 22 questions divided into four sections. These sections evaluate various dimensions of learners' experience of using ChatGPT for EFL vocabulary learning. Section 1 (items 1- 8) assesses learners' perception of ChatGPT's benefits and effectiveness. Section 2 (items 9-13) addresses its simplicity and interaction, while Section 3 (items 14-18) explores learners' challenges and concerns about ChatGPT. The last section (items 19-22) is designed to elicit data on the learners' engagement and intention to use ChatGPT.

The questionnaire's reliability and validity were assessed by performing certain essential statistical procedures. First, the instrument's reliability was measured using Cronbach's Alpha Coefficient. It was purposefully used to ensure the internal consistency of the questionnaire throughout its items within the 5-point Likert scale. Cronbach's Alpha showed that the instrument is reliable as the internal consistency value reached 0.84, which is greater than 0.7. Similarly, the items of the questionnaire were tested for validity by using Pearson's correlation technique. As shown in Table 1 below, the Pearson correlation coefficients of all items ranged from 0.485 to 0.911. This implies that the items have a moderate to strong positive relationship, indicating high consistency and significant validity of the research instrument. After the reliability and validity were tested and confirmed, the questionnaire was distributed electronically through Google Forms and completed by 103 respondents.

Table 1: Validity of Questionnaire Categories according to Pearson Correlation

Benefits		Ease of use and interaction		Limitations and Challenges		Future Intent and Engagement	
1	.576**	**9**	.701**	**14**	.581**	**19**	.842**
2	.696**	**10**	.625**	**15**	.747**	**20**	.911**
3	.602**	**11**	.709**	**16**	.533**	**21**	.873**
4	.543**	**12**	.529**	**17**	.683**	**22**	.677**
5	.665**	**13**	.766**	**18**	.485**		
6	.567**						
7	.544**						
8	.575**						

1-22 = Item No in the questionnaire

[4]-Data Analysis

For answering the two research questions, the researcher used SPSS software to analyze the numerical data. These data were collected through 22 items on the 1-5 Likert scale in the perception survey on using ChatGPT for learning EFL vocabulary. Several descriptive statistics were performed to summarize the 103 responses received from the participants. To provide a complete and accurate picture of the data, each item was analyzed to obtain its mean, standard deviation, frequency, and significance level (p-value).

4.1 Results

The findings shown in Table 2 present the questionnaire items that explore participants' perceptions of the benefits and effectiveness of ChatGPT in enhancing their vocabulary building. As shown in the table, students largely perceived ChatGPT as a beneficial and effective tool for expanding their vocabulary size. Presenting the items of this category in descending order, they are: ChatGPT instant feedback (item 8: M = 4.36, SD = 0.88); checking word use accuracy (item 6: M = 4.31, SD = 0.90); learning synonyms and antonyms (item 3: M=4.29, SD=1.03), understanding the meaning of new words (item 2, M = 4.26, SD = 1.03); learning words in context (item 4: M = 4.22, SD = 1.03); learning at students' own pace (item 7, M = 3.99, SD = 1.08); increasing vocabulary size after ChatGPT use (item 1: M = 3.86, SD = 1.10); and vocabulary retention (item 5: M = 3.70, SD = 1.25). The last three items are relatively the least endorsed of all items within this dimension, but they are still clearly above the midpoint rating of 3.

SEBHA UNIVERSITY JOURNAL OF HUMAN SCIENCES VOL.25 NO. 2 2026
DOI: 10.51984/VKX5CK47

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Journal homepage: http://www.sebhau.edu.ly/journal/johs

Table 2: Quantitative data of the students' perceptions of the benefits and effectiveness of ChatGPT for learning EFL vocabulary

NO	*STATEMENT*	*M*	*SD*	*%*	*P*	*DECISION*	*RANK*
1	ChatGPT helped me learn new vocabulary	3.86	1.10	77	0.00	Sig	7
2	ChatGPT was very helpful for understanding the meaning of new words.	4.26	0.99	85	0.00	Sig	4
3	I found ChatGPT effective for learning word's synonyms and antonyms.	4.29	1.03	86	0.00	Sig	3
4	ChatGPT provided a good opportunity to learn new words in context.	4.22	1.03	84	0.00	Sig	5
5	ChatGPT helped me remember vocabulary better than traditional methods.	3.70	1.25	74	0.00	Sig	8
6	ChatGPT was useful for checking I was using a word correctly.	4.31	0.90	86	0.00	Sig	2
7	ChatGPT helped me learn new vocabulary at my own pace.	3.99	1.08	80	0.00	Sig	6
8	ChatGPT provided feedback, which was helpful for my vocabulary learning.	4.36	0.88	87	0.00	Sig	1

Detailed results of how students perceived the simplicity of and interaction with ChatGPT are presented in Table 3. The statistical findings regarding this dimension revealed that Libyan EFL students held positive views on the convenience of using and interacting with this AI tool. All items in this category received almost 4 or above mean scores. Sorted by decreasing value, these items are: item 9 "*It was easy to use ChatGPT for vocabulary learning*" (M = 4.36, SD = 0.96); item 10 "*I found it easy to ask ChatGPT to generate words' definitions and examples*" (M = 4.28, SD = 0.91); item 11 "Interacting with ChatGPT was clear and understandable" (M = 4.17, SD = 0.97); item 12 "*I found it easy to correct my mistakes based on ChatGPT's responses*." (M = 4.08, SD = 1.01); and item 10 "*Learning how to interact with ChatGPT for vocabulary purposes was easy for me*" (M = 3.97, SD = 1.09).

Table 3: Students' Perceptions of ChatGPT's Ease of Use and Interaction

NO	***STATEMENT***	***M***	***SD***	***%***	*P*	***DECISION***	***RANK***
9	It was easy to use ChatGPT for vocabulary learning.	4.36	0.96	87	0.00	Sig	1
10	I found it easy to ask ChatGPT to generate words' definitions and examples.	4.28	0.91	86	0.00	Sig	2
11	Interacting with ChatGPT was clear and understandable.	4.17	0.97	83	0.00	Sig	3
12	I found it easy to correct my mistakes based on ChatGPT's responses.	4.08	1.01	82	0.00	Sig	4
13	Learning how to interact with ChatGPT for vocabulary purposes was easy for me.	3.97	1.09	79	0.00	Sig	5

Table 4 shows the difficulties and limitations of ChatGPT as perceived by the respondents. Overall, the participants agreed on the difficulties and limitations of using ChatGPT in vocabulary learning. The data indicate that participants preferred human feedback over feedback generated by AI tools. The item ranked first was item 18, which stated that "*Interaction with a teacher is more useful than ChatGPT feedback for learning vocabulary*" with a mean score of 3.85 (SD = 0.96). This was followed by item 16 "*I worry about becoming overly dependent on ChatGPT for learning*" which was ranked second in this category, with a mean score of 3.75(SD = 1.20). The questionnaire item that received the third highest mean score (M=3.64, SD = 1.24) was Item 14, which stated "*ChatGPT may sometimes provide incorrect or misleading information about new words*". Item 17 quoted as "*It is difficult to formulate the right questions to get useful answers about vocabulary*" and was ranked fourth with a mean score of 3. 49. The lowest mean score was noted in item 15 "*ChatGPT's responses can be too complex or difficult for my English level*" with a mean score of 3.12 (SD = 1.29). Since the p-value of this item is greater than 0.05, this indicates that the finding is not statistically significant. A p-value of 0.36 on a Likert scale item means that participants' answers are not significantly different from the neutral midpoint (3.0).

Table 4: Students ' Perception of ChatGPT limitations Challenges

No	***Statement***	***M***	***SD***	***%***	***P***	***Decision***	***Rank***
14	I sometimes receive incorrect or misleading information from ChatGPT.	3.64	1.24	73	0.00	Sig	3
15	ChatGPT's responses can be too complex or difficult for my English level.	3.12	1.29	62	0.36	*Not Sig*	5
16	I worry about becoming overly dependent on ChatGPT for learning.	3.75	1.20	75	0.00	Sig	2
17	It is difficult to formulate the right questions to get useful answers about vocabulary.	3.49	1.21	70	0.00	Sig	4
18	Interaction with a teacher is more useful than ChatGPT feedback for learning vocabulary.	3.85	0.96	80	0.00	Sig	1

The data related to the last section of the questionnaire are presented in Table 5. The four items within this category asked the participants

*Corresponding author:
E-mail addresses: ham.alahirsh@sebhau.edu.ly
Article History : Received 09 June 2026 - Received in revised form 25 October 2026 - Accepted 09 November 2026

their perceived intention to continue using and engaging with ChatGPT to learn new English vocabulary in the future. All these items showed statistically significant results with a p-value reported at 0.00 across all statements. The data in this able illustrate that the participants averaged the four items in this category above the midpoint rating of 3, with item 21 "*I feel motivated to learn more vocabulary when using ChatGPT*" ranking the highest by a narrow margin (M= 3.84, SD= 1.30). The second highest mean was observed in item 22 which stated that "*I enjoy using ChatGPT for learning English vocabulary*" with a mean score of 3.79 (SD = 1.23). The questionnaire item measuring the participants' intention to recommend ChatGPT to others also gained a positive rating. As can be seen in Table 5 below, item 20 "*I recommend ChatGPT to other students for learning vocabulary*" was ranked third with a mean of 3.76 (SD = 3.76). Despite the fact that item 19 "*I intend to continue using ChatGPT to learn vocabulary in the future*" had the lowest mean among the items stated above (M = 3.54, SD = 1.23, Rank 4), this statement still had a p-value of 0.00 which denotes statistical significance. This suggests that although participants rated this item relatively lower than the others, they still intend to continue using ChatGPT for their vocabulary learning needs.

Table 5: Students' Intention to Continue Using ChatGPT

NO	*STATEMENT*	*M*	*SD*	*%*	*P*	*DECISION*	*RANK*
19	I intend to continue using ChatGPT to learn vocabulary in the future.	3.54	1.23	70	0.00	Sig	4
20	I recommend ChatGPT to other students for learning vocabulary.	3.76	1.28	80	0.00	Sig	3
21	I feel motivated to learn more vocabulary when using ChatGPT.	3.84	1.30	80	0.00	Sig	1
22	I enjoy using ChatGPT for learning English vocabulary	3.79	1.23	80	0.00	Sig	2

[5]- Discussion

This research explored Libyan EFL students' perceptions of using ChatGPT for vocabulary development. The findings are discussed according to the research questions addressed by this study. The first research question in this study is "*How do Libyan undergraduate EFL students perceive the benefits and effectiveness of ChatGPT in enhancing their vocabulary learning*?

The statistical results from the four categories paint a consistently positive picture of Libyan EFL students' perceptions of ChatGPT's use for vocabulary knowledge improvement. The data confirm the effectiveness of ChatGPT as reported by the research participants. Table 2, shows the statistical results obtained from the eight items on a five-point Likert scale. The results in this table demonstrate high mean scores ranging from 3.70 to 4.36, with all items showing statistically significant values (p = 0.00). Seventy-five percent of students agreed or strongly agreed that ChatGPT facilitated their learning of new English words. Overall, Libyan EFL students reported a positive attitude toward the use of ChatGPT for enhancing vocabulary knowledge.

Interestingly, eighty-seven percent of the respondents considered ChatGPT feedback the most beneficial feature for improving their EFL vocabulary knowledge. This finding supports Bekdaş's (2025) research, which found that ChatGPT feedback supports individual improvement and makes learning more engaging and practice more effective. EFL instruction in Libya has been challenged by large class sizes, resulting in limited one-on-one error correction by teachers. When students rate personalized, immediate feedback as the single most valuable feature, this might be arguably compensatory. ChatGPT is filling a structural gap in feedback provision that the classroom itself does not reliably supply.

The findings also show that the participants highly valued ChatGPT's effectiveness for word-use consultation (item 6 = 86%). This result reflects a self-monitoring orientation among Libyan EFL learners, showing that the participants valued ChatGPT not only for learning word meanings but also for productive vocabulary use. The high rating for word-use consultation (86%) suggests that participants moved beyond simple meaning-retrieval toward addressing the widely recognized receptive–productive vocabulary gap (Nation, 2001), where learners recognize a word's meaning but remain unsure how to deploy it correctly in context. ChatGPT's ability to provide instant, non- judgmental feedback on language use may have been especially beneficial to Libyan EFL learners, who often have limited opportunities for productive language practice within traditional classroom environments. This also reflects a self-regulated learning orientation (Zimmerman, 2002), as learners appeared to use the tool not merely to consume information but to actively test and monitor their own language output before using it independently.

Moreover, the participants in the current study hold broadly positive perceptions of ChatGPT's effectiveness in creating a contextualized environment for vocabulary learning. Contextualized input (item 4, M=4.22) was rated highly, and this may be more consequential for Libyan learners than for learners in more English-saturated environments. Since Libya offers comparatively limited everyday exposure to English, ChatGPT's ability to generate examples "in context" may be substituting for authentic input that students in contexts with more English media exposure can access through other channels.

Regarding the second dimension (Table 3), participants expressed consistently positive perceptions of ChatGPT's accessibility and interaction for vocabulary learning purposes. This was confirmed by p-values across all items (9 -13), which were found to be statistically very significant (p=0.000), including the statement "*I found it easy to ask ChatGPT to generate words' definitions and examples*" (item 10). This interesting finding suggests that the participants' perspective on the simplicity of using and interacting with ChatGPT could be attributed to its generated output, which was appropriate to the participants' proficiency levels. The definitions and examples generated by ChatGPT therefore appear to directly support contextualized vocabulary learning by presenting a word's meaning alongside its surrounding context. This supports the role of ChatGPT in increasing contextualized input for unknown words, since accurate definitions, explanations, and examples generated by ChatGPT have been found to improve vocabulary acquisition (Algraini,2024; Aldowsari & Aljebreen, 2024; Slamet, 2024; Karataş et al., 2024; Alsagoor et al., 2025).

A further perceived benefit of ChatGPT relates to its engaging and motivational qualities. As illustrated in Table 3, statements of item 11 "*Interacting with ChatGPT was clear and understandable*" and item 13 "*Learning how to interact with ChatGPT for vocabulary purposes was easy for me*" were rated as agree or strongly agree by about 80% of respondents with mean scores 4.17 and 3.97 respectively, and p-value of 0.00. These findings provide evidence for the benefits of ChatGPT in producing understandable language that facilitates personalized vocabulary learning and engagement. This lends further support to previous research which found that ChatGPT increases learners' engagement by making vocabulary learning and practice an interactive, enjoyable, and autonomous activity (e.g. Ho, 2024; (Algraini,2024; Alsagoor et al., 2025; Abdelhalim & Alsehibany, 2025). Learners' engagement is also reflected in the responses to item 15 in Table 4. Respondents did no express strong agreement with the statement "*ChatGPT's responses can be too complex or difficult for my English level*", which obtained the least concern rating (M = 3.12, SD = 1.29). Notably, this item did not reach the statistical significance (p = 0.36), suggesting that many participants expressed disagreement

with this matter.

However, despite the reported benefits of using ChatGPT to increase the participants' vocabulary size, they also identified certain challenges and limitations related to using it for word knowledge growth, which addresses the second research question: *What are the challenges and limitations identified by Libyan EFL learners regarding the use of ChatGPT for vocabulary learning?*

The data of this research, as illustrated in Table 4, show that a preference for teacher interaction over ChatGPT feedback was the most prominent concern among the participants (M = 3.85, SD = 0.96). Eighty percent of the participants agree or strongly agree with the statement "*Interaction with a teacher is more useful than ChatGPT feedback for learning vocabulary*", and this result reached statistical significance ($p < 0.05$). This result supports Vygotsky's (1978) sociocultural theory, which argues that learning is fundamentally a social process facilitated through interaction with more knowledgeable people. The finding also suggests that the teacher's role is fulfilled in ways that AI tools cannot replicate. The negative effect of ChatGPT on the human role in the language education process was also reported in other studies reviewed above (Kavak et al., 2024; Bekdaş, 2025). Moreover, EFL instruction in Libya has historically been strongly teacher-centered, and teacher authority carries social weight in the broader educational culture. Thus, this finding may reflect not just a general belief in social learning theory, but a specific institutional norm in which the teacher is still seen as the legitimate authority on correctness, with AI serving as a supplement rather than a substitute.

In addition, the participants expressed concerns about the risk of becoming overly reliant on ChatGPT for vocabulary learning. Item 16 ("I worry about becoming overly dependent on ChatGPT for learning") was ranked second, with 75% of the participants expressing agreement to it, yielding a mean score of 3.75. The standard deviation for this item (1.20) reflects a degree of consensus among respondents, indicating that the concern about reliance on ChatGPT is broadly shared across the participants ($p = 0.00$) not just driven by a subset of anxious students alone. This concern suggests a coherent pattern: students value ChatGPT and use it readily, yet remain cautious enough about dependency that their stated intention to continue using it lags behind how beneficial they report it to be. Learners' concerns about their dependence on ChatGPT in this research reinforce findings from the existing literature which reported the same results (Alsagoor et al., 2025; Aldowsari & Aljebreen, 2024; Alraddadi, 2025; Karataş et al., 2024; Alnaeem, 2025). This apprehension is theoretically grounded in Zimmerman's (2000) theory of Self-regulated learning which holds that autonomous learning strategies and metacognitive skills are important factors in language proficiency development. Extensive reliance on ChatGPT may therefore undermine the learners' ability to develop independent vocabulary learning strategies.

Even when using ChatGPT was perceived positively, participants highlighted some issues with ChatGPT's responses. More than 75% of the respondents reported that they were sometimes unsure whether the information provided by ChatGPT was correct (item 14: M = 3.64, SD = 1.24, $p < 0.05$). This shows that although ChatGPT provided a good simulation of a natural conversational interaction, it was not considered faultless, as participants expressed some concerns about its misleading or false information. The concern about ChatGPT's accuracy was also confirmed by Losi et al. (2024) who reported that learners were hindered by ChatGPT's occasional errors and overly repetitive suggestions. Similarly, Algraini (2024) reported several drawbacks regarding the consistency and accuracy of ChatGPT's responses, finding that her participants frequently received less contextual or reiterative feedback on their vocabulary learning.

Surprisingly, the data showed that the majority of participants (70%) faced difficulties in receiving accurate and reliable outputs from ChatGPT due to prompt formulation problems. The participants seemed to encounter this challenge as a result of lack of knowledge regarding appropriate prompt use and ChatGPT's limited understanding of learner input. This finding converges with those reported in previous research indicating that the language in which prompts are written significantly affects output quality (Hwang et al., 2024). More importantly, Libyan EFL learners' difficulties in formulating effective ChatGPT prompts for vocabulary learning can best be attributed to a confluence of several factors, among which is their general lack of proficiency in the language requires for effective prompting.

Furthermore, EFL students in Libya, compared to their better-resourced peers, have less access to reliable digital resources, and face an educational system that has not yet developed the substructure to support artificial intelligence literacy. The ability to formulate prompts is therefore contextualized within an environment of disrupted and limited resources. Prompting is ,therefore, not a skill Libyan EFL students can learn independently, and their difficulties in this area should not be prioritized over the larger infrastructural and pedagogical challenges they face with regard to EFL learning generally. In fact, students' prompting challenges are largely symptoms of these larger issues. In contrast, better-resourced EFL learners have greater access to the tools required to benefit from prompting and have consequently moved on to more pressing concerns, such as avoiding plagiarism and overreliance on the technology. Therefore, in order to address the issue of Libyan students' poor prompting performance, it is necessary to tackle their inadequate digital infrastructure and invest in their English language learning resources.

[6]- Conclusion

The present research explored Libyan EFL students' perceptions of the effectiveness, benefits, and limitations of using ChatGPT for word knowledge development. The findings show that Libyan EFL students held positive perceptions of ChatGPT for its effect on increasing their vocabulary size. The study suggests that ChatGPT's feedback is the most effective features that enables EFL students to engage effectively in learning new vocabulary at both receptive (meaning) and productive (use) levels.

Findings also highlight the benefit of learning words in context. ChatGPT was perceived useful not only for providing contextualized vocabulary learning but also for its ease of use, which fosters engagement and interaction with it. However, this study identified several challenges and drawbacks associated with ChatGPT use, such as lack of human feedback, frequent generation of inaccurate responses, risk of over-dependence on it, and prompting difficulties.

This study offers valuable insights into ChatGPT's potential to enhance EFL vocabulary learning. The study suggests that the effect of ChatGPT on EFL vocabulary learning deserves much more attention than it has received to date. In the future, ChatGPT can be used to optimize vocabulary learning process as it offers opportunities for personalized, autonomous, and accessible language learning. Likewise, the results posit that educational institutions, particularly in limited language exposure contexts, could encourage students to explore new methods of vocabulary development through ChatGPT use.

The current study makes a contribution to literature by documenting the Libyan perspective. However, the researcher acknowledges several limitations related to its design and generalizability. The results were based on students' perceptions and a self-reported instrument, which may raise questions about subjectivity. Further, this research limits generalizability as data collection was restricted to a single university. Likewise, it might not be generalizable to the whole population of English majors since the sample was not randomly selected. It could also be a gap that participants were not naïve to the use of ChatGPT; therefore, findings might not be generalizable to students who have not used this particular chatbot. Therefore, further investigations need to be carried out to widen the scope of this study regarding the number of universities, locations, and populations. Additionally, this study employed a quantitative research approach and data were collected numerically. Further studies can build upon these quantitative insights and include qualitative interviews to explore the depth of individual participants'

insights.

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