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Investigating College Students' Attitudes and Perceptions of Using ChatGPT in Writing Language Essays

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Abstract
Since its release in November 2022, ChatGPT has proved useful in numerous aspects of life, including education, where it promises to offer great opportunities to students, particularly in the field of language learning. However, several concerns have arisen regarding its effect on students' creativity, privacy, and academic integrity. Employing a quantitative descriptive research design, the present study investigates the attitudes and perceptions of college students towards the use of ChatGPT in writing essays for language courses with particular emphasis on their perceived usefulness, ease of use, and ethical appropriateness. It also attempts to uncover the concerns they may have about using ChatGPT. Knowing these attitudes is crucial for a more informed decision-making process, as they would provide valuable insights to stakeholders on the academic and ethical aspects involved in integrating ChatGPT into language learning. Drawing upon the Technology Acceptance Model framework (Davis, 1986, 1989), data was collected using a questionnaire that was taken by 521 university-level students from different backgrounds. The findings reveal overall positive attitudes towards usefulness, ease of use and ethical appropriateness, with the majority of participants favoring institutional acceptance of the application. On the other hand, participants voiced concerns about the future effect of using ChatGPT on higher-order thinking skills. The study recommends that educators and stakeholders propose new regulatory practices, educational techniques, and assessment methods that help mitigate the limitations of these newly introduced AI tools and incorporate them effectively to enhance the learning process.

Keywords: Artificial Intelligence, Artificial intelligence ethics, Chatbots, ChatGPT, Higher-order thinking skills, Language essays, Large Language Models, Technology Acceptance Model
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Introduction

Artificial Intelligence (AI) has had an immense effect on all aspects of human life and society at large, including communication, health, finance, entertainment, and education. The evolution of Natural Language Processing (NLP) has led to the development of large chatbots. A chatbot is "a computer program that simulates a conversation with users through natural language or text, giving the illusion of communicating with a human" (Shoufan, 2023, p. 38805). Chatbots are emerging in a range of application domains, such as customer service, health, education, and work support to name but a few (Haugeland et al., 2022).

A remarkable milestone in the field of NLP was the launching of ChatGPT (Generative Pre-trained Transformer 3) by OpenAI in November 2022. This large-scale chatbot collected one million users in only three days from its launch (Fabella, 2023). It is built upon a Large Language Model (LLM) and has undergone several modifications through the use of machine learning techniques to improve its capabilities in responding to different queries in an efficient and human-like manner that has sparked a lot of interest (Taecharungroj, 2023). Using sophisticated algorithms and deep learning methods, not only can it imitate human conversation, but also play games, compose music, produce computer code and write essays and even poetry. The application can be accessed via the website, smartphone app, or messaging service (Örnfelt, 2023). The ease of access to this application has created a shift in the focus of research in various fields including education.

Given ChatGPT's growing presence, it is important to examine students' attitudes toward this emerging technology. There is a rapidly expanding body of research on ChatGPT as one of the leading AI models. However, Örnfelt (2023) maintained that studies of users' attitudes towards AI applications are not keeping up with the fast pace at which the field is swiftly advancing. Public attitudes play a crucial role in the adoption of any new technology (Bodani et al., 2023). Continuing to implement new technologies without monitoring public attitudes towards them can result in a serious knowledge gap (Örnfelt, 2023).

The decision-making process in the realm of higher education should be based on the attitudes and practices of all stakeholders involved in the learning process including students themselves (Huallpa et al., 2023; Malmström et al., 2023). To understand the effects of ChatGPT on language teachers, learners, and society, it is essential to conduct investigations using surveys, interviews, and other various qualitative or quantitative methods. The results of these studies will provide valuable insights to stakeholders on the academic, ethical, and social consequences of integrating ChatGPT into language learning, address its limitations, and maximize its potential in this field.

The current study thus aims to investigate the attitudes of university-level students towards the use of ChatGPT defined by their perceived ease of use and usefulness of the application as well as their perspective of the ethical appropriateness of its use in the EFL (English as a Foreign Language) context and the concerns they have towards its use. The following research questions are addressed:

1. What is the student's attitude towards the use of ChatGPT in writing essays for language courses as defined in:
    a. Perceived ease of use?
    b. Perceived usefulness?
2. To what extent do students perceive ChatGPT as an ethically appropriate tool in writing essays for language courses?
3. What are the concerns that the students have in association with the use of ChatGPT?

Literature Review

Large language models have a wide range of potential benefits for all education levels, in terms of both learning and teaching. ChatGPT offers great potential for the learning process, including providing information, completing assignments, and recommending research resources (Aljouni, 2023). It facilitates group work and assists learners with disabilities, in addition to supporting novel methods of instruction including distance and individualized learning.

On the teachers' side, ChatGPT can be used in preparing lesson plans, assessing students, and developing professional skills (Huallpa et al., 2023; Shoufan, 2023). Applications include designing educational content and enhancing the opportunities of digital learning environments, such as Augmented Reality (AR) and Virtual Reality (VR) (Kasneci, 2023).

ChatGPT can be useful to language learners in many aspects. It can be used to encourage authentic language, offer personalized learning, and act as a personal language tutor. This may serve to enhance the four skills, improve grammar accuracy, and expand vocabulary (Baskara & Mukarto, 2023; Hong, 2023). The application can be used in developing learners' language proficiency through immersion and contextualized language practice. For writing specifically, it assists in generating ideas, checking sentence structure and providing tips for refining the quality of written work (Bakmeedeniya, 2024). Indeed, students have listed several advantages of using ChatGPT for language learning including more accessible resources, increased motivation, and interactive feedback (Prasetya & Syarif, 2023). Although a few studies have explored the use of ChatGPT in education, a thorough investigation of the impact of using ChatGPT in the EFL context needs to be carried out.

Challenges

Like any new technology, large language models do not come without shortcomings. Key challenges include bias, copyright issues, overreliance on the model, as well as data privacy and security risks. The cost of training and maintenance, sustainable usage, and lack of expertise are also among the main issues. Furthermore, most research about LLMs is done in the English language, which raises the question of whether this will leave non-English speaking users at a disadvantage (Kasneci, 2023).

Various researchers have raised ethical concerns regarding the use of ChatGPT (Farhi et al., 2023; Huallpa et al., 2023). Those believe that it is likely to harm students' Higher-Order Thinking Skills (HOTS) and scientific integrity. Another concern relates to the potential of

unreliable or biased outcomes. Ethical and legal issues also include copyright infringement, transparency, and plagiarism (Aljouni, 2023).

Following several complaints about cheating and misuse incidents, some educators have warned that ChatGPT poses serious threats to students' development of critical thinking and writing abilities (Hong, 2023, p. 37). Language teachers in particular are worried about AI-generated writing that cannot be detected by existing plagiarism-checking software (Hong, 2023). Prasetya and Syarif (2023) also noted that relying on ChatGPT for language learning can hinder interpersonal communication skills, especially in speaking and listening. Baskara and Mukarto (2023) even pointed out the possible risk of job loss in the language teaching profession.

Where writing in particular is concerned, Younes et al. (2024) pointed out several challenges faced by Malaysian university students in using ChatGPT for writing assignments. These include the inability to express unique writing skills, dealing with inaccurate citation formats, as well as difficulty revising ChatGPT-generated responses.

Public Attitudes to ChatGPT

As regards public attitudes, Bodani et al. (2023) explored the attitudes of people above 18 years old toward ChatGPT in Karchi, Pakistan. The study focused on the knowledge, attitudes, and practices of the public and reported that the majority believe that relying on the application negatively affects their cognitive abilities. Another attempt to explore public opinions about ChatGPT was conducted on social media by Örnfelt (2023) who collected textual data from Twitter and Reddit and analyzed it using a sentiment analysis tool. The findings revealed an overall favorable disposition among users despite pointing out a number of negative aspects including threats to job opportunities and facilitating cheating.

ChatGPT in Higher Education

Although ChatGPT was launched only less than two years ago, several scholars were tempted to investigate students' attitudes in different contexts and different parts of the world. In the context of higher education, different theoretical models were employed to examine students' attitudes to this new technology. Using the ABC model which comprises three components (affective, behavioral, cognitive), Aljouni (2023) examined students' attitudes towards ChatGPT at the University of Jordan. The study found that the majority of students believed that ChatGPT facilitates the learning process, whereas a smaller portion of students voiced concerns about the reliability of its outcome and experienced discomfort and anxiety while using it.

On the other hand, the Technology Acceptance Model (TAM) was adopted by Yilmaz et al. (2023) to study the perception of university students in Science and Mathematics majors in Kazakhstan to ChatGPT. The findings point to an overall positive attitude among participants. Interestingly, the initial questionnaire for the study was generated using ChatGPT itself using the prompt "*Could you create a questionnaire to assess students' perception of ChatGPT?"* which was subsequently edited and filtered.

Strzelecki (2023) examined Polish university students' acceptance of ChatGPT using the Unified Theory of Acceptance and Use of Technology (UTAUT2). The study also included an extension of Personal Innovativeness to examine its effect on Behavioral Intention and Use Behavior. The findings revealed that Habit has the strongest influence on Behavioral Intention, which, in turn, has the greatest effect on Use Behavior.

Farhi et al. (2023) investigated the use of ChatGPT in three universities in the United Arab Emirates (UAE) drawing upon measures and scales from previous studies. The findings revealed that ChatGPT significantly affects students' concerns and perceived ethics. However, the results pointed to students' concerns about over-reliance on ChatGPT which would negatively impact their progress. In the UAE as well, Shoufan (2023) conducted a two-stage study of the attitudes of senior computer science students to ChatGPT. Students were first asked to evaluate the application in their own words and their responses were then coded and used to derive a questionnaire. The study concluded that ChatGPT can be used in education provided that students receive enough guidance about its shortcomings.

Fabella (2023), on the other hand, attempted to discover the attitudes of Filipino college students to ChatGPT using survey items based on positive and negative features of the application selected from online sources. Although most respondents moderately agreed with the stated positive features, the majority also agreed to some extent with the negative features, indicating that ChatGPT may have serious drawbacks.

Malmström et al. (2023) conducted an empirical study to investigate the use of Chatbots and AI-based learning tools by tertiary-level students in Swedish universities. The results pointed to an overall positive attitude towards the use of chatbots by students who found them useful for enhancing their learning process. Nevertheless, the majority of students expressed concerns about their potential impact on education in the future. Huallpa et al. (2023), on the other hand, focused on the ethical considerations involved in using ChatGPT in academic settings with special emphasis on Latin American higher education institutions. The findings highlight the complex interplay between cultural norms, individual beliefs, and ethical problems involved in the integration of ChatGPT in higher education.

ChatGPT in Language Learning

Within the context of language learning in particular, Liu (2023) evaluated the attitudes of Chinese university students' towards utilizing ChatGPT for learning English and their perceptions regarding its pros and cons. The findings revealed that although most students consider the application a useful tool for language learning, they are concerned about information security.

Baskara and Mukarto (2023) also explored the potential benefits and challenges of using ChatGPT in language learning in higher education. The authors listed several examples of benefits and applications for using the application in language learning and teaching while acknowledging a number of limitations, especially ethical and social challenges, the difficulty of handling complex concepts and the substitution of human language teachers.

A number of studies were also conducted in the Arab world to explore the use of ChatGPT in language learning. Alsalem (2024) reported a high level of perception and a positive attitude of Saudi EFL students towards the use of ChatGPT to enhance English speaking skills. Similarly, a study by Alharthi (2024) revealed that Saudi students held a moderately positive view of ChatGPT, believing that it improves understanding and communication abilities in English language learning. Ease of use was also found to play an important role in motivating sustained use of the system. The results of Mugableh (2024) also suggest that the use of ChatGPT-generated exercises leads to strengthening vocabulary building and word families.

Where academic writing is concerned, ChatGPT can be beneficial for language learners in various aspects, particularly for idea generation, storytelling, as well as evaluating essays and providing feedback (Jen & Salam, 2024; Younes et al., 2024). Ali et al. (2023) also found that using ChatGPT encourages learners to develop their reading and writing skills, whereas no significant impact on motivation was reported in the case of listening and speaking skills. Aljuaid (2024) also argued that AI tools can be used to enhance academic writing instruction, especially in terms of grammar and style, but warned against its impact on creativity and critical thinking. Similarly, Al-Zubaidi et al. (2024) found that whereas Moroccan university students acknowledge the benefits of using ChatGPT for academic writing, educators believe that students still lack the proper training and guidance on how to use it appropriately.

Having introduced the above scholarly endeavors and despite the fast-growing popularity of the application, research into how students perceive and utilize ChatGPT for language learning is still scarce (Strzelecki, 2023), particularly in the Arab world. It would thus be interesting to explore the attitudes and perceptions of college students to the use of ChatGPT in writing essays for language courses, especially in the Egyptian context. To the researchers' knowledge, this issue has not been addressed until the date of writing the present study. Thus, shedding light on this aspect within the Egyptian educational setting may definitely serve to provide the foundation for future research and useful insights for decision-making.

Methodology

Theoretical Framework

Granić (2023) states that among the many frameworks devised to assess the usage and adoption of technologies assisting in learning and teaching, the Technology Acceptance Model (TAM) is "the most influential model and leading scientific paradigm in investigating acceptance of educational technology by students, teachers, and other stakeholders" (p. 138). Studies on the acceptance of educational technologies have provided empirical validation for TAM. Examples of these technologies include Learning Management Systems (LMS), Virtual Reality (VR), mobile learning, and social media (Granić, 2023).

TAM was devised by Davis (1986, 1989) based on the psychological Theory of Reasoned Action (TRA) as a reliable model to predict the actual usage of any new technology with the assumption that a person's attitude towards a system will determine whether they will choose to

use it or reject it. According to the TAM, the attitude of users and their usage are primarily determined by two factors: perceived usefulness and perceived ease of use. Davis (1986) defines attitude as the degree to which a person believes that using a given technology would enhance their performance. He also defines usage as the degree to which a person believes that using a given technology will require little effort.

Over the years, TAM has undergone modifications that have contributed relevant constructs to the original model, such as perceived enjoyment, conformity behavior, and self-esteem (Granić, 2023). It is worth noting that perceived usefulness and perceived ease of use represent "people's subjective appraisal of performance and effort, respectively, and do not necessarily reflect objective reality" (Davis, 1989, p. 335).

Thus, the current study employs TAM as a theoretical framework to examine the EFL students' attitudes towards using ChatGPT for writing essays. The TAM constructs are crucial to the context of the current study, as students' willingness to use the new technology largely depends on their perceptions of its ease of use and usefulness. Furthermore, the TAM provides a structured approach for analyzing various factors influencing user satisfaction, offering a clearer foundation for recommendations. Additionally, this study extends the use of TAM by incorporating ethical appropriateness and concerns related to privacy, security, and impact on HOTs, all of which are crucial in the adoption and use of emerging technologies.

Participants

The current study included 521 Egyptian university-level students aged between 17 and 22 years, from diverse educational backgrounds and disciplines, with the vast majority (94.4%) studying at the Arab Academy for Science, Technology, & Maritime Transport (AASTMT) in Alexandria, Egypt. This study aimed to employ census sampling by inviting all first- and second-year students enrolled in English for Academic Purposes (EAP) courses across various colleges to participate. However, since participation was voluntary, the final dataset represents a self-selected sample of respondents.

Figure One provides an overview of the fields of study of the participants. Students at Colleges of Engineering and Computer Science typically study English for Academic Writing as a core course that aims to enhance their proficiency in writing and organizing academic essays or reports.

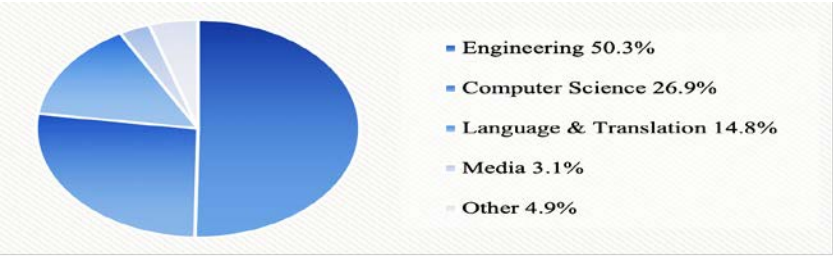


Figure 1. Participants' fields of study

Research Instruments

In the current study, a questionnaire was designed according to the TAM framework, which primarily relies on perceived ease of use and perceived usefulness to determine users' attitude towards a particular system and their intention to use it.

The five-point-likert scale questionnaire was divided into five sections and based on the TAM framework (Figure Two). The first section of the questionnaire included questions on demographic information including age, gender, field of study, and prior use of ChatGPT for writing college essays.

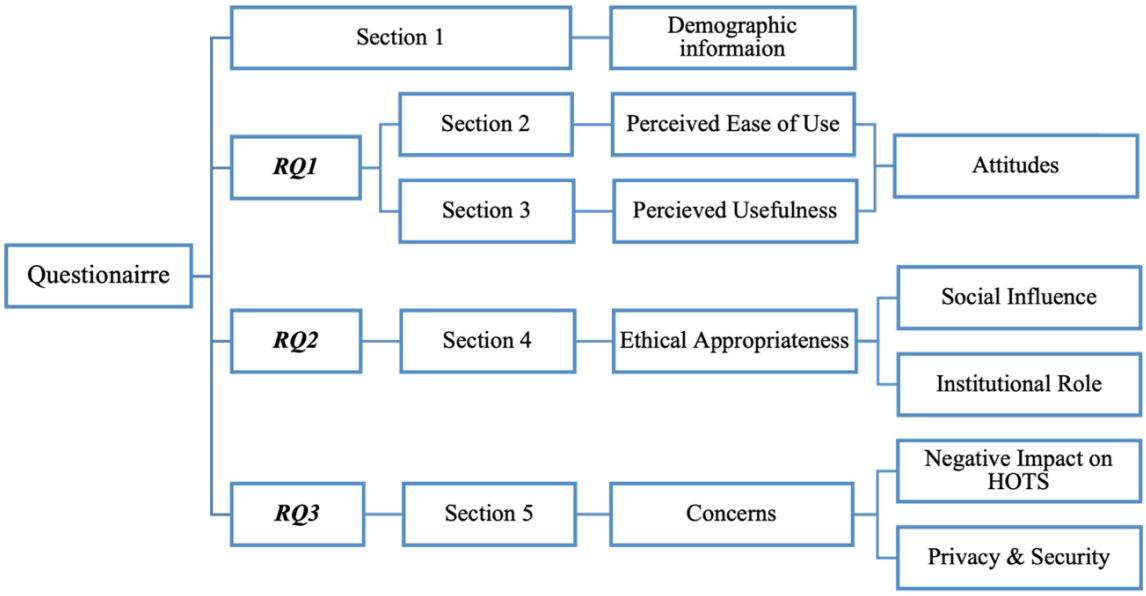


Figure 2. Questionnaire sections

Granić (2023) defines perceived ease of use as the extent to which a user believes that utilizing a particular technology will require minimal or no effort. Granić identifies various factors that can influence ease of use, such as self-efficacy and system quality, which also includes the time the system saves while finishing a task. The factors suggested by Granić complement those proposed by Venkatesh et al. (2003), which encompass performance expectancy and effort expectancy. The ease-of-use section of the questionnaire in the current study focused on questions targeting these four factors.

The third section of the questionnaire focused on the perceived usefulness of ChatGPT. Davis (1989) defines perceived usefulness as the extent to which a user believes a particular technology can help them improve their job performance. Granić (2023) also highlights that usefulness is directly related to the perceived quality of the final task. The third section, thus, focused on questions related to the efficacy of ChatGPT in enhancing the quality of students' writing and the grades they attain through its utilization.

Venkatesh et al. (2003) emphasized the significance of social influence – or the subjective norm – as an important factor used in the TAM framework to determine attitudes towards using any new technology. They defined social influence as the extent to which an individual believes that significant people in their life expect them to utilize the new system. Venkatesh et al. (2023) also highlighted the importance of the role played by the institution in shaping attitudes towards the use of technology. Section four of the questionnaire utilizes questions that target social influence and institutional role as components of the ethical appropriateness of using ChatGPT.

The fifth and final section of the questionnaire addresses potential concerns related to the use of ChatGPT. Farhi et al. (2023) raised a concern about the use of ChatGPT and its potential negative impact on students' HOTS and scientific integrity. Yilmaz et al. (2023) raised another significant concern involving privacy and security. The fifth section of the current study focused on students' perceptions of two key factors: the potential negative impact of HOTS and issues related to privacy and security.

Research Procedures

The researchers administered the questionnaire using Google Forms. Twenty teachers at AASTMT facilitated its dissemination by distributing it among students enrolled in EAP courses in their first or second year in various colleges at the AASTMT. The questionnaire was initially deployed in April 2024 and remained open for new responses for 45 days. The participants were informed of the aim of the study, and their participation was voluntary. The first section of the questionnaire included a question about whether the student had previously used ChatGPT in writing college essays. Out of 521 respondents, 272 (52.2%) stated that they had previously used it. This percentage is much higher than previous studies reporting only 25% of the usage rate in Arab countries (Sallam, 2024), possibly indicating a significant increase in ChatGPT usage among university students. Only those participants who had previously used the application were allowed to complete the four other sections of the questionnaire.

Findings

This study aimed to examine students' attitudes towards using ChatGPT for writing college essays, their perception of its ethical appropriateness, and their related concerns. The analysis of the questionnaire responses unveiled significant findings related to the examined variables. The following sections include detailed frequencies and percentages of participants' responses for each section of the questionnaire.

Attitudes Towards Using ChatGPT

The first research question examined students' attitudes towards using ChatGPT, which were defined by two main variables: perceived ease of use and perceived effectiveness. The analysis of average questionnaire responses for all seven questions in the perceived ease of use

section revealed that 84% of participants either strongly agreed or agreed that ChatGPT is easy to use with the majority (47%) selecting the "Agree" option as shown in Table One. The participants agreed that ChatGPT is easy to learn and user-friendly for the following reasons: (1) it requires minimal effort, (2) anyone can use it, (3) it helps them write their essays more quickly and efficiently, and (4) they can use it effectively.

Table 1. *RQ1 – Responses to questionnaire sections 2 and 3*

Questionnaire Section	Response options	Frequency	Cumulative Percentage
Perceived ease of use (7 questions)	*Strongly agree*	100.6 (37%)	37
	Agree	127.8 (47%)	84
	Not Sure	31.2 (11.5%)	95.5
	Disagree	10.9 (4%)	99.5
	Strongly Disagree	1.4 (0.5%)	100
Perceived Usefulness (8 questions)	*Strongly agree*	79.1 (29.1%)	29.1
	Agree	137.6 (50.6%)	79.7
	Not Sure	40.3 (14.8%)	94.5
	Disagree	12 (4.4%)	98.9
	Strongly Disagree	3 (1.1%)	100

In the perceived usefulness section, 79% of respondents either strongly agreed or agreed that ChatGPT is useful, with the majority (50.4%) selecting the "Agree" option (Table One). Participants' responses were consistent in all eight questions, where they agreed that ChatGPT makes them exert less effort, helps them achieve higher grades and write better essays, gives them excellent ideas and information for writing, and is generally helpful in writing college essays. These findings suggest that participants have a significantly positive attitude towards the use of ChatGPT.

Figure Three illustrates measures of the central tendency of the responses in sections Two and Three. The measures provide insights into students' perceptions of the usefulness and ease of use of ChatGPT for writing their essays.

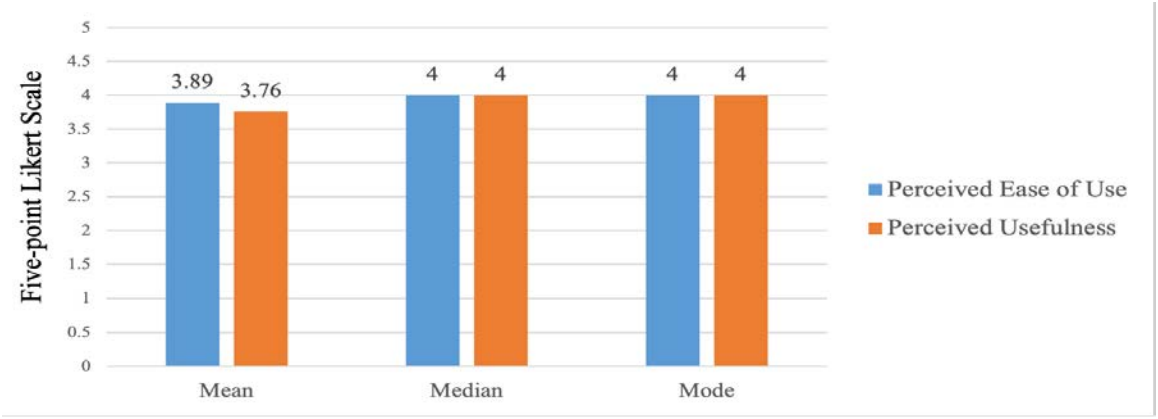


Figure 3. Measures of the central tendency of RQ1 variables

The mean value for all questions in Section Two is approximately 3.89, and the mean value for all questions in Section Three is approximately 3.76. Using a five-point Likert scale, where One refers to "Strongly Disagree" and Five refers to "Strongly Agree", these mean values suggest that students generally agree that ChatGPT is both easy to use and useful. This finding indicates a positive perception among students regarding the application's usability and usefulness. The median response in both sections is 4.00, which corresponds to "Agree" on the five-point Likert scale. This finding suggests that at least half of the students agree that ChatGPT is easy to use and beneficial. The median value of 4.00 reinforces the positive perception indicated by the mean values. The mode is also 4.00 ("Agree") in both sections, indicating that it is the most commonly chosen option among students and supporting the conclusion that most participants find the software both easy to use and useful. These collective measures of central tendency indicate that students generally perceive ChatGPT as useful and easy to use for writing their essays.

To assess the internal consistency between the participant's responses to the questions in Sections Two and Three of the questionnaire, the researchers conducted a repeated measures ANOVA to compare the mean responses in both sections. Statistical analysis in Table Two revealed no significant difference between the responses of all questions in the two sections with $p>0.05$ ($F(1, 272) = 0.272$, $p = 0.602$), indicating consistency in participants' responses across both sections.

Table 2. *ANOVA results comparing section 2 and section 3 responses.*

Source	*Sum of squares*	*Df*	*Mean Square*	*F*	*p*
Between sections	0.272	1	0.272	0.272	0.602

The boxplot in Figure Four represents the distribution of mean responses for Sections Two and Three. Each box in the plot shows the interquartile range (IQR), with the line inside the box representing the median response. The whiskers extend to the minimum and maximum values within 1.5 times the IQR from the quartiles, and any points outside this range are considered outliers. The boxplot illustrates the similarity between the medians in both sections, indicating that the central tendency is consistent across the two sections. The IQRs of both sections overlap significantly, suggesting that the overall variability in responses is comparable. The lack of significant outliers also supports the consistency of responses.



Figure 4. Boxplot of Mean Responses in Section 2 and Section 3.

The results of the ANOVA, as displayed in Table Two, along with the visual confirmation from the boxplot in Figure Four, provide a comprehensive understanding of the participants' responses to the questions in the two sections targeting RQ1 in the questionnaire. The ANOVA results indicate no significant difference between the questions in the two sections, while the boxplot illustrates the consistency in response distributions. These findings collectively suggest that participants' responses are stable and consistent across Sections Two and Three, demonstrating the reliability of the survey data in these sections.

Ethical Appropriateness of Using ChatGPT

The second research question in the current paper focused on the perception of ChatGPT users of the ethical appropriateness of its use. The research participants responded to questions related to the social influence and institutional role, as shown in Table Three. Participants' responses to the four questions in this section were inconsistent. The mode of responses towards questions related to social influence – such as the extent to which their parents and teachers encourage them to use ChatGPT – was 37.5% towards the "Not Sure" option. This suggests that students lack a clear understanding of whether using ChatGPT for writing their essays is socially acceptable.

Table 3. *RQ2 – Responses to ethical appropriateness section.*

Variable	Question	*Strongly Agree*	*Agree*	*Not Sure*	*Disagree*	*Strongly Disagree*
Social Influence	My parents encourage me to use ChatGPT	17 (6.3%)	56 (20.6%)	124 (45.6%)	53 (19.5%)	22 (8.1%)
	My teachers encourage me to use ChatGPT	18 (6.6%)	45 (16.5%)	80 (29.4%)	79 (29%)	50 (18.4%)
	I find it ethical to use ChatGPT	43 (15.8%)	94 (34.6%)	84 (30.9%)	33 (12.1%)	18 (6.6%)
Institutional Role	ChatGPT should be allowed in college	89 (32.7%)	114 (41.9%)	43 (15.8%)	20 (7.4%)	6 (2.2%)

However, when asked about the perceived ethical appropriateness of using ChatGPT, 50.4% of respondents either strongly agreed or agreed that it is ethical to use ChatGPT for writing essays. The mode was 34.6% for the "Agree" option followed by 30.9% for the "Not Sure" option. This suggests that while the majority consider using ChatGPT for writing college essays to be ethical, a considerable number of participants remain uncertain about its ethical implications.

As for the institutional role and whether the use of ChatGPT should be allowed in educational institutions, a vast majority of 74.6% either strongly agreed or agreed that the use of ChatGPT should be allowed in college, with a mode of 41.9% towards the "Agree" option. This

finding suggests that institutional acceptance of ChatGPT plays a significant role in the student's perception of its ethical appropriateness.

Concerns Towards the Use of ChatGPT

The concerns section in the questionnaire focused on two main concepts: privacy and security, and the impact of using ChatGPT on HOTS. As shown in Table Four, the mode of responses to questions related to privacy and security was 30.9% towards the "Not Sure" option. This suggests that participants are not certain about whether using ChatGPT poses risks to their privacy and security or uses their data.

Table 4. *RQ3 – Responses to the concerns section.*

Variable	Question	*Strongly agree*	*Agree*	*Not Sure*	*Disagree*	*Strongly disagree*
Privacy & Security	I am worried ChatGPT might use my personal data	33 (12.1%)	63 (23.2%)	84 (30.9%)	67 (24.6%)	25 (9.2%)
Impact on HOTS	ChatGPT will make Ss less smart	59 (21.7%)	63 (23.2%)	89 (32.7%)	48 (17.6%)	13 (4.8%)
	ChatGPT can affect creativity negatively	58 (21.3%)	100 (36.8%)	68 (25%)	37 (13.6%)	9 (3.3%)
	ChatGPT affects critical thinking negatively	58 (21.3%)	100 (36.8%)	75 (27.6%)	32 (11.8%)	7 (2.6%)
	Average	*58.3 (21.4%)*	*87.8 (32.3%)*	*77.3 (28.4%)*	*39 (14.3%)*	*9.7 (3.6%)*

The second concept in this section examined the student's perception of the impact of using ChatGPT on HOTS. A majority of 53.7% either strongly agreed or agreed that using ChatGPT would negatively impact students" creativity and their critical thinking ability, with a mode of 32.3% for the "Agree" option. This finding suggests that although the attitude of students towards using ChatGPT in writing their college essays is generally positive, they have major concerns regarding its impact on their HOTS.

Discussion

The present study aimed to examine EFL students' attitudes towards using ChatGPT for writing essays in their language courses, their perception of its ethical appropriateness, and their concerns regarding its use. The first research question focused on students' attitudes defined by their perceived ease of use and perceived usefulness.

The findings indicate that participants generally found ChatGPT both easy to use and useful, suggesting a significantly positive attitude towards its use. This finding aligns with several previous studies that highlight the benefits of using ChatGPT in language education (Ali et al., 2023; Aljouni, 2023; Baskara & Mukarto, 2023; Bin-Hady et al., 2023; Liu, 2023; Prasetya &

Syarif, 2023). It is also consistent with prior research indicating students' positive attitudes towards using ChatGPT (Sallam et al., 2024; Shoufan, 2023; Yilmaz et al., 2023).

This finding is crucial for the adoption and continued use of ChatGPT in educational settings, as user attitude plays a key role in user acceptance and satisfaction. It also supports efforts to integrate emerging AI technologies into EFL writing courses. Previous studies have recommended the use of ChatGPT to enhance language skills (Baskara & Mukarto, 2023; Hong, 2023; Jen & Salam, 2024; Younes et al., 2024), and the findings of the current study provide evidence that the technology is largely accepted by students.

The second research question examined the extent to which students perceive ChatGPT as an ethically appropriate tool. The findings revealed that while the majority consider using ChatGPT for writing college essays to be ethical, a significant number of participants remain uncertain about its ethical implications. This suggests that students have an unclear understanding of whether using ChatGPT for writing their essays is socially acceptable. This discrepancy may also raise questions about whether the participants in this study are fully aware of academic integrity and ethical appropriateness issues.

The findings for this research question do not align with previous studies, which identified social and ethical concerns as key issues reported by students when using ChatGPT in college. Prior research highlighted that ChatGPT may contribute to plagiarism and a lack of authenticity among students (Bakmeedeniya, 2024; Baskara and Mukarto, 2023; Huallpa et al., 2023). One possible explanation for this could be the absence of clear institutional guidelines regulating the use of various AI tools for educational purposes. This highlights the need for well-defined policies and ethical frameworks to guide the responsible use of AI in academic settings. Bakmeedeniya (2024) proposed several strategies for integrating ChatGPT into educational settings, including enhanced plagiarism detection software, raising awareness and providing training, employing diverse assessment methods, and establishing robust guidelines for responsible use. Valova, Mladenova, and Kanev (2024) also emphasized the need for careful consideration and integration of AI technologies in education.

The third research question in the current study examins students' concerns regarding privacy, security, and the potential impact of using ChatGPT on their HOTs. The findings suggest that participants are uncertain about whether using ChatGPT pauses risks to their privacy, security, or their personal data. These results do not align with previous research, which reported participants' concerns about their privacy and security being compromised by using ChatGPT (Liu, 2023; Yilmaz et al., 2023). The results also come in contrast with Bodani et al. (2023), who found that a significant portion of participants were not concerned about privacy and security while using ChatGPT. This discrepancy may indicate that the participants in this study may lack awareness of privacy and security issues. Thus, it raises questions about academic integrity literacy among Egyptian university students.

An interesting finding in this study is related to the student's perceptions of the impact of using ChatGPT on their HOTs. Although the students' attitude towards using ChatGPT for writing

their college essays is generally positive, they expressed significant concerns about its potential effect on their cognitive development. This finding aligns with Bodani et al. (2023), Farhi et al. (2023), Malmström et al. (2023), and Valoca et al. (2024), who reported concerns that overdependence on ChatGPT may negatively impact students' academic progress and cognitive abilities. However, these concerns contrast with findings from other studies that associate ChatGPT use with improvements in critical thinking, creativity, and problem-solving skills (Bakmeedeniya, 2024; Kasneci et al., 2023; Nghi & Phuc, 2023). The inconsistency among research findings about the long-term impact of using ChatGPT in education reflects the current uncertainty about its prospects. Given the rapid evolution of AI tools, it may still be rather early to predict the future impact of such tools on learning and cognitive development.

Conclusion

The present study employed the TAM framework to investigate college students' use of ChatGPT for writing essays in language courses, with a specific focus on their attitudes and perceptions regarding its ease of use, usefulness and ethical appropriateness, and future concerns.The results revealed that most participants have used ChatGPT for writing essays in language courses, which suggests that the application is already widely used among students for academic purposes.

The findings for the first research question revealed significantly positive attitudes. The overwhelming majority of students find the system both effective and user-friendly for writing essays in language courses. As for the second research question, almost half of the participants believe that using ChatGPT for writing essays is ethically appropriate. In contrast, a large portion was uncertain about its social acceptance. Most participants also believed colleges should allow the use of ChatGPT, which highlights the need for designing integration strategies for the emerging technology. Regarding the third and last research question, participants were uncertain about the impact of using ChatGPT on their privacy and security, which may suggest a lack of awareness regarding this technical aspect. On the other hand, most of them expressed concerns about its effect on their creativity and critical thinking, which highlights a significant future concern that should be addressed.

With ChatGPT and most other LLMs spanning less than two years of a lifetime, limitless research opportunities are awaiting scholars in this field. It would be helpful to explore student attitudes and perceptions on a larger scale and in different educational stages and settings. Similar studies can be conducted to address other widespread models, such as Gemini, Grammarly, QuillBot, and others. More qualitative, longitudinal, and comparative studies should be conducted to unveil the ethical consequences and promote responsible techniques for adopting such applications in higher education.

Furthermore, it would be beneficial to explore how and in which aspects students use the emerging technologies, as well as their shortcomings and potential benefits. With new models appearing and evolving every day, comparisons are needed to distinguish between them and to

keep up with the latest developments in this revolutionary realm. On another note, teachers' attitudes should also be examined to obtain a more comprehensive view.

Educators and decision-makers must devise strategies for incorporating ChatGPT as an instructional tool. Policies and guidelines should be developed for using AI tools in educational institutions to preserve academic integrity. It is highly recommended that educators suggest educational models or new teaching techniques that utilize AI chatbots, such as ChatGPT, Grammarly, and QuillBot. It is also recommended that these models incorporate tasks that trigger HOTS. For developers, it is recommended that ChatGPT have a clear disclaimer on the privacy and security of user data. If AI technologies are adequately and ethically incorporated into education, they can help create a richer and more customized learning experience.

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