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ChatGPT as a Motivational Tool in EFL Classrooms: A Study on Non-English Majors at Ho Chi Minh City Open University

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Abstract

Artificial intelligence (AI) has developed rapidly, and its growing presence in education is increasingly evident. AI chatbots are now widely recognised as useful companions in foreign language learning. This study examines how ChatGPT may influence English language learning in Vietnam by investigating the motivational perceptions of non-English major students at Ho Chi Minh City Open University. A total of 207 students participated in a questionnaire-based survey, reporting their familiarity with and frequency of ChatGPT use. The data were analysed using descriptive statistics and inferential tests to examine differences in motivational patterns across students with varying levels of ChatGPT use. The findings offer insights into learner attitudes and provide implications for integrating AI tools into general EFL instruction.

Keywords ChatGPT, AI chatbots, EFL learning, learning motivation, Vietnamese higher education

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INTRODUCTION

Artificial intelligence (AI) has increasingly shaped educational practices, with AI chatbots being employed to provide learners with new learning experiences. Their ability to generate human-like conversations engages learners in sustained interactions (Kohnke et al., 2023), while their capacity to provide real-time feedback and personalised responses can help reduce anxiety in the learning process (Bibauw et al., 2019; Huang et al., 2022). Unlike conventional tutor-led lessons, chatbots also support flexible, self-paced learning tailored to individual needs (T. T. Dang, 2025; Eav, 2024).

Motivation has been regarded as a key factor driving autonomous learning. For students to actively seek and absorb knowledge, they must find the learning process meaningful and attainable (Du & Alm, 2024). Because chatbots are approachable and non-judgemental, students may feel less reluctant to make mistakes and may become immersed in AI-mediated conversations where they can freely express themselves (Huynh, 2024).

Despite these merits, most empirical studies on Vietnamese learners have centred on English majors (T. P. Dang, 2025; Pham & Tran, 2025), with limited attention to non-English majors (Pham et al., 2025). This gap underscores the need to investigate how ChatGPT influences motivation in this population. In this research, learners' perceptions of usefulness, ease of use, interaction frequency, and attitudes are explored to provide insights for educators and software developers regarding the motivational potential of AI-powered tools in supporting learner engagement and autonomy.

Research Questions

To fulfil the purpose of the study, the survey sought to answer the following research questions.

1. What are non-English major students' perceptions of using ChatGPT in English learning in terms of motivation?
2. Are there any significant differences in motivational levels among students with varying levels of ChatGPT use?
3. How do students perceive the impact and learning outcomes of using ChatGPT in their English learning process?

LITERATURE REVIEW

AI in Language Education

Research has consistently shown that AI tools can contribute to the development of various language skills. Pham et al. (2024) claimed that chatbots supported the development of vocabulary resources, while AI simplification helped learners grasp the general meaning of content (Çelik et al., 2024). In addition, speaking and writing skills were also shown to improve when chatbots were integrated into teaching (Duong & Suppasetseree, 2024; Pratama & Hastuti, 2024). While these findings highlighted the broad educational potential of AI, the current study did not directly measure skill-based outcomes. Instead, it focused on learners' perceptions and motivational responses, as these factors better fit the study design.

AI Chatbots and Their Impact on Learner Motivation and Perception

A large body of research has emphasised the ability of chatbots to reduce anxiety and create a safe environment for English practice, thereby boosting learners' confidence (Bao, 2019; Ding & Yusof, 2025). Chatbots have also been found to enhance learners' sense of social connection during disruptive periods, such as the COVID-19 pandemic, and to support their motivation to pursue academic progress (Abbas et al., 2022; Al-Abdullatif et al., 2023). Not only do chatbots provide personalised and interactive lessons (Adiguzel et al., 2023), but their anthropomorphic features also encourage authentic interaction and self-efficacy (Chang et al., 2010; Wei et al., 2025). Learners generally perceive chatbots positively, valuing their clarity, support, and feedback (Schmidt-Fajlik, 2023; Vo & Nguyen, 2024). Such findings underscore AI's dual role as both a language assistant and a motivational partner.

Concerns and Challenges of AI Chatbot Integration in Language Learning

Despite their merits, AI chatbots also present several challenges. One of the most prominent concerns is growing dependence on AI instruction, as it can hinder opportunities for critical thinking when the majority of tasks are handled by artificial intelligence (T. P. Dang, 2025; Nguyen, 2024; Huynh, 2024). Moreover, some students may not yet have developed sufficient awareness of the pedagogical value of AI and may perceive ChatGPT merely as a utilitarian tool rather than as a genuine learning companion (Tlili et al., 2023; Baidoo-Anu & Owusu, 2023). Chatbots also cannot fully replicate human judgement or adapt to complex learning demands (Duong & Suppasetseree,

2024; Ding & Yusof, 2025). In addition, because chatbots may misinterpret human language, they can produce irrelevant or misinformed responses (Coniam, 2014; Vo & Nguyen, 2024). These concerns highlight the importance of guided and balanced adoption.

Research Gap

While global studies have demonstrated positive impacts of AI on skills and motivation, localised research in Vietnam remains focused primarily on English majors. Non-English majors, who form a substantial segment of tertiary learners, have received little attention. This study addresses that gap by investigating how ChatGPT influences motivation among Vietnamese non-English majors, with attention to perceptions of usefulness, ease of use, interaction, and attitudes.

Theoretical Framework

To analyse the influence of AI on university students' motivation to learn English, a firm theoretical foundation needs to be established. Educational technology, including AI, has been portrayed in many studies as a tool that both supports learning and shapes learning motivation (Kim et al., 2019). In essence, motivation is categorised into intrinsic motivation, when learners willingly engage in lessons out of interest and satisfaction, and extrinsic motivation, when actions are encouraged by external incentives.

A prominent theory that explains the mechanism of motivation formation is Self-Determination Theory (SDT), developed by Deci and Ryan in educational contexts (Liu et al., 2021). According to SDT, each individual has three core psychological needs, namely autonomy, competence, and relatedness. When these needs are met, learners tend to develop stronger intrinsic motivation, thereby maintaining engagement and effort in learning. AI technology, with its ability to provide adaptive and personalised learning experiences, can help satisfy these needs and encourage more voluntary and sustained engagement.

In parallel, Bandura's Social Cognitive Theory emphasises self-efficacy as a key element of motivation (Bandura, 1999). Self-efficacy reflects learners' belief in their probability of success in specific tasks. AI technology can contribute to enhancing self-efficacy by providing instant feedback, posing level-appropriate challenges, and offering scaffolding. These factors can strengthen confidence and cultivate a proactive attitude towards using English.

METHODOLOGY

Participants and Pedagogical Context

This study was conducted at Ho Chi Minh City Open University, with participants drawn from various non-English disciplines. A total of 207 students participated in the survey, comprising 148 first-year students (71.8%), 37 second-year students (18%), 12 third-year students (5.8%), and 9 fourth-year students (4.4%). These data were collected through the demographic questions in the questionnaire.

At Ho Chi Minh City Open University, communicative English lessons are mandatory for all non-English majors. The curriculum is designed with five elementary levels and five advanced levels, covering the four skills of listening, reading, writing, and speaking. Undergraduates are required to complete all these levels to be eligible for the major-specific modules in their respective fields. In English classes, students combine traditional learning methods with AI language models for various purposes, including generating ideas and checking grammar and spelling.

Study Design

This study employed a quantitative, cross-sectional survey design to collect data from participants and explore their motivational responses to ChatGPT within a defined context and timeframe (Creswell, 2012). Through a structured questionnaire distributed to a large number of university students, the study gathered numerical data regarding their frequency of chatbot use and corresponding motivational patterns. Variations among subgroups with differing exposure to ChatGPT were then analysed, offering insights into potential motivational differences without requiring long-term tracking or intervention.

The quantitative component of this study used a questionnaire with a five-point Likert scale, allowing participants to score their level of agreement with each statement from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), to 5 (strongly agree). The adoption of a five-point scale instead of a four-point scale helped preserve the neutral choice, which reflects natural variation in respondents' opinions. Recent research showed that even-numbered response scales are not as reliable as their odd-numbered counterparts because the lack of neutral options may lead to data distortion (Kusmaryono et al., 2022; Mohd, 2024).

Instruments and Procedure

The questionnaire used in this study comprised 13 items divided into four main sections, covering demographic information, frequency of ChatGPT use, perception opinions, and motivation opinions. Perception questions (Q6-Q9) and motivation questions (Q10-Q12) were designed using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), grounded in the framework of Self-Determination Theory (SDT).

The reliability of the measurement scales was assessed using Cronbach's alpha for the two primary constructs, namely perception (alpha = 0.744) and motivation (alpha = 0.749), both exceeding the acceptable threshold of 0.70 (Cortina, 1993). For example, one item from the perception construct is "ChatGPT provides clear and accurate answers to English questions", while one item from the motivation construct is "ChatGPT makes learning English more exciting". Items related to the frequency of ChatGPT use were not tested with Cronbach's alpha because they served a descriptive purpose.

Data analysis was conducted in alignment with the research questions. For Research Question 1, descriptive statistics (mean and standard deviation) were computed for all perception and motivation items to summarise students' attitudes towards ChatGPT in English learning. Q13, *"Do you have concerns that you may rely on ChatGPT instead of thinking in English during your learning process?",* was also analysed together with these constructs to provide a more comprehensive overview.

For Research Question 2, three survey items on ChatGPT usage were employed in subsequent statistical analyses, namely Q3 (frequency of using ChatGPT for learning English), Q4 (using ChatGPT for tasks and assignments in class), and Q5 (using ChatGPT to practise English outside the classroom), in comparison with the perception and motivation constructs.

For Research Question 3, the relationship between perception items (Q6 to Q9) and motivation items (Q10 to Q12) was examined using Pearson's correlation (two-tailed test) to determine whether students' perceptions of ChatGPT's usefulness were associated with their motivational levels in English learning.

Data Collection and Analysis

The questionnaire was distributed to 207 non-English major students at Ho Chi Minh City Open University, with voluntary and anonymous participation. The survey questionnaire used in this study was administered via Google Forms, which was convenient for both participants and researchers. The questionnaire comprised four main sections, covering demographic information, frequency of ChatGPT use, perception opinions, and motivation opinions. Parts 3 and 4 were designed with a five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). Specifically, Section 3 explored university students' perceptions of using ChatGPT in learning English to address Research Question 1, while Section 4 targeted Research Questions 2 and 3 by assessing students' learning motivation. The Google Form was closed once the required number of responses had been received for data analysis.

The quantitative data were analysed using SPSS software. Mean scores, standard deviations, and frequency distributions were analysed, and the results were presented in a descriptive statistics table. Inferential statistics, including independent-samples t-tests and one-way ANOVA, were conducted to examine potential differences in motivation across subgroups with varying levels of ChatGPT usage.

FINDINGS

In response to Research Question 1, Table 1 shows that students generally expressed positive evaluations of ChatGPT as an aid to English learning, with mean scores ranging from 3.03 to 3.65. This chatbot was highly regarded for providing clear and accurate answers (M = 3.54) and for helping students feel less stressed during practice (M = 3.64). Similarly, many agreed that ChatGPT made learning English more exciting (M = 3.47) and encouraged them to seek materials beyond class (M = 3.46).

Table 1: *Descriptive Statistics and Response Distribution for Perception and Motivation Items*

Question	SD	D	N	A	SA	Mean	Std. Deviation
ChatGPT provides clear and accurate answers to English questions	1.9	2.9	43	43.5	8.7	3.54	.774
English learning results have improved thanks to using ChatGPT	3.9	11.1	34.8	41.1	9.2	3.41	.940

Without ChatGPT, English learning would be more difficult or less motivating	10.1	19.3	38.6	21.3	10.6	3.03	1.114
ChatGPT's responses are natural to keep learning English engaged	5.8	6.3	48.8	31.9	7.2	3.29	.909
ChatGPT makes learning English more exciting	3.9	6.3	40.1	38.2	11.6	3.47	.918
ChatGPT helps students feel less stressed and anxious when practicing English	2.9	6.8	27.1	49.8	13.5	3.64	.902
ChatGPT motivates students to seek English materials outside of class	4.3	8.2	38.2	35.3	14	3.46	.979
Concern about reliance on ChatGPT instead of thinking in English during studies	6.3	6.3	31.9	27.1	28.5	3.65	1.143

***Note**: Values for response options represent percentages. SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree.*

Notably, the highest mean score emerged from the concern about over-reliance (M = 3.65), showing that students were aware of the potential risks of ChatGPT despite its benefits. In contrast, the lowest mean score was recorded for the item concerning whether learning English would be more difficult without ChatGPT (M = 3.03), indicating mixed views on the necessity of the tool.

Table 2: *One-Way ANOVA Results for the Relationship between ChatGPT Usage Frequency (Q3) and Motivation*

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	4.016	3	1.339	2.351	.074
Within Groups	115.588	203	.569		
Total	119.604	206			

In response to Research Question 2, the result from a one-way ANOVA showed no statistical significance in English learning motivation among groups of students with varying degrees of ChatGPT use ($F(3, 203) = 2.351$, $p = .074$). In other words, whether students used ChatGPT more or less frequently, according to Q3, did not make a significant difference in learning motivation. In contrast, further analyses with the other two usage items revealed significant effects. Q4, using ChatGPT for tasks and assignments in class, showed differences in motivation across groups ($F(3, 203) = 3.879$, $p = .010$), and Q5, using ChatGPT to practise English outside the classroom, demonstrated an even stronger effect ($F(3, 203) = 14.326$, $p < .001$).

Table 3: *Independent-Samples T-Test Comparing Motivation Scores between Low and High ChatGPT Usage Groups*

		t-test for Equality of Means					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Motivation_mean	Equal variances assumed	-2.430	205	.016	-.35179	-.63724	-.06633

To further examine this issue, an independent-samples t-test was conducted to compare learning motivation between students with low ChatGPT usage (Never + Occasionally) and those with high usage (Frequently + Very Frequently). Levene's Test for Equality of Variances indicated that the assumption of equal variances was not violated ($F = 2.126$, $p = .146$). The results showed that there was a statistically significant difference between the two groups ($t(205) = -2.430$, $p = .016$). Specifically, the group of students who used ChatGPT more frequently reported higher levels of motivation ($M = 3.58$, $SD = 0.71$) than the group who used it less often ($M = 3.23$, $SD = 0.94$).

Table 4. *Correlation between Perception and Motivation of EFL students when using ChatGPT*

		Motivation	Perception
Motivation	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	207	207
Perception	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	207	207

In response to Research Question 3, the correlation between perception items and motivation items was analysed using Pearson's correlation coefficient. The results showed that the relationship between these two variables was strong and statistically significant ($r = .671$, $p < .001$). In other words, students with more positive perceptions of the impact of ChatGPT on their English learning also showed higher levels of learning motivation.

DISCUSSION

The findings indicate that non-English majors generally hold positive perceptions of ChatGPT, viewing it as a useful tool for reducing anxiety, increasing excitement, and enhancing engagement in English learning. This aligns with previous studies positing that AI chatbots can provide a friendly, non-threatening environment and instil intrinsic motivation (Bao, 2019; Ding & Yusof, 2025). Moreover, the strong correlation between perception and motivation ($r = .671$) supports the Self-Determination Theory proposition that positive experiences can trigger sustainable motivation (Deci & Ryan, as cited in Liu et al., 2021).

However, the ANOVA analysis showed that overall frequency of use (Q3) did not make a significant difference in motivation, while use for learning objectives and practice outside the classroom (Q4, Q5) had a clear impact. This suggests that it is not the general level of exposure but the way in which ChatGPT is integrated that influences motivation. This interpretation is consistent with Pratama and Hastuti (2024), who state that technology works when linked to autonomy needs and specific learning goals. Notably, the t-test results confirmed that the regular user group had higher levels of motivation ($p = .016$), suggesting that ChatGPT can support students' active access to learning resources outside the classroom. This result aligns with the findings of Abbas et al. (2022) and Adiguzel et al. (2023), which indicate that chatbots help expand learning opportunities and enhance engagement.

Alongside the benefits, students also expressed concern about over-dependence on AI, consistent with warnings in many studies that relying on chatbots can hinder critical thinking and autonomy

(Nguyen, 2024; T. P. Dang, 2025). This situation calls for lecturers and instructors to integrate ChatGPT as a supplement rather than a replacement and to provide students with guidelines for using it critically and selectively.

One notable point in the survey results is that the "Neutral" response rate in many categories is quite high, even surpassing the other options. This may reflect two possibilities. First, because they are non-language majors, the students may have limited English proficiency, making it difficult for them to comprehensively evaluate the effectiveness that ChatGPT brings to the learning process (Baidoo-Anu & Owusu, 2023). In other words, learners may not feel competent enough to determine clearly how ChatGPT supports their skills. Second, some students may not be deeply interested in integrating ChatGPT into their learning and may see it only as a convenient tool among many others (Tlili et al., 2023). The "neutral" attitude therefore reflects a pragmatic mindset rather than a commitment to technology-based learning. In addition, previous studies have warned that access to new technology can create both benefits and concerns, especially when learners have not yet learnt how to benefit from it and avoid dependence (Coniam, 2014; Çelik et al., 2024; Vo & Nguyen, 2024; Duong & Suppasetseree, 2024). Therefore, the high "neutral" rate is not only a signal of unclear awareness but also indicates a need for lecturers to guide, encourage, and provide specific instructions for students to use ChatGPT consciously and effectively.

CONCLUSIONS AND IMPLICATIONS

This research suggests that ChatGPT can play an important role in promoting motivation in English learning among non-English majors. The survey results showed that the majority of students gave positive evaluations of ChatGPT's usefulness and its anxiety-reducing and excitement-building capacities. In particular, the strong correlation between perception and motivation suggests that positive learning experiences with ChatGPT can foster sustained engagement in foreign language learning. However, a significant portion of students still chose the "neutral" option, reflecting that they do not fully perceive the value of ChatGPT or see it only as a general utility tool. This is an important signal that needs to be considered in technology implementation strategies.

Academically, this study provides additional empirical evidence for research on AI in language education, specifically among Vietnamese undergraduates who are not English majors and have received insufficient research attention. This gap is partly addressed by the research results, which also open a new approach to considering language motivation in a technological context.

Practically, the results suggest that lecturers and educational coordinators should integrate ChatGPT as an additional tool to facilitate self-study and participation in activities within and beyond the classroom. However, guidance on selective use, critical thinking, and avoiding over-reliance is essential.

Despite offering many valuable insights, this study is limited to a specific sample group and is based on self-reported data. Future research on this topic could be scaled up, apply experimental designs, and compare ChatGPT with other AI tools to provide a more comprehensive view.

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APPENDIX 1

A Survey on the Impact of ChatGPT on Non-English Major Students' English Learning Motivation

Part 1: General information Please provide your detail information below.	
Description	**Detail**
1. Gender:	☐Male ☐Female
2. Year of study:	☐1st year ☐2nd year ☐3rd year ☐4th year
3. How often do you use ChatGPT for English learning?	☐Never used ☐Occasional (1–2 times/month) ☐Frequently (1–2 times/week) ☐Very frequently (almost every day)
4. Do you use ChatGPT primarily to assist with class assignments or tasks?	☐Rarely ☐Sometimes ☐Often ☐Very often
5. Do you use ChatGPT to practice your English skills	☐Rarely ☐Sometimes

(writing, speaking, reading or listening) outside of class?	☐Often ☐Very often

Part 2: Perceptions of ChatGPT in English Learning
Please choose ONE response that best matches with your opinion.

Statements	Responses				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
6. Does ChatGPT provide clear and accurate answers to your English questions?	○	○	○	○	○
7. Do you feel your English learning results have improved thanks to using ChatGPT?	○	○	○	○	○
8. Without ChatGPT, would your English learning be more difficult or less motivating?	○	○	○	○	○
9. Are ChatGPT's responses natural enough to keep you engaged in learning English?	○	○	○	○	○

Part 3: Learning motivation when using ChatGPT in English learning
Please choose ONE response that best matches with your opinion.

Statements	Responses				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
10. Does ChatGPT make learning English more exciting?	○	○	○	○	○
11. Does ChatGPT help you feel less stressed and anxious when practicing English?	○	○	○	○	○
12. Does ChatGPT motivate you to seek English materials outside of class?	○	○	○	○	○
13. Are you worried that you might rely on ChatGPT instead of thinking in English yourself during your studies?	○	○	○	○	○

APPENDIX 2

Reliability Test: Perceptions of ChatGPT in English Learning

Case Processing Summary

		N	%
Cases	Valid	207	100.0
	Excluded[a]	0	.0
	Total	207	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.744	4

Reliability Test: Learning Motivation When Using ChatGPT in English Learning

Case Processing Summary

		N	%
Cases	Valid	207	100.0
	Excluded[a]	0	.0
	Total	207	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.749	3