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Generative Artificial Intelligence and ChatGPT in Language Learning: EFL Students' Perceptions of Technology Acceptance

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Abstract

The study conducted in the centre of Vietnam in 2023 aims to explore English-majored students' perceptions towards the application of ChatGPT in developing students' English language. The research was grounded on the Technology Acceptance Model developed by Davis (1998) and further revised by Shoufan (2023). The quantitative approach was selected for the study with the questionnaire as the instrument. 369 English-majored students who have experienced using ChatGPT in language learning were selected for the study. The findings reveal that although students found it easy to use ChatGPT as well as perceived it as a useful tool for their language learning, they had neutral opinions on its usefulness. Furthermore, students had a high level of attitudes towards the use of ChatGPT in language learning while the negative attitudes towards it were found to be at a low level. While genders were recognised not to have impacts on students' perceptions, class levels had significant effects on those of students. It is highly recommended that teaching strategies, careful monitoring, and a balance between the use of ChatGPT and human interaction should be under consideration for an effective adoption of ChatGPT in language learning and teaching.

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Introduction

Artificial intelligence-generated content (AIGC) is the latest created technology that allows users to request personalized requirements to generate certain content (Wu et al., 2023). Based on the development of Artificial Intelligence Content Generation (AIGC), various products were developed by the world's leading technology companies. Among them is OpenAI with ChatGPT, a tool that can respond to human requests in natural languages. Since the appearance of ChatGPT in late 2022, the application has boosted great changes in many fields including language education (Sami et al., 2023). Teachers and students have been trying to make use of ChatGPT to teach and learn foreign languages.

Many studies have been conducted on the use of ChatGPT to develop students' language proficiency (Baskara, 2023; Kohnke, 2023; Kasneci et al., 2023; Kohnke et al., 2023; Ho, 2024; Hong, 2023). The studies found that ChatGPT offers an interactive, engaging and productive language learning environment for learners to develop language skills and knowledge despite some potential challenges to academic integrity. While these studies introduce preliminary meaningful discussions on ChatGPT's impact on language learning, their findings about the benefits and challenges of ChatGPT are theoretically based, or they still lack empirical evidence or methodological rigor. Moreover, students' perceptions on ChatGPT, which can influence the effective use of ChatGPT and its improvement (Shoufan, 2023), have not been learned enough. Therefore, there is a need to have more knowledge on using ChatGPT to learn a foreign language from students' perspectives.

The study was carried out to explore students' perceptions towards the use of ChatGPT to develop English language skills in the Vietnamese context where technology advancements have been updated a little slowly as compared to developed nations. It aims to address the research question: "What are students' perceptions towards the use of ChatGPT in language learning?" Two hypotheses were tested in the study.

(1) Students' perceptions towards the use of ChatGPT are affected by their genders.

(2) Students' perceptions towards the use of ChatGPT are affected by class level.

The paper presents a review of ChatGPT, and its pros and cons before introducing the Technology Acceptance Model (TAM) which forms the theoretical framework to investigate students' perceptions of ChatGPT in language learning. Quantitative and qualitative data are used to illustrate the research findings, which are expected to be useful for researchers and practitioners to have a more efficient use of ChatGPT to teach and learn foreign languages. The study provides an insight into the students' perceptions of ChatGPT use in language learning, which will give recommendations for teachers, learners and policymakers on how ChatGPT can be used to achieve its effectiveness and adaptability in English language teaching settings in general and the Vietnamese context in particular. The research also contributes to advancements in the use of technology in language learning as well as the broader field of artificial intelligence and natural language processing which presents a vast ground for future research.

Literature Review

ChatGPT and its Merits in Education and Language Learning

The last few years have seen the rise of ChatGPT, a noteworthy milestone in the field of natural language processing. ChatGPT is an advanced, complex and powerful, generative language model that can comprehend and produce natural language (Kasneci et al., 2023; Lund & Wang, 2023; Mhlanga, 2023; Pavlik, 2023). It can produce thoughtful and contextually relevant answers to a question by synthesizing a vast amount of text data. ChatGPT is a versatile application that can perform human-like specific tasks including providing explanations,

answering factual questions, making creative suggestions, and engaging in both formal and informal conversations (Lund & Wang, 2023).

ChatGPT has been widely applied in many fields including education. In education, it can serve as a virtual tutor, offering explanations and guidance on a range of subjects. Rahman and Watanobe (2023) maintain that the ChatGPT model can be a professional tutor with whom learners can argue about the given explanations, solutions, and other suggestions. Therefore, learners receive interactive support from ChatGPT. Jeon and Lee (2023) who investigate the complementary roles of both ChatGPT and teachers in education mentioned that ChatGPT took four roles as material supplier, assessor, interlocutor and assistant. Sallam (2023) indicates some advantages of ChatGPT in healthcare education including developing academic research papers, utilizing healthcare research, personalizing learning, and boosting critical thinking. ChatGPT can facilitate the teaching and learning process and develop students' varied skills including reading, writing, information analysis, critical thinking, problem-solving, and research (Rahman & Watanobe, 2023; Shoufan, 2023). In digital writing, Johinke et al., (2023) claim that technologies including ChatGPT "can be harnessed to reflect the values of education – openness, individual autonomy, and the power of knowledge" (p. 2).

In language learning and teaching, ChatGPT can be a valuable tool in language learning, offering several advantages to both teachers and students. Many authors including Kohnke et al. (2023) and Kohnke (2023) demonstrated how the teacher could use ChatGPT to support their teaching by creating fun and engaging activities and developing teaching materials, translating them into the students' first language to motivate students' interest in learning the topic and promote communication in the classroom. Ali et al. (2023) proposed a model in which teacher could perform a flexible role in creating an enjoyable and interactive learning environment.

For learners, ChatGPT has been increasingly become popular (Hong, 2023). ChatGPT offers an interactive, engaging and productive language learning experience (Baskara, 2023; Kohnke, 2023; Kohnke et al., 2023; Kasneci et al., 2023; Shaikh et al., 2023; Shoufan, 2023). Students can initiate conversations in any topic and receive instant human-like responses from ChatGPT regarding a variety of aspects of language learning including language practice, language skills as well as communication skills. Students can develop their mastery of vocabulary and grammar by requesting explanations of forms, meanings, and uses of a word, a phrase or a grammatical point. Furthermore, ChatGPT can provide authentic written materials for students to improve their reading and writing skills (Baidoo-Anu & Owusu Ansah, 2023; George & George, 2023). Ali et al. (2023) showed that ChatGPT generally motivated learners to develop their reading and writing skills, while it had a neutral impact on their listening and speaking skills. In the meantime, Kohnke et al., (2023) stated that students who engage in regular voice interactions with ChatGPT have improved their pronunciation and listening comprehension. ChatGPT can also translate materials or texts into students' mother tongues, which can provide more language practice opportunities (Ali et al., 2023). As ChatGPT can simulate real-life conversations, students can engage in conversations with ChatGPT on diverse topics, which requires students' fluency and use of appropriate language. The interaction can enhance students' communication skills (Baskara, 2023) in diverse conversations with ChatGPT. Particularly, ChatGPT can offer answers related to cultural aspects, including idioms, customs, or social norms. This promotes students' understanding of cultural issues which are necessary to their communicative language ability. Generally, students can benefit from ChatGPT's feedback on their written language practice exercises to improve their language competence.

ChatGPT provides ample opportunities for student's self-study outside class, focusing on personalized learning experiences with instant feedback. ChatGPT can meet the learning needs of students with varied interests, learning pace, and academic performance (Ali et al., 2023;

Hoang et al., 2023; Mohammed et al., 2023; Kohnke et al., 2023). ChatGPT can identify students' weaknesses in language competence and help them achieve their learning goals (Baskara, 2023) by providing immediate, real-time feedback on students' language use. It can point out students' mistakes and suggest alternatives or improvements (Ali et al., 2023; Mohammed, 2023; Kohnke et al., 2023; Tiili et al., 2023). In this way, ChatGPT helps scaffold students' learning and boosts their performance (Ali et al., 2023). According to Hong (2023), while human feedback may not be efficient due to time-consuming work, ChatGPT is immediate, interactive, and effective. Therefore, students may become more motivated in their learning (Ali et al., 2023) and become more independent in their own learning (Ali et al., 2023; Fauzi et al., 2023; Kohnke et al., 2023).

Challenges of ChatGPT

While acknowledging the benefits of ChatGPT in optimizing the teaching and learning process, some authors refer to ChatGPT as a disruption of academic integrity (Hong, 2023). Students' overreliance on ChatGPT's responses causes great concerns about the originality of their own work (Cassidy, 2023; Pavlik, 2023, Shoufan, 2023), which raises ethical questions about plagiarism generated due to using ChatGPT in education. To reduce this problem, many institutions bring back in-class oral and written examinations and apply relevant rules (Rudolph et al., 2023). Furthermore, although ChatGPT's responses normally demonstrate critical thinking, clarity, precision, coherence, relevance, and depth, they can be inaccurate, biased, and inappropriate (Shaikh et al., 2023). Some authors attributed this to ChatGPT being an unsupervised learning model or the presence of stereotypes in the vast corpora of texts (Baskara, 2023). ChatGPT may not have the cultural awareness to understand human language as well as abstract and complex ideas (Baskara, 2023). ChatGPT's answers are also not properly cited with references (Kohnke et al., 2023). As ChatGPT presents both advantages and challenges, teachers and students need to learn how to effectively monitor and evaluate the use of ChatGPT (Baskara, 2023) or use it ethically and competently. Kohnke et al. (2023) insist on the need for digital competencies, instructions or guidelines for using ChatGPT in teaching and assessment, enhanced awareness of the risks and drawbacks of ChatGPT.

Review of Previous Studies

The use of ChatGPT has been mainly explored from educators' viewpoints (Hong, 2023; Shoufan, 2023) and few studies examine students' reactions or perceptions to see whether there is any resistance by students so that further improvement to ChatGPT, and its uses can be made. Shoufan (2023) highlighted the significance of investigating students' experience in using ChatGPT and their perceptions of it. The author explained that students' perceptions can greatly impact their motivation, engagement, and performance. While positive attitudes can promote students' eagerness to learn and their academic achievement, negative viewpoints of ChatGPT can lead to disengagement, demotivation, and little chance of academic success. However, students' perceptions of ChatGPT have not yet been fully addressed by previous relevant studies (Shoufan, 2023).

It is worthwhile to acknowledge some initial attempts to elicit students' ideas and comments on their use of ChatGPT in education. Rahman et al. (2023) carried out a survey with students and teachers to explore the impact of ChatGPT in a programming course. The study found students had favorable attitudes to ChatGPT which is learner-friendly and beneficial to personalized learning, assessment, and evaluation. Even though the study presented varied information about the benefits as well as threats of ChatGPT, its findings about students' perceptions can be challenged by the lack of coherent data collection and analysis. Furthermore, programming students' opinions cannot be representative for language students.

Shoufan (2023) explored how students in a computer engineering program perceived ChatGPT and assessed its potential benefits and challenges. The study developed a 27-item questionnaire based on the themes and codes identified from students' responses in a previous study. Students demonstrated divided opinions on the demerits of ChatGPT on academic integrity and threat to their studies, jobs, and life. The author concluded that ChatGPT can and should be used in learning while its limitations should be well recognized and addressed. Shoufan's study contributes to research in exploring students' perceptions of education in general by proposing varied themes and topics in the use of ChatGPT.

Ali et al. (2023) who acknowledged a big gap in the literature review about dimensions in the use of ChatGPT in English language learning explored the impact of ChatGPT on learning motivation among teachers and students of English as a foreign language (EFL) in Saudi Arabia through quantitative research design. The study described useful dimensions including enhancing language skills and scaffolding learning. However, it only presented the perceptions of 20 university professors who have diverse backgrounds, motivations, and expectations from the ChatGPT in its early phase. The study did not depend on data collected from students. In fact, Ali et al. (2023) explain that research on the ChatGPT is still in its infancy.

Shaikh et al (2023) which is among very few exploratory studies on the actual use of ChatGPT for language learning uses a questionnaire to ask participants of diverse backgrounds about their feedback on usefulness and effectiveness of ChatGPT after doing a series of tasks related to English language learning with ChatGPT in formal contexts such as conversation, writing, grammar, and vocabulary. The results demonstrated ChatGPT's capability for producing accurate and cogent responses on its own. ChatGPT's conversation interface made it possible to have interactive conversations and write naturally. Because just a small subset of university students majoring in computer science performed the study, their perspectives on the subject may differ to some extent from those of students majoring in English as a second language, for instance.

Within the context of Vietnam, AI technologies including Chatbot and ChatGPT have become an interest to language educators and researchers. Tran and Tran (2023) investigated both teachers' and students' opinions about the role of ChatGPT in enhancing learners' critical thinking, digital literacy, and digital environment navigation. From the perspectives of the participants, the authors revealed that ChatGPT has a role in the enhancement of critical digital literacies. However, participant bias and the small scale of the study, as admitted by the authors, can be a flaw. Ho (2024) presented a comprehensive study on non-major English learners' perceptions and behaviours in using ChatGPT in language learning. The study found favourable attitudes among students who could find ChatGPT to promote their specialised vocabulary learning. The students also become more confident in their learning, using ChatGPT as a translation machine, grammar checker, and paraphrasing tool. Even though these studies offer some meaningful findings about students' perceptions in the use of ChatGPT, future research in Vietnam and other contexts can explore the perceptions of varied types of students, particularly English majors in many other related aspects of using ChatGPT in order to give a more profound statement of the efficacy of ChatGPT in language learning.

There is a vast ground for investigating the use of ChatGPT in language learning at the tertiary level in general and learners' perceptions of it. Hong (2023) suggested that foreign language educators need to discuss the merits, demerits as well as risks of Chat GPT with students rather than avoid the topics. The author calls for further research into learners' acceptance of the new technology as language learners may perceive ChatGPT in different ways. In fact, O'Dea and O'Dea (2023) who reviewed recent literature about the use of AI technologies in higher education including tertiary language education found that there is a low acceptance rate of AI

in higher education due to obstacles at different levels. They particularly recommend the investigation of students' perceptions on AI technology to support language learning.

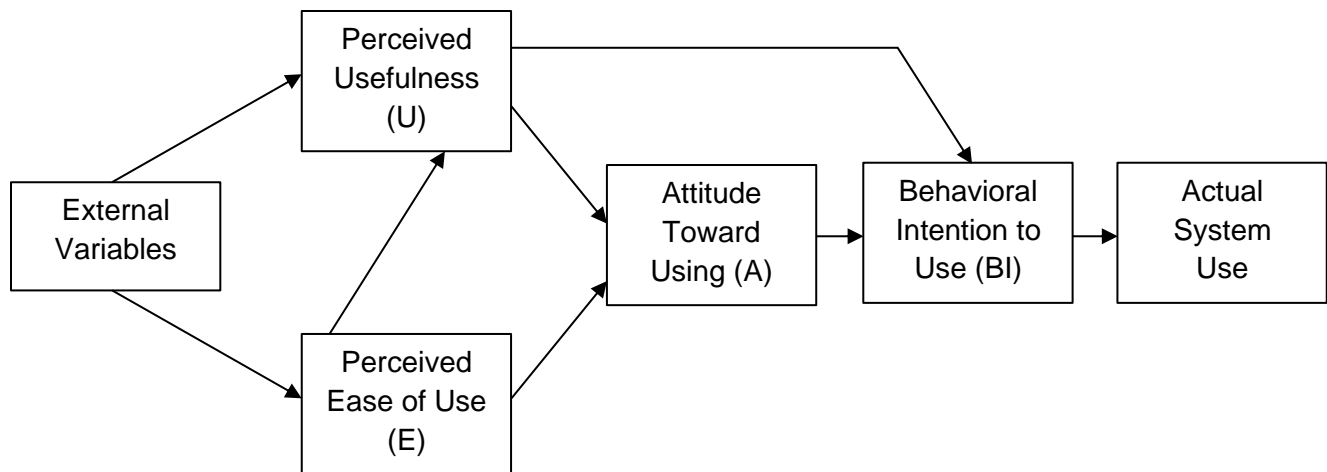
Technology Acceptance Model

The technology acceptance model (TAM) was first proposed by Davis (1989) who investigates the individual technology acceptance behavior in various information systems constructs. Based on the theory of social psychology, the model is intended to study the relationship among cognitive and affective factors and user's application of technology. Technology acceptance involves three stages, starting with external factors triggering cognitive responses (i.e., perceived usefulness and perceived ease of use). Then, an effective response (or the user's intention or attitude toward using technology) is formed, which impacts the user's behaviour. Perceived usefulness and perceived ease of use are two main factors in the model. Perceived usefulness describes a potential user's subjective assessment of an application system's ability to improve performance in their daily lives or at work. Perceived ease of use is the degree to which the potential user anticipates that the technology will be simple to use. External elements, such as social, cultural, and political issues, have an impact on these two aspects. Attitude to use reflects the user's assessment of how desirable it is to utilize a specific information system application while behavioral intention measures the probability that an individual will use the application.

The model implies that the more an application is regarded to be user-friendly, the more probable it is that the user will find it beneficial, which will increase the likelihood that the technology will be accepted. (Davis, 1993; 1998). Generally, both the usefulness and the ease to use of technology affect the behavioral intention, thereby affecting the final user experience.

Figure 1

Technology Acceptance Model (TAM) developed by Davis (1998)

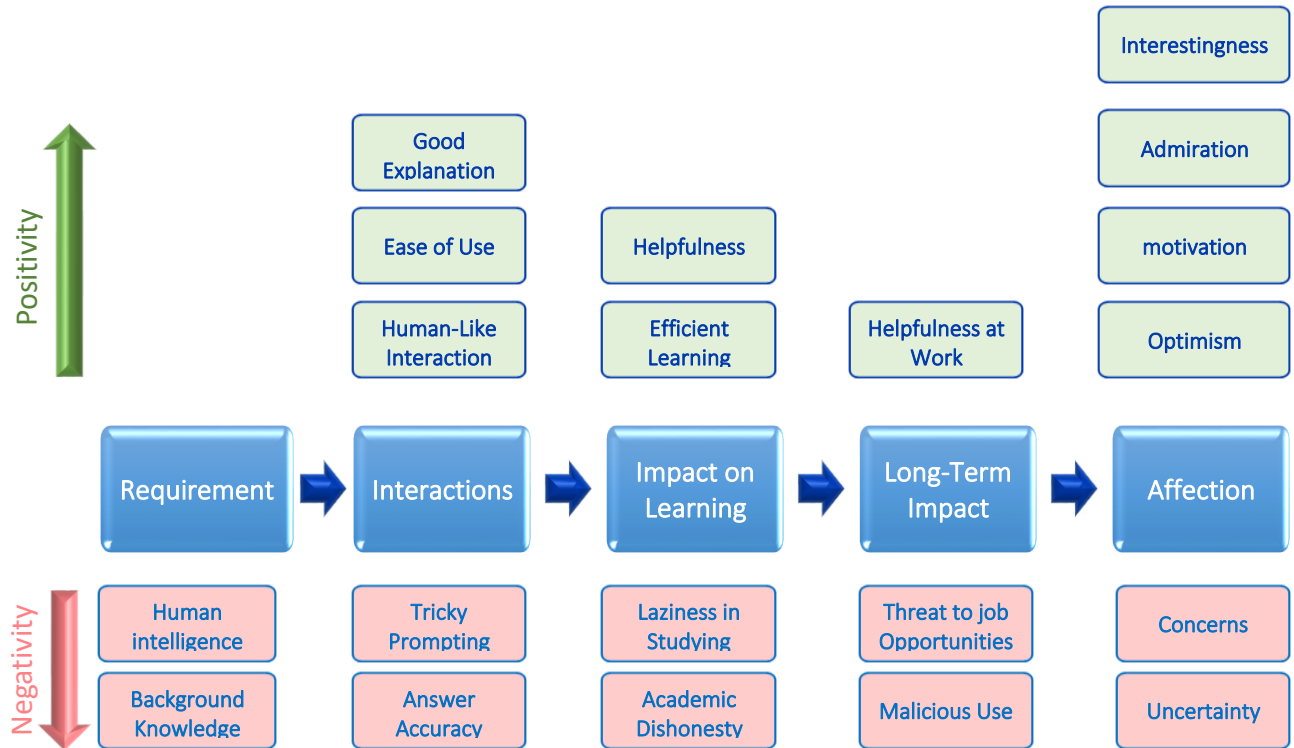


Since its first proposal, TAM has been further developed in many subsequent studies which have proposed new variables. Some examples include "compatibility" (Agarwal & Prasad, 1998), "experience, self-efficacy, perceived risk and social influence" and "long-term and near-term usefulness" (Chau, 1996). To evaluate the use of ChatGPT among senior students in a computer engineering program, Shoufan (2023) who did not explicitly acknowledge the TAM model might adapt TAM constructs flexibly in education. Shoufan's model consists of requirements, interactions, impact on learning, long-term impact, and affection. The model is

presented with detailed elaborations of both positive and negative aspects of the five constructs. Multiple rounds of coding are used to form themes that go through multiple refinements.

Figure 2

Study Summary as a Framework for Using ChatGPT in Education by Shoufan (2023)



This study is largely based on Davis' and Shoufan's models to develop the measurement scale of students' perceptions of ChatGPT in English language learning. Requirement and long-term impact are excluded. University students recruited are assumed to have adequate cognitive abilities and technical skills to perform ChatGPT actions. The study is also limited to students' language learning rather than their future work as part of long-term impact.

Method

The setting of the Research

The research was conducted in August 2023 when the new school year had just started in Vietnam. The study limited itself to universities which educate foreign language students in Vietnam.

Research Approach

A quantitative approach was adopted in the study with the aim of exploring EFL students' perceptions over the use of ChatGPT in English language learning. The quantitative method allowed the researchers to conduct the study on a large scale.

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Research Instrument Development and Validation

As stated in the previous section, the study was grounded in the theory of the TAM model developed by Davis (1998) and further revised by Shoufan (2023). Generally, the study developed a questionnaire on three main constructs including usefulness, ease of use, attitudes, and behaviour intention in relation to constructs which are specific to language learning. In terms of usefulness, students can assess ChatGPT's effectiveness in developing English skills including listening, speaking, reading and writing. In terms of ease of use, students can evaluate the difficulty and convenience of using ChatGPT as well as its interaction, quality of answers and its ability to generate authentic language materials. In terms of attitudes, students can reveal both positive and negative attitudes towards the use of ChatGPT in their English learning. Students can express their admiration for ChatGPT's helpfulness and effectiveness, acknowledging it as a useful complementary learning resource and a vast source of responses. In the meantime, students can reflect on their monitoring of ChatGPT, their confusion, the appropriateness of ChatGPT's answers and academic cheating. Finally, in terms of behavior intention, students can evaluate the comfort of the learning environment with ChatGPT, their motivation and their intention of ChatGPT use inside and/or outside class. The questionnaire concludes with open-ended questions about their other concerns and suggestions for a better use of ChatGPT in language learning.

The questionnaire was first designed with 3 parts. The first part seeks demographic information like genders and class level. The second part consists of 32 items, which were supposed to be divided into 3 dimensions. The first dimension named "Ease of use" has 9 items expressing students' opinions on ChatGPT interaction. The second dimension "Impact on learning" has 16 items. The final dimension "behavior intention" consists of 7 items. The questionnaire has an acceptable reliability with Cronbach alpha .928 for the whole questionnaire, .690 for the first dimension, .900 for the second dimension, and .834 for the final dimension. The third part has 3 open-ended questions.

To identify the statistical eligibility of items, Corrected Item – Total Correlation was calculated. Five items had the value of corrected item-total correlation less than .3; therefore, such items were excluded from the questionnaire. In the next step, Exploratory Factor Analysis (EFA) was processed. In order to have variables with good significant statistics, factor loading was kept at 0.5 instead of the acceptable level 0.3. KMO value is .926, over .5 and the significant level for Bartlett's Test of Sphericity is .000, less than .05, which denotes that EFA is meaningful, and there is a substantial correlation in the data. There are 5 components extracted with Eigenvalues greater than 1. These 5 components explain 59.558 % of the variance. Therefore, it can be concluded that the items of the questionnaire can be divided into 5 components, which are called 5 dimensions in the later part of this article. 5 items make up the dimension "Perceived Usefulness" with a range of values from .53 to .83. The second dimension "Ease of Use" has 7 items with values between .50 and .71. The third dimension "Positive Attitudes" includes 5 items with the values from .51 to .71. The dimension "Negative Attitudes" has 5 items with the range of values from .51 to .79 while the final dimension "Behavior Intention" comprises of 5 items with values between .58 and .735.

Three items were deleted from the questionnaire as they had a value of under .5. The questionnaire now has three parts: Demographic information, Students' perceptions towards the use of ChatGPT, and open-ended questions. The second part has 27 items divided into 5 dimensions: Perceived Usefulness, Perceived Ease of Use, Positive Attitudes, Negative Attitudes, and Behavior Intention.

The level of reliability of the final version of the questionnaire is excellent, with .923 for the whole questionnaire and .833 for the dimension "Perceived Usefulness", .825 for the dimension

“Ease of Use”, .807 for the dimension “Positive Attitudes”, .731 for “Negative Attitudes” and .811 for the final dimension “Behavior Intention”.

Research Participants

The participants of the study were selected on some criteria. Firstly, they must actually use ChatGPT in their process of learning English at the tertiary level. Secondly, their major is English. The online questionnaire on Google Forms was sent to them through email, messenger, or Zalo. The questionnaire had responses from 369 students, among whom are 340 female students (92.2%), and 29 male students (7.8%). The great imbalance in the number of male and female students reflects the normal rate in the language education sector.

221 of them (59.9%) are fourth-year students; 107 (29%) are third-year students, and the rest are 41 second-year students (11.1%). At the time of the research, the first-year students had not started their school year; therefore, there were no first year students taking part in the research. The numbers of students in different class levels reflect that the longer students are at university, the more likely they are to use ChatGPT in their English language learning.

Results

Students’ Perceptions towards the Use of ChatGPT in English Language Learning

Students’ perceptions towards the application of ChatGPT in English language learning are reflected in 5 dimensions: Perceived Usefulness, Ease of Use, Positive Attitudes, Negative Attitudes, and Behavior Intention.

Table 1

Descriptive Statistics of Dimensions

	Mean	Std. Deviation
Perceived Usefulness	3.30	.75
Ease of Use	3.54	.63
Positive Attitudes	3.76	.68
Negative Attitudes	3.34	.66
Behavior Intention	3.43	.74

The mean values for all the dimensions range from 3.30 (Perceived usefulness) to 3.76 (positive attitudes). On a scale 1 to 5, the interval is 0.8 (Interval=N-1/N, N=5). Students’ perception towards the perceived usefulness of ChatGPT has the lowest mean value, denoting that most students selected “neutral” for their answers. In other words, students had neutral opinions on the usefulness of ChatGPT in developing their English language skills.

Table 2

Descriptive Statistics of Perceived Usefulness

	Mean	Std. Deviation
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My English skills have improved due to using ChatGPT.	3.38	.89
The ChatGPT is useful to develop my speaking skills	3.17	1.02
The ChatGPT is useful to develop my writing skills	3.63	.93
The ChatGPT is useful to develop my reading skills.	3.43	.91
The ChatGPT is useful to develop my listening skills	2.92	1.10

Specifically, students have neutral opinions on whether their English skills can be improved using ChatGPT with a mean value of 3.38. Students disagree that ChatGPT can help them develop listening and speaking skills (mean values 2.92 and 3.17, respectively). Yet, they believe that ChatGPT is useful for them to enhance reading and writing skills with mean values of 3.43, and 3.63.

Regarding the second dimension, students perceive that it is easy to use ChatGPT with a mean value of 3.54. As shown in Table 3, students find it easy, and convenient to use ChatGPT (mean values = 3.31, and 3.76 respectively). Furthermore, the mean values for the rest of the items have a range from 3.40 to 3.79, expressing that ChatGPT answers are recognised to be human-like friendly, accurate, authentic, and well-structured.

Table 3

Descriptive Statistics of Ease of Use

	Mean	Std. Deviation
I have no difficulty in using Chat GPT in my language learning.	3.31	.98
Using the ChatGPT to learn English is convenient.	3.76	.90
ChatGPT makes human-like friendly impressions.	3.47	.93
ChatGPT provides good explanations.	3.79	.90
ChatGPT answers are well- structured.	3.65	.90
ChatGPT answers are accurate.	3.40	.83
ChatGPT can generate authentic language materials.	3.40	.89

The second lowest mean value (3.34) belongs to students' negative attitudes towards the use of ChatGPT. Among the 5 items, the first item on the requirement for careful monitoring has the highest mean value with 3.63, followed by the item on the probability of academic cheating facilitated by ChatGPT (mean value=3.45). Yet, students have a neutral viewpoint over the issue of the quality of answers generated by ChatGPT with the mean values between 3.17 and 3.29.

Table 4

Descriptive Statistics of Negative Attitudes

	Mean	Std. Deviation
The use of Chat GPT requires careful monitoring.	3.63	.900
ChatGPT affects learning negatively because I can find answers and solutions without efforts.	3.29	1.029
I am confused about the answers of ChatGPT.	3.17	.864
Chat GPT can produce biased and inappropriate content.	3.19	.918
ChatGPT will make academic cheating easier.	3.45	1.057

Yet, most students have high levels of positive attitudes towards the use of ChatGPT in English language learning with the highest mean value (3.7683). With the mean values from 3.58 to 3.94, most students agree that ChatGPT is a good technological tool functioning as a complementary learning resource and helpful, effective support for language learning.

Table 5

Descriptive Statistics of Positive Attitudes

	Mean	Std. Deviation
ChatGPT has amazing capabilities.	3.75	.86
ChatGPT is a helpful and effective technology for language learning.	3.94	.83
ChatGPT is good as a complementary learning resource.	3.80	.87
Asking follow-up questions helps ChatGPT find the answer.	3.58	.84

In addition, the mean value for the dimension "behavior intention" is 3.43, expressing that most students chose "Agree" for this dimension, which denotes students' intention to use ChatGPT to

develop the English language. Students are found to be interested, and motivated to use ChatGPT as expressed by the mean values in Table 6.

Table 6

Descriptive Statistics of Behavior Intention

	Mean	Std. Deviation
ChatGPT is a comfortable learning environment.	3.64	.89
I feel motivated to use ChatGPT more.	3.43	.92
ChatGPT makes learning English enjoyable.	3.48	.94
I like using ChatGPT to practice English inside the classroom	3.17	.98
I like using ChatGPT to practice English outside the classroom.	3.45	.97

Among 369 students, 233 students (63%) have the wish to keep using ChatGPT for their language learning. According to these students, ChatGPT is useful in generating ideas for their writing tasks, providing them with helpful hints for their reading exercises, as well as authentic materials or guidelines for their language study.

By contrast, 103 students do not want to use ChatGPT (27.9%). These students believe that ChatGPT can be helpful for other subjects, but ineffective with language learning because they are man-made, and there is a lack of interaction, which is very important for developing a language. Reasons for such a decision may be explained by what is found in the open-ended questions. Regarding the question on students' challenges to using ChatGPT, the typical answer is the concern on users' dependence on ChatGPT, leading to reduced creativity in developing productive skills like writing and reading, and laziness. *"It may affect my way of learning since I may rely on it too much if I got lazy and wasn't careful enough."*, one answer cited from a fourth-year student's response. *"I am scared if I use ChatGPT too much because it can make me reduce my imagination and creativity without effort, so it is a big challenge when I take a test without it"*, a third-year student is worried about her use of ChatGPT. The second common challenge for students in using ChatGPT is the accuracy of the information provided.

"Sometimes it can be really tricky to find the best way to express my questions or requests to the chatbot, and if I use inaccurate words, it also results in misleading, unrelated information. Also, I believe that using ChatGPT too frequently would make me rely on the app more and maybe I cannot enhance my skills if I get used to using the chatbot. I think looking for a method to use this app without depending too much on it is essential" (A challenge of a second-year student).

33 students (8.9%) do not know whether they will continue using ChatGPT in the future. The reasons are their insufficient experience with the application of ChatGPT to learn languages.

Gender Difference

Independent sample T Test was employed to test whether genders have any effects on students' perceptions towards the use of ChatGPT to learn the English language. As shown in Table 7, there are some differences between the perception of female and male students when

mean differences are identified. Yet, such a difference is not significant when the significant value is .626, much higher than 0.05. In addition, there is a great imbalance between the number of male and female students (7.8% and 92.2%, respectively) which may impact the result.

Table 7

Gender difference

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Perceived usefulness	Male	29	3.24	.57	.10
	Female	340	3.31	.77	.04
Ease of use	Male	29	3.52	.58	.10
	Female	340	3.54	.63	.03
Positive attitudes	Male	29	3.65	.71	.13271
	Female	340	3.77	.67833	.03679
Negative attitudes	Male	29	3.22	.51	.09
	Female	340	3.35	.67	.03
Behavior intention	Male	29	3.35	.66	.12
	Female	340	3.44	.75	.044

Class Level Difference

MANOVA was applied to test whether the class level (i.e. second year, third-year, fourth-year students) has effects on students' perception towards the use of ChatGPT to develop the English language. As indicated in Table 8, the sig. level is .002, less than .005, meaning that the class level has significant effects on students' perception towards the application of ChatGPT to study the English language.

Table 8

MANOVA Test: Level Difference

Value	F	Hypothesis df.	Error df.	Sig.
.906	2.424	15.000	996.963	.002

To sum up, EFL students surveyed in Vietnam have neutral opinions on the usefulness of ChatGPT to develop the English language, and have a low level of negative attitudes towards it and a high level of positive attitudes towards the use of ChatGPT is recognised. In addition,

students find it easy to use ChatGPT as well as perceive it as a useful tool for their language study, resulting in a high rate of them who keep using it in the future (63%). Genders are identified not to have effects on students' perceptions whereas the class level has certain impacts on students' perceptions.

Discussion

The fast development of technology has brought enormous changes to all fields of life, especially education. The appearance of ChatGPT marks a new era for education in general and language learning in particular (Shaikh et al., 2023; Shoufan, 2023). The findings of the research show that language learners accept the new technological tool though they have not had much experience in using it in their process of learning foreign languages. This is in line with Shaikh et al (2023) who acknowledge ChatGPT as a friendly, accessible, and useful tool from the viewpoints of English language learners. The participants in their study appreciated the usefulness of ChatGPT's prompts while they completed English language tasks. Our study also confirms the promising and practical role of ChatGPT in language learning. However, how to use the tool effectively is of great concern among language teachers and learners. Shoufan (2023) indicated students' lack of background knowledge to provide appropriate prompts and evaluate responses to ChatGPT. Therefore, the author emphasizes that ChatGPT should not be the only source for learning. In fact, Kohnke et al (2023) insist on the need for digital competencies, instructions, or guidelines for using ChatGPT. In our study, neutral results can be because students in the study might have not received adequate guidance on how to use ChatGPT in their language learning before they evaluated ChatGPT's functions. Therefore, it would be beneficial to provide students chances to be exposed to formal instructions in language learning so that the usefulness of ChatGPT can be fully exploited.

With limited experience in using ChatGPT to learn a foreign language, students in Vietnam tend to have neutral ideas on its perceived usefulness, especially when foreign language learning requires much interaction and sources provided may not be guaranteed to be reliable. Students find ChatGPT more useful for learning reading and writing rather than speaking and reading, which is similar to the findings of many other studies including Baidoo-Anu & Owusu Ansah (2023), George and George (2023), Ali et al. (2023), Bin-Hady et al. (2023). While some studies (Baskara, 2023; Kohnke et al., 2023) mention the role of ChatGPT in improving oral competence and interaction/communication skills, this study does not reinstate this idea. This aligns with Ho (2024) who recognises ChatGPT's drawbacks in enhancing English listening and speaking skills and oral communication. This can be explained by the fact that ChatGPT does not support functions to develop these skills or that most students only access free versions of ChatGPT with limited capabilities. It is worthwhile that institutions should invest in technological environments to fully exploit the benefits of AI technologies (O'Dea & O'Dea, 2023). Nevertheless, students are found to be interested, and motivated to use ChatGPT in their language learning, which may promote their independent learning. This aligns with the insights of many studies (Ali et al, 2023; Bin-Hady et al., 2023; Fauzi et al., 2023; Kohnke et al., 2023). ChatGPT helps develop language skills, "improving time efficiency and effectiveness, and providing support and motivation" (Fauzi et al., 2023, p.14889). In the same vein, Shaikh et al (2023) who emphasize the promising potential of ChatGPT in language learning and teaching, maintain that ChatGPT can be used to enhance learners' language skills, scaffold their learning process and provide a support tool for language learning. Bin-Hady et al., (2023) say it can provide an "enjoyable learning environment" (p. 8) and promote "learner autonomy" (p. 9).

In this study, students doubt the quality of ChatGPT answers which require an adequate level of monitoring. The issue of accuracy in ChatGPT's content raises the need to educate students to

effectively create prompts and evaluate ChatGPT's responses (Shoufan, 2023). Some students are concerned about their overreliance on ChatGPT's responses which may not help improve their language skills or they referred to plagiarism related to ChatGPT's use which is also found in other studies (Cassidy, 2023; Pavlik, 2023, Shoufan, 2023). In fact, ChatGPT's "responses are not entirely original but paraphrases of sources that have not been appropriately cited (i.e., plagiarism)" (Kohnke et al., 2023, p. 8). Therefore, Ho (2024) who acknowledged students' concerns about ChatGPT-related plagiarism proposed that it is worthwhile for teachers to raise students' awareness of the issue and guide them to go through different steps in evaluating suggestions by ChatGPT.

Yet, concerns about the application of ChatGPT for foreign language learning do not prevent English majored students in Vietnam from appreciating the adoption of ChatGPT in studying foreign languages. Vietnamese students are identified as having a high level of positive attitudes towards the use of ChatGPT in learning a foreign language. Currently, the rate of Vietnamese students who have the intention to keep using ChatGPT for their language learning is high, which is intricately linked to the moderate rates for usefulness and ease of use, the two deciding factors for students' behavioral intention. ChatGPT has witnessed a high degree of acceptance and favorable attitudes in many fields as well as in language learning. Shaikh et al. (2023) who explored Norwegian students' perceptions of ChatGPT demonstrate that most "participants' ratings were on the higher end of the Likert scale, which shows participant satisfaction with the system usability in terms of ease of learning, ease of use and usefulness" (p. 1592), emphasizing learner intention to use the tool for language learning. Therefore, this well fits TAM that indicates both the usefulness and the ease to use of technology may affect the behavioral intention, thereby affecting the learner experience. To effectively promote ChatGPT in language learning, a higher degree of usefulness is expected, though.

Conclusion

In conclusion, ChatGPT is perceived as a positive tool for learning a foreign language though concerns on its use are still found, especially in developing countries like Vietnam where people have limited access to new technology and ChatGPT was just introduced for a short time (Wu et al., 2023). ChatGPT is found to be a promising learning tool when students taking part in the research are keen on keeping using it for their language learning.

Yet, as ChatGPT is a new tool, making it a more useful and meaningful learning and teaching tool requires teachers' and learners' much effort. Practitioners should be aware of how they will incorporate ChatGPT in their lessons efficiently and learners need to make a wise use of it. To make feasible and effective for the use of ChatGPT in language teaching and learning, teachers and learners need to pay attention to these recommendations. Firstly, new teaching strategies to integrate ChatGPT in the lessons should be explored sufficiently before teachers and learners apply it in their teaching and learning (Shaikh et al., 2023). Applying technology in language teaching has a long history, moving from the initial use of basic technological tools like videos, and non-internet software to the very advanced online ones. Teachers have upgraded themselves with methodologies to integrate technology into language teaching (Vo et al., 2020). As ChatGPT has just been developed, its use in language teaching and learning requires both practitioners and policymakers to work on approaches for the incorporation of AI in general and ChatGPT in particular for effective teaching strategies created (Hoang et al., 2023; Ho, 2024; Lodge et.al., 2023). Secondly, careful monitoring from teachers would be also one matter to be considered for the use of ChatGPT in language learning to avoid being distracted by unreliable information that may be generated by ChatGPT as well as prevent cheating from students with the help of ChatGPT (Lodge et.al., 2023). Thirdly, users should not abuse ChatGPT to avoid being overreliance on it (Fauzi et al., 2023). Over-dependence on technology

can be reduced by students' self-control and teachers' monitoring (Vo, 2023). In addition, human interaction should be kept the priority in language teaching; therefore, a balance between the use of technological tools like ChatGPT and teacher-student interaction can be maintained.

Policy-makers in the educational system are advised to incorporate AI tools like ChatGPT in the existing educational programs, especially teacher education ones. Being able to use technology like AI tools in learning, and then applying them in a teaching career later is a "must" skill a pre-service student needs to possess (Vo et al., 2020). Courses on how to integrate technology in general and ChatGPT, in particular, should be added to teacher education programs.

Together with the updated methodologies to suit the new teaching context, the application of ChatGPT to learn languages will be largely facilitated and enhanced if new functions are continuously added to the chatbox. As shown from this study, ChatGPT is not very useful in developing students' speaking and listening skills due to its lack of functions. In case students can have chances to practise these skills with voice functions, ChatGPT will play a more crucial role as a teaching tool. Even though ChatGPT was created to serve people's needs in a wide range of aspects, educational purposes are advised to play a more crucial role in its development.

This study which has provided information on students' perceptions towards the use of ChatGPT in language learning has set the initial step on the application of ChatGPT in language teaching and learning. Yet, although quantitative research can help gather information on a large scale, the study could have provided more useful information if qualitative data had been collected for deeper understandings and further explaining what has been discovered in the quantitative study. In addition, as ChatGPT has just been applied in language teaching and learning for a short time, students' responses to the questionnaire may not fully reflect reality.

ChatGPT can be employed to facilitate the language teaching and learning process more effectively if teaching methodologies can incorporate the use of ChatGPT as a technology tool in teaching practice. Studies on the application of ChatGPT in enhancing specific language skills like writing, listening, speaking, and reading skills as well as language-related subjects such as translation and interpretation, grammar, or linguistics are in need of further knowledge of ways to apply ChatGPT in language teaching.

Conflict of Interest

The author(s) disclose that they have no actual or perceived conflicts of interest. The research is funded by the Partnership for Higher Education Reform (PHER). No AI has been used to produce this manuscript.

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