University Teachers' Perceptions of Using ChatGPT in Language Teaching and Assessment

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ABSTRACT

ChatGPT, known as an artificial intelligence (AI) chatbot, has gained popularity in various fields, including language education, since its launch in 2022. Accordingly, stakeholders have voiced a growing concern about its potential and challenges in different areas. In such a context, the present study investigates teachers' perceptions about using ChatGPT in language teaching and assessment. The data were collected via a questionnaire survey from the teachers working in Vietnam's universities, where language teaching is an important field. They were asked about their knowledge and concerns relating to using this conversational AI tool in their teaching and assessment activities and the challenges they might face. The outcomes of this research are likely to play a part in understanding how university teachers access and apply the new technological development to their current work, how they perceive its appropriateness, as well as how they handle its impacts. The investigation has practical implications for providing teachers with professional assistance in managing AI models.

Introduction

Technology-based teaching and assessment seem to have been prevalent, along with the constant development of information technology and artificial intelligence (AI) tools, including the launch of ChatGPT in the past year. While a number of teachers perceive technology-based educational practices to be useful, others are concerned about the difficulties they may encounter as well as the negative impacts these practices may bring about (Chien et al., 2014). Alam et al. (2022) even emphasize that using AI is an undeniable phenomenon in any sphere of social and personal life, as well as in educational contexts; therefore, awareness of AI-related issues must be raised among the stakeholders. A similar concern about ChatGPT, an emergent AI chatbot, has been aroused (e.g., Limma et al., 2023; Shoufan, 2023). There has been wide-ranging discussion about the potential and challenges of using ChatGPT but mostly based on students' perceptions in various contexts (e.g., Aktay et al., 2023; Bonsu & Baffour-Koduah,

2023; Chan & Hu, 2023; Firat, 2023).

Meanwhile, many university teachers have claimed their surprise at the rapid popularity of this AI tool and its capacities. They have also been worried about whether the information provided is accurate or whether ChatGPT would replace the educators' roles. These claims are reflected in the research by Göçen and Aydemir (2020), in which both feasible possibilities and downsides of AI's entrance into education were discussed. Such a theoretical and practical background leads to a desire to understand the perceptions of teachers, who may directly get benefits and suffer from this conversational AI tool, about using ChatGPT in education. The ultimate purpose of the study is to investigate what English teachers from universities in Vietnam know about ChatGPT and perceive about using it in language teaching and assessment, thereby indicating recommendations for proper use as well as adequate guidance to take advantage of such a powerful technological tool.

Literature review

ChatGPT

ChatGPT defines itself as:

> "I am an artificial intelligence language model created by OpenAI. My primary function is to assist users by generating human-like text based on the input I receive. I have been trained on a diverse range of internet text up until my knowledge cutoff date in September 2021, which means I can provide information, answer questions, generate text in various styles, and engage in natural language conversations to the best of my abilities within the scope of the knowledge and training data available to me."

In response to which statements are correct, ChatGPT further clarifies its features (Table 1).

Table 1

Responses from ChatGPT about its features

No.	Statements	Responses from ChatGPT
1	ChatGPT is a search engine similar to Google.	This statement is incorrect. ChatGPT is not a search engine like Google. It generates text-based responses and does not perform web searches.
2	ChatGPT is a language model capable of generating texts based on basic keywords.	This statement is partially correct. ChatGPT is a language model capable of generating text based on input, including keywords. However, it can generate text beyond basic keywords and can understand context to some extent.
3	ChatGPT is created from a vast and continuously updated dataset.	This statement is partially correct. ChatGPT was trained on a large dataset, but my knowledge has not been continuously updated since my last training data in September 2021. Therefore, I may not have the most up-to-date information.
4	ChatGPT can understand human requests and execute them accurately.	This statement is partially correct. ChatGPT can understand and respond to human requests to the best of its training data and capabilities, but it may not always provide perfectly accurate responses and may require

No.	Statements	Responses from ChatGPT
		context clarification for complex requests.
5	ChatGPT is a translation support tool.	This statement is correct. ChatGPT can assist with translation tasks by generating text in different languages, but it is not a dedicated translation tool like some other software.
6	ChatGPT is an online platform for learning foreign languages.	This statement is incorrect. ChatGPT is not an online language learning platform. It is a text-based AI model designed for generating text and assisting with various natural language understanding tasks.

To put it briefly, ChatGPT sees itself as a language assistant for various human activities and emphasizes that its outstanding feature is the capability to analyze and generate texts from the given input. The origin and capacities of ChatGPT are confirmed on its mother company's website (i.e., OpenAI - an AI research and deployment company that aims to align generative models with human values in various fields). Scholars and researchers also agree that the chatbot can perform a variety of tasks based on proper prompts, such as generating advanced text and engaging in conversations with users, writing essays, brainstorming research ideas, conducting literature reviews, enhancing papers (Owens, 2023), translating languages, summarizing texts, answering questions, writing creatively (Adiguzel et al., 2023), planning lessons and assessing students (Adiguzel et al., 2023; Kasneci et al., 2023). Although the previous authors do not mention that ChatGPT has limited knowledge of the world and events after 2021, they acknowledged its bias and possibilities of unfairness. The other authors hold a belief that ChatGPT was trained on extensive data (Cousins, 2023) and could develop its abilities rapidly as it continues to receive new data through user interactions (Shoufan, 2023). However, ChatGPT is operated differently from Google's search engine. While Google provides responses based on search results from different websites, ChatGPT generates responses based on the pre-programmed set of information (Chinonso et al., 2023; Shoufan, 2023).

It is indicated from its acknowledgment and the literature that ChatGPT itself is not a specialized teaching and assessment tool. The effectiveness of using ChatGPT for language teaching and assessment depends on how it is integrated into educational processes and how educators and individuals utilize it for their purposes. With an endeavor to create a comprehensive framework for integrating ChatGPT in teaching and learning, Reyna (2023) proposes a variety of educational activities in which ChatGPT serves as a support tool for student learning and classroom assessment. For example, teachers can engage students in interacting with ChatGPT and evaluating its responses, whereby students develop their information literacy and critical thinking skills (p. 4). This activity can also be used as an alternative assessment, the criteria of which involve the application of critical thinking skills in evaluating responses and effective utilization of digital literacy skills. Teachers can even create multiple-choice questions to check their students' understanding of the target concepts. For language learning, the assessment criteria can involve clear and coherent communication in the reflective report (p. 8). Castro (2023) agrees with Reyna (2023) that ChatGPT is a useful tool to engage students in learning as well as enhance their soft skills. The author adds that ChatGPT assists students in experimenting with different phrases, grammatical structures, and expressions without fearing judgment and that it supports teachers in giving timely and

personalized feedback to their students (p. 30).

Perceptions of ChatGPT Utilization

A considerable number of studies published in 2023 demonstrate scholars' and researchers' concerns about students' perceptions of using ChatGPT for learning and teaching (e.g., Aktay et al., 2023; Bonsu & Baffour-Koduah, 2023; Chan et al., 2023; Firat, 2023; Limma et al., 2023; Shoufan, 2023; Tran & Tran, 2023). Generally, students have positive attitudes towards the use of this generative AI tool. They acknowledge the advantages of personalized and immediate learning support, proofreading and brainstorming assistance, and research and analysis capabilities. This is the irresistible reaction from students who can benefit from various features of the tool although they also voice their concerns about the accuracy and appropriateness of the provided contents (Aktay et al., 2023; Chan et al., 2023; Shoufan, 2023), privacy and ethical issues (Bonsu & Baffour-Koduah, 2023; Chan et al., 2023; Firat, 2023; Tran & Tran, 2023), loss of personal interaction (Limma et al., 2023), and possibility of laziness (Bonsu & Baffour-Koduah, 2023). However, students are just one of the stakeholders impacted by the prevalent use of this powerful chatbot. Therefore, it is necessary to look into the perceptions of teachers on whom ChatGPT has an effect both directly and indirectly.

The review of the studies conducted from 2015 to 2023 by Adiguzel et al. (2023) reveals that teachers normally have positive attitudes towards the use of AI, particularly AI-powered chatbots, in teaching and assessment. They explain that the full-package chatbot can help teachers keep track of their student's progress and give immediate feedback besides offering them teaching evaluation models or suggestions for teaching practices (pp. 5-6). However, the chatbot also poses a challenge to teachers who use essays as a form of assessment (p. 7) because managing academic integrity issues among students seems to become more complicated. Several similar reviews have been undertaken about this phenomenon. For example, Castro (2023) reviews the articles published from 2019 to 2023 on the impact of ChatGPT in education, pointing out the same advantages and disadvantages of this chatbot. It is postulated from the findings that despite its valuable assistance in education, greater care and additional safety guidelines should be provided to ensure the proper use of ChatGPT (p. 31). Chinonso et al. (2023) also review the prospects and challenges of ChatGPT for teaching, learning, and research. After reviewing the articles about the use of AI in general, the authors introduce the key features of ChatGPT and analyze its benefits and drawbacks.

One common attribute of these academic reviews is they mostly focus on ChatGPT in learning and teaching. Even though perceptions about the use of ChatGPT for assessment are mentioned, they are just related to teacher feedback rather than various aspects of assessment. Adiguzel et al. (2023) maintain that an AI-powered chatbot can assist teachers in tracking their students' learning, but the chatbot mentioned in the review is not exactly ChatGPT. In a more recent investigation, Nguyen (2023) has explored the utilization of this chatbot in language test design. The research findings indicate that the majority of the participating teachers use ChatGPT for generating/adapting input texts and creating different types of test tasks; however, the degree of its effectiveness varies according to individual users' experiences and evaluations. It is evident from the literature that despite wide-ranging reviews on this issue, there persists a notable gap regarding the field to be explored, which indicates room for further investigation

in the present study.

Another noticeable discovery from the literature is that the teachers involved in an amount of research on this issue are from various fields, that is, education strategies, open distance learning, or medical education (e.g., Firat, 2023) and are those who have experienced AI in their work (e.g., Iqbal et al., 2022; Limma et al., 2023). Nonetheless, language teachers do not seem to be frequently involved as participants in research on AI in general and ChatGPT in particular. That is the reason why the present study collecting data from university language teachers is significant to be conducted. It is also noted that whether the phenomenon is perceived to be positive or negative is probably due to whether it is properly known by the perceivers (Aru et al., 2016; Chen et al., 2018; Samaha et al., 2016). Accordingly, how much university English teachers know about ChatGPT would affect their thoughts or beliefs about this tool. The first research question – teachers' perceptions about what ChatGPT is, is driven by this idea. In short, the present study aims to answer the following research questions:

1. What is ChatGPT as perceived by university English language teachers?

2. What is the usefulness of ChatGPT in language teaching and assessment as perceived by the teachers?

3. What are the challenges of using ChatGPT in language teaching and assessment as perceived by the teachers?

Methods

Setting & Participants

The present study aimed to investigate university English teachers' perceptions of using ChatGPT in language teaching and assessment. Since the launch of ChatGPT, teachers in Vietnam have had heated discussions about whether this tool is useful for language teaching and assessment, as well as how to benefit from the tool. English teachers from various universities expressed their concerns in professional or personal meetings. They even posted their experiences and thoughts about this tool on some online platforms, such as Facebook, inviting discussion from the teacher community on multiple facets of the issue. This context drove the present study to investigate the perceptions of teachers in a wide range of universities where English is considered to be important, either it is for majors (i.e., who study English for their career) or non-majors (i.e., those whose disciplines are of different fields like Economics, Technology, Medical Studies, Law, and Physical Science).

Accordingly, the study employed a simple random sampling method. The total sample involved 43 English teachers, with 90.7% females and 9.3% males from many urban universities in Vietnam. These are valid respondents selected from nearly 100 teachers completing the survey questionnaire. The excluded are those from institutions other than universities and those who have not heard about ChatGPT. Among the selected participants, 41.9% are teachers of English-majored students, 39.4% are those of non-English-majored students, and 23.3% work with both English majors and non-majors. The number of years of experience is at least 5 years, and 34,9% of the participants have worked in this field for over 15 years. The majority of the participants (72.1%) claimed that they had experienced ChatGPT, while the rest knew about

ChatGPT but had not used it yet.

Data collection & analysis

An online survey questionnaire was created on Google Forms to investigate what English teachers know about ChatGPT and what they perceive about its usefulness and challenges. The questionnaire has three parts. The first part is a short consent form that evidences the participants' willingness to provide information for the research. The second part collects the participants' background information, including their years of teaching experience, whether they taught English majors or non-majors, and whether they had experienced ChatGPT by the time they took part in the research. The third part includes questions to explore the participants' perceptions about ChatGPT and about using it in their teaching and assessment practices. The survey questions were informed by a number of previous studies, namely Firat (2023), Gill and Kaur (2023), Iqbal et al. (2022), Shoufan (2023), Tran & Duong (2021). Besides close-ended questions, open-ended questions were also included in the questionnaire to collect further ideas from the participants. The data collected from close-ended questions were presented in descriptive statistics, and those collected from open-ended questions (if any) were categorized in themes.

Findings and discussion

ChatGPT

University teachers' knowledge of ChatGPT was investigated through a close-ended question, which involved six statements as those chatted with ChatGPT (i.e., Table 1). The teachers were required to select more than one statement indicating their understanding of this AI tool. Table 2 illustrates what the teacher participants perceived about ChatGPT. No participants shared further ideas about what ChatGPT was or could perform in the open-ended question section.

It can be seen from the data that the vast majority of the participants (93.0%) agreed, "ChatGPT is a language model capable of generating texts based on basic keywords." This definition closely aligns with how ChatGPT characterizes itself and with what the previous authors highlight (e.g., Adiguzel et al., 2023; Owens, 2023). Another definition that is in line with ChatGPT's self-definition is "ChatGPT is a translation support tool"; however, just a bit more than half of the participants acknowledged it. Plus, 55.8% held the same belief on the accuracy of ChatGPT in comprehending and responding to human requests; in the meantime, ChatGPT acknowledges this capacity to some extent, clarifying that it may not fully grasp the requests with precision. Several authors, such as Aktay et al. (2023), Chan et al. (2023), and Shoufan (2023), also acknowledged this feature.

As for the data source of ChatGPT, more than four-fifths of the respondents (81.4%) believed it remains up-to-date; meanwhile, in reality, ChatGPT's training data was last updated in September 2021. Similarly, although ChatGPT itself claims not to be a search engine or a language learning platform, which is in line with the views of several previous authors (Chinonso et al., 2023; Shoufan, 2023), nearly half of the participants believed otherwise (41.9% and 37.2% respectively).

Table 2

Participating teachers' knowledge about ChatGPT

No.	Statements	Responses from participants	
		Total	**Percentage**
1	ChatGPT is a search engine similar to Google.	18	41.9%
2	ChatGPT is a language model capable of generating texts based on basic keywords.	40	93.0%
3	ChatGPT is created from a vast and continuously updated dataset.	35	81.4%
4	ChatGPT can understand human requests and execute them accurately.	23	53.5%
5	ChatGPT is a translation support tool.	24	55.8%
6	ChatGPT is an online platform for learning foreign languages.	16	37.2%

It can be indicated from the findings that not all participants comprehensively understand ChatGPT. This phenomenon seems to be compatible with not all of them having experienced ChatGPT in their teaching and assessment. Plus, approximately one-fifth of the participants claimed that they often had difficulty updating their knowledge about technology-based teaching in general and ChatGPT in particular. Likewise, only nearly half of the participants showed their interest in self-studying and applying AI or ChatGPT in their teaching and assessment practices. This implies that when new technology is introduced or expected to be utilized, teachers may require additional support and guidance instead of independently conducting research and implementing it.

Usefulness of ChatGPT

As revealed from the data of the present study, the vast majority of the participating teachers (81.4%) held a belief that ChatGPT could be a valuable support tool for teachers if provided with specific guidance. Regarding the beliefs of different teacher experience groups (i.e., those with 5-10 years of experience, 10-15 years of experience, and over 15 years of experience), a significant proportion within each group shared the same belief. Notably, over 90% of teachers with 10-15 years of experience and over 80% of those using ChatGPT proficiently maintained this view. Also, there was no significant difference in the perceptions of ChatGPT's value between those who taught English majors and those who taught non-majors (77.8% and 86.7%, respectively). Several teachers emphasized, by responding to the open-ended question in the survey, that "ChatGPT has multiple features and capacities that have not yet been explored" and that "ChatGPT has developed so fast that it has not been fully explored". These statements were all from the teachers with more than 15 years of experience. One of them even explicitly pointed out that "user training is critically necessary for proper utilization". This finding aligns with previous research in the field (Castro, 2023), underscoring the idea that the use of ChatGPT should be under greater care.

Table 3 shows several specific benefits of ChatGPT as perceived by the participating teachers. Noticeably, these benefits were acknowledged by fewer than 50% of the participants. The most outstanding advantage of ChatGPT is its support for teachers' feedback and grading, selected

by 48.8% of the respondents. It can be seen that the number of participants realizing this advantage seems to be limited, although it has been widely acknowledged by numerous previous research studies (e.g., Adiguzel et al., 2023; Castro, 2023). The state of uncertainty is evident through the data gathered from different cohorts of ChatGPT users. While 83% of proficient ChatGPT users acknowledged this merit, fewer than 50% of non-proficient ChatGPT users and a mere 16.7% of individuals acquainted with ChatGPT but yet to utilize it confirmed this benefit. This poses the question of whether the participating teachers really know how to utilize ChatGPT for such a purpose and/or what kind of guidance should be provided to maximize ChatGPT's assistance to the teachers. The second most outstanding advantage is its function as a powerful self-learning aid for students with 39.5% of choices. This finding is in line with those about students' perceptions (e.g., Aktay et al., 2023; Bonsu & Baffour-Koduah, 2023; Chan et al., 2023; Firat, 2023; Limma et al., 2023; Shoufan, 2023) that ChatGPT supports their learning.

Table 3

Participating teachers' perceptions of ChatGPT usefulness

No.	Statements	Responses from participants	
		Total	Percentage
1	I find ChatGPT as a valuable tool in the classroom, motivating students to learn.	8	18.6%
2	I think ChatGPT helps me save time in providing feedback and grading for students.	21	48.8%
3	I feel more confident in my work when I have support from ChatGPT.	10	23.3%
4	I find ChatGPT to be a powerful self-learning aid for students.	17	39.5%

Regarding specific aspects of assessment activities that ChatGPT can support (i.e., making an assessment plan, writing multiple choice questions, writing a cloze text, writing open-ended questions, checking students' mistakes, and suggesting better structures in students' writing), roughly a quarter of the participating teachers did not make use of ChatGPT. Moreover, among the respondents, just around half considered these functions effective, while the others regarded them as ineffective or were unsure of their usage. As implied from this finding, how much as well as how well the teachers experienced with ChatGPT may contribute to their perceptions of this AI tool. This aligns with Nguyen's (2023) findings about the effectiveness of using ChatGPT for text generation/adaptation and item writing. This also indicates that expert guidance seems to be critically necessary to ensure the proper use of ChatGPT in teaching and assessment. Regarding what should be trained for university language teachers about using ChatGPT, the majority of the participants (74.4%) claimed their need for proper query formulas. Some statements from the teachers were that "the right orders are important as they result in the right answers" and that "in order for teachers to use ChatGPT effectively, they need to master the way to write commands for it". They even recognized that a general query and a specific query can yield quite different responses from this chatbot and that a general query may sometimes lead to misunderstanding. One teacher even illustrated her point by telling one of her real situations:

> "I provided ChatGPT with a complex structured text and asked it to make an outline based on the given text. It generated a response quite quickly, but then I recognized that the ideas presented in the outline were not in the same order in the given text, which was unexpected to me. Then I asked ChatGPT to regenerate the outline with more specific commands, especially related to the order of the provided information, and I received quite a different response."

Challenges with ChatGPT

On the whole, roughly four-fifths of the participants were concerned about the possible misuse of ChatGPT, and over three-fifths feared that teachers and students may become overly dependent on ChatGPT in their learning and teaching activities. Regarding the beliefs of different teacher groups (i.e., those teaching English majors and those teaching non-majors), there was no significant difference in these perceptions (both over 80% and over 65%, respectively). On the contrary, there was a certain difference in the perceptions of those who could use ChatGPT proficiently and those who could not or have little experience with ChatGPT. Specifically, the participating teachers who had little experience with ChatGPT seemed to be more worried about the misuse than the others, with 100% of choices. Regarding teachers' and students' over-dependence on ChatGPT, those who were not proficient in using ChatGPT were less worried than the other groups, with a bit more than half of the choices. Meanwhile, more than three-fourths of each rest group showed their concerns about this phenomenon.

Table 4 shows several specific drawbacks of ChatGPT as perceived by the participating teachers. Except for the perception of its unhelpfulness in the classroom (4.7% of choices), the other drawbacks were acknowledged by more than 60% of the participants. This figure indicates that the teachers apparently thought more about ChatGPT's negatives than its positives. Specifically, the teachers were very concerned about students cheating, students becoming lazier, and ChatGPT's reliability. In responding to the open-ended question, one teacher said that "much of the information given by ChatGPT seems so real that users may easily get confused or become less cautious". The other teacher shared a story about her student using ChatGPT:

> "One of my students used ChatGPT to complete the research assignment. I told him to be honest as I knew it was not his work exactly. He strongly affirmed he had done it on his own until I pointed out that the references of the previous research were unreal… ChatGPT itself generated the references and could be found nowhere; even the names of the researchers were created."

The teachers' worries about students' laziness and cheating are evident. More critically, whether both students and teachers can trust ChatGPT in different situations is also in question; in other words, there are certain doubts about the accuracy of the information given by ChatGPT. This finding aligns with those from research on students' perceptions (e.g., Aktay et al., 2023; Bonsu & Baffour-Koduah, 2023; Chan et al., 2023; Firat, 2023; Limma et al., 2023; Shoufan, 2023; Tran & Tran, 2023), indicating that these issues have been drawing much attention from different

stakeholders and that addressing them promptly would become a complex challenge.

Table 4

Participating teachers' perceptions of challenges with ChatGPT

No.	Statements	Responses from participants	
		Total	Percentage
1	I find ChatGPT to be unhelpful in the classroom and a time-waster.	2	4.7%
2	I believe ChatGPT makes it easy for students to cheat on assignments and/or exams.	26	65.1%
3	I am skeptical about the reliability of the information provided by ChatGPT.	28	61.5%
4	I think students may become lazier thinking when using ChatGPT excessively.	27	62.8%

Additionally, 67.4% of the participants believed that the role of teachers would change significantly when students were familiar with ChatGPT. However, not all of these respondents thought teachers would have to work harder to limit the negatives of ChatGPT (just 44.2%). Regarding the possibility of students cheating on assignments and/or exams, 67.4% of the respondents maintained that assessment formats and content would need to be changed, that is, focusing more on critical thinking skills as ChatGPT has become increasingly popular. These assumed changes may pose challenges for teachers in their work as they would need to develop themselves professionally, especially for digital literacy and capacity. Only by professional development could teachers recognize the problems that technology-based teaching and assessment may offer and the possible resolutions to those problems. The teachers also emphasized that ChatGPT was quite new, and it would take time to understand and utilize its features fully.

Conclusion

In summary, the participating teachers had certain knowledge about ChatGPT, but their knowledge seemed to be incomplete. Specifically, they mistook the other applications' functions for ChatGPT's functions. Such a limited understanding of ChatGPT could more or less influence their perceptions and practices. Moreover, the participants had a contradicting view about the usefulness and challenges of ChatGPT in teaching and assessment; however, more negatives could be seen than positives about this AI-powered chatbot. Notably, the differences in their perceptions did not result from the distinction of their student groups (i.e., majors or non-majors) but were associated with how proficiently the teacher could use ChatGPT in their work. The findings indicate a need of proper training and/or guidance on ChatGPT utilization, especially the concern about how to write appropriate commands to get the wanted support.

Although the present study could raise awareness of ChatGPT use in teaching and assessment, contributing to the literature on perceptions of ChatGPT, it was limited in terms of the number of respondents and specific insights into the teachers' specific thoughts and beliefs. Further research employing a mixed method should be conducted in this field better to understand the phenomenon in the context of Vietnamese teachers.

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