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English Majors' Perceptions of AI Tool Application in English Language Learning at Tertiary Level in Vietnam

Nguyen Thi Xuyen 

Faculty of Foreign Languages, Ho Chi Minh City University of Industry and Trade, Ho Chi Minh City, Viet Nam

Abstract

As AI technology continues to advance, its influence on foreign language learning, especially English language learning, is becoming increasingly important. It is crucial to assess how English majors view the integration of AI tools into their English learning process. This research uses a quantitative research design and a structured survey questionnaire to collect data to evaluate English majors' experiences, perceptions, expectations, and concerns about the use of AI tools in their English language learning journey at the tertiary level in Vietnam, specifically across various universities in Ho Chi Minh City. The results indicate that the respondents have already used AI tools for English language learning purposes. Moreover, the participants have a positive attitude toward the application of AI tools in their English language learning. However, they also express concerns about the impact of AI tools on their critical thinking and problem-solving skills, as well as their future career prospects as English teachers and translators. This study suggests further consideration of the integration of AI tools in English Language Learning for English majors.

Keywords: *English Language Learning, English Majors, AI tools*

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ⁱ **Correspondence author:** Nguyen Thi Xuyen

Email: xuyennt@huit.edu.vn

Introduction

The education and training field has recently seen a surge in interest in Artificial Intelligence (AI) due to its ability to revolutionize the learning process. AI facilitates personalized learning, dynamic assessments, and meaningful interactions in online, mobile, or blended learning environments, making it a significant keyword in the field (Zhang & Aslan, 2021). In the field of English language learning and teaching, AI-powered tools like Chat GPT which has been recently introduced have caught a great deal of attention and several studies have investigated the AI-powered tool application in English-language learning (Alhalangy & AbdAlgane, 2023; Alharbi, 2023; Alsadoon, 2021; Han, et al., 2023). The successful integration of AI tools in language learning depends not only on technological advancements or teachers but also on understanding learners' perceptions and experiences regarding their usages. However, the

experiences, perceptions, and concerns of English-majored students regarding integrating these tools into their learning of English as a foreign language remain little known.

Moreover, recently there has been a surge in the availability and usage of AI-powered tools among students. Several studies have shown that the integration of AI tools in foreign language learning has positive impacts on learners' motivation (Moybeka, et al., 2023), learner involvement, and academic performance (Ouyang, Zheng, & Jiao, 2022; Khan, Ahmad, Jabeur, & Mahdi, 2021; Kim, Kim, & Cha, 2021). Specifically, AI-powered writing tools like Quillbot have proven to be immensely helpful in providing instantaneous feedback and correction suggestions related to grammar, punctuation, and expression, and aiding in the optimization of sentence structures, word tones, and choices, thereby enhancing the overall quality of the written content (Farhi, et al., 2023; Xuyen, 2023). AI tool integration into English language learning has also been stated to help improve learners' listening, reading, and speaking skills (Adilbayeva, Mussanova, Mombekova, & Suttibayev, 2022; Ma, 2021). Nevertheless, some researchers have expressed their concerns related to AI tools' negative impacts on language learning which arise from the overreliance on AI tools, lack of human interaction, and critical thinking skills (Huang, Zou, Cheng, Chen, & Xie, 2023; Thái, 2023).

While previous studies focus on examining the impacts of AI tools in language learning and teaching from the perspectives of teachers, faculty members, and experts, research specifically on English majors' perceptions in the Vietnamese context is limited, just name a few like Thai (2023) or Xuyen (2023). Given the unique characteristics of Vietnam's tertiary education system, cultural factors, and language learning preferences, it is essential to explore how English majors in Vietnam perceive and engage with AI tools in their English language learning process. Investigating their perceptions can provide valuable insights into the suitability and potential impact of AI tools on English language education at the tertiary level in Vietnam.

The findings of this research hold significant implications for English language educators, curriculum developers, and policymakers in Vietnam. By understanding English majors' perceptions of AI tool application, educational institutions can make informed decisions regarding integrating AI tools into language learning curricula, ensuring that they align with students' needs and expectations. Moreover, this research hopes to contribute to the improvement of English language learning practices and pedagogies in Vietnam's tertiary education context, fostering more effective and engaging language learning experiences for English majors.

Literature Review

AI and English language learning

Artificial Intelligence or AI is defined as the ability of a computer or digital machine to perform tasks that are commonly associated with intelligent beings. There are several branches of AI technology, such as

computer vision, speech, machine learning, big data, and natural language processing. Each branch has its own set of intricacies and nuances, making them vital components of the broader AI field (Chiu, Xia, Zhou, Chai, & Cheng, 2023). The field of artificial intelligence (AI) has gained considerable attention in education, presenting several opportunities to improve learning outcomes. Researchers have extensively explored the use of AI tools in different educational contexts, including language learning. This trend has offered a promising avenue for enhancing the efficacy of language learning.

According to Vall and Araya (2023), AI language learning tools encompass a range of technologies and techniques that simulate human intelligence to aid learners in acquiring and improving their language skills. These tools are typically classified as Automatic Evaluation Systems (AESs), Neural Machine Translation Tools (NMT), Intelligent Tutoring Systems (ITSs), AI Chatting Robots, and Intelligent Virtual Environments (Jiang, 2022).

Jiang (2022) states that Automated evaluation systems (AESs) rely heavily on big data and natural language processing technologies such as automatic speech recognition and word sense disambiguation, allowing AESs to analyze input information and generate automatic feedback. These tools are primarily used in EFL writing and speaking contexts and have been shown to enhance EFL learners' oral fluency and pronunciation (Ahn & Lee, 2016). Despite their availability, AESs are not considered reliable replacements for human raters in EFL writing instruction due to their comparatively lower accuracy, insufficient high-quality comments, frustrating recognition levels, and lack of convenience, according to the perspective of EFL teachers (Algaraady & Mahyoob, 2023; Alharbi, 2023; Ariyanti & Anam, 2021; Godwin-Jones, 2022).

NMT (Neural Machine Translation) tools have been designed to use an end-to-end approach for automated translation and have been proven to be beneficial for EFL learners' learning by improving self-directed learning (Godwin-Jones, 2022), enhancing the mastery of vocabulary and grammar knowledge (Bahdanau, Cho, & Bengio, 2015), fostering the development of writing, reading and listening skills (Alhaisoni & Alhaysony, 2017), and reducing language anxiety (Bahri & Mahadi, 2016).

Intelligent Tutoring Systems, known as ITSs, are created to provide personalized tutoring and assist in learning through the use of algorithms, learner models, and neural networks. In the EFL context, various applications of ITS have been used effectively to improve grammar learning, reading comprehension, and speaking skills. This is achieved by providing immediate and appropriate feedback and by customizing instructional materials (Xu, Wijekumar, Ramirez, Hu, & Ireys, 2019).

Chatbots refer to computer programs that use AI to facilitate intelligent interaction in a written or spoken form, which can enhance the user experience by learning from previous conversations (Jiang, 2022). Through various studies, chatbots have been proven to be effective in improving EFL learners' language knowledge, including grammar and vocabulary (Alsadoon, 2021; Xuyen, 2023), as well as enhancing their English language application skills (Algaraady & Mahyoob, 2023; Hang, 2023; Han D. E., 2020; Han, et

al., 2023; Kim, Cha, & Kim, 2022; Kim, Kim, & Cha, 2021), and increasing their motivation, self-confidence, and interest in learning (Ali, Shamsan, Hezam, & Mohammed, 2023). However, some research argues that AI chatbots can have negative impacts on EFL learners' critical thinking and problem-solving skills (Thái, 2023) and these AI tools are not effective for beginner-level students.

An intelligent virtual environment is a combination of autonomous creatures and agents, along with effective graphical representation and interaction tools, all powered by intelligent techniques and tools (Luck & Aylett, 2000). The application of Virtual Reality tools has been extensive in foreign language education, particularly in improving vocabulary learning and retention (Tai, Chen, & Todd, 2022), improving English speaking and communication skills (Chen, Thomas, York, & Mayall, 2020), increasing EFL learners' motivation and reducing anxiety (Chien, Hwang, & Jong, 2020; Ma, 2021).

In short, various previous studies have proven that the integration of AI-powered tools into EFL learning and teaching benefits both teachers and students. Specifically, from teachers' perspectives, applying AI tools in EFL learning and teaching can help improve learners' English language knowledge and English language skills, enhance their motivation to learn English, and promote their autonomy. However, several challenges and concerns related to AI tool application in EFL learning and teaching have also been suggested. Several researchers have expressed their concerns related to the accuracy and reliability of the information provided by AI chatbots (Thái, 2023; Tlili, et al., 2023). Ali, Shamsan, Hezam, and Mohammed (2023) and Thái (2023) state that overdependence on AI tools like Chat GPT can negatively affect EFL learners' critical thinking and problem-solving skills. Other researchers (Farhi, et al., 2023; Huang, Zou, Cheng, Chen, & Xie, 2023; Hwang, Xie, Wah, & Gašević, 2020) argue that lack of human interaction due to using AI Language Learning Tools is problematic for EFL learners, and there are some ethical considerations to keep in mind when using AI in EFL learning and teaching, including privacy, fairness and bias, accessibility, and transparency.

Research gaps

The current body of literature on the utilization of AI tools in EFL education primarily centers on examining the effects of these tools on specific English language competencies and expertise as perceived by EFL educators and specialists. Nevertheless, there is a shortage of literature that delves into the perspectives of EFL learners, specifically those majoring in English, concerning the use of these tools and their influence on their overall English proficiency and knowledge. To bridge this gap, this study is conducted to survey English majors' experiences with AI-powered language learning tools in EFL learning, their perceptions of the benefits and challenges of these tools, and their expectations for the integration of AI tools into their English language learning.

The study aims to answer four research questions:

(1) What AI-powered tools have English majors used in their English language learning at the tertiary level?

(2) What are the primary purposes of using these tools?

(3) How do English majors perceive the benefits and challenges of AI tool application in English language learning?

(4) What are the expectations of English majors regarding AI tool application in English language learning?

Research Methodology

To achieve the research objectives, this study adopts a quantitative research design, utilizing a structured survey questionnaire as the primary data collection instrument. The questionnaire is developed based on relevant literature with 29 close-ended questions in the forms of multiple responses and 5-point-Likert scale. The questionnaire is divided into three main parts. Part 1 consists of 3 items to investigate English Majors' experiences in using different AI-powered language learning tools. Part 2 includes of 21 items in the form of Likert-scale aiming to evaluate participants' perceptions towards the effectiveness and challenges associated with AI tool integration in their English language learning at universities. Part 3 consists of 5 items to figure out the participants' expectations regarding AI tool integration into English language learning.

The population of this study is students majoring in English linguistics at three universities in Ho Chi Minh City, Vietnam. The convenience sampling method has been used to select the participants for this study since it is the most appropriate method that the researcher can use to approach English Majors at those universities. The following table (Table 1) presents the demographic information of the participants.

Table 1: Demographic information of the participants

N = 212		Percentage
Gender	Male	20.8
	Female	75.5
	Prefer not to say	3.7
Hometown	Rural areas	49.1
	Urban areas	50.9
Methods of learning English	Online only	1.9
	Face-to-face only	12.3
	Both online and face-to-face	85.8
Job Expectations	Work as English teachers	42.5
	Work as translators/interpreters	18.9
	Work for foreign companies in Vietnam	33.0
	Work abroad	5.7

The questionnaire was distributed to the participants online using Google Forms in September 2023. The collected data is then analyzed using the IBM SPSS version 25 to calculate the descriptive statistics.

Findings and Discussions

English Majors' Experiences in Using AI Tools for EFL Learning

Figure 1 below shows the AI-powered tools that English Majors have used to learn English at tertiary level in Vietnam.

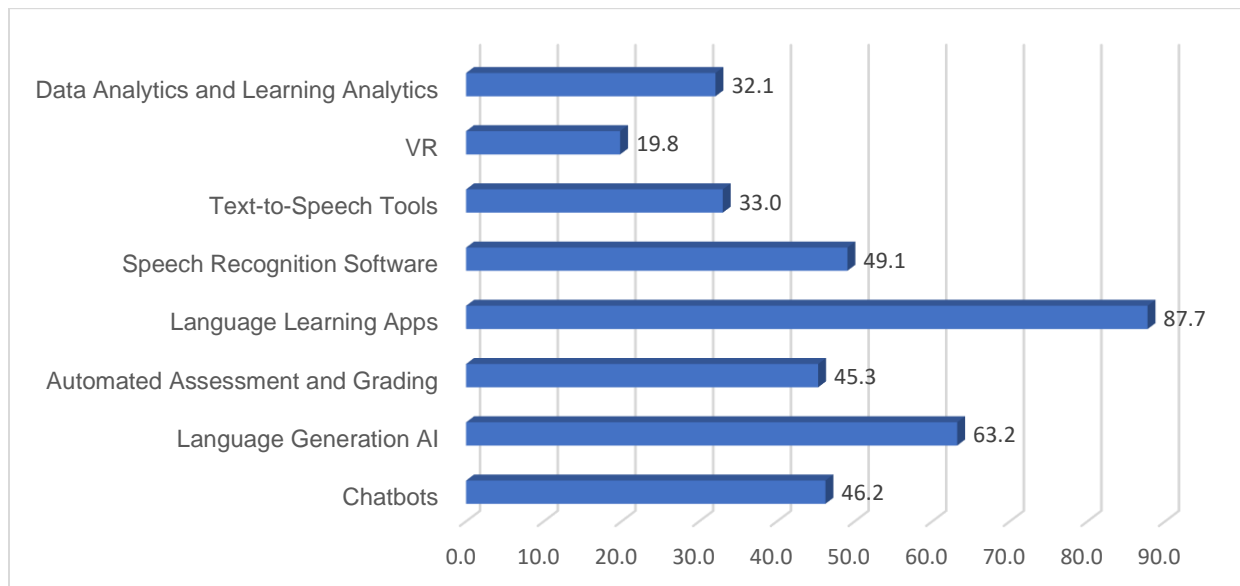


Figure 1. AI-powered tools used by English Majors at Tertiary Level

The study reveals that AI-powered tools are widely used by English majors for language learning purposes. Among the AI tools, language learning apps like Duolingo are the most frequently used (87.7%). Language generation AI tools like Grammarly or Quillbot are also popular (63.2%), along with automated assessment and grading tools like Quizzes and Turnitin (45.3%). Virtual reality tools, on the other hand, are the least common tools used for learning English.

Figure 2 displays the purposes of using AI tools. The study suggests that English majors use AI tools for various activities, with the majority (84%) using them to improve their English knowledge and skills, including vocabulary, grammar, speaking, listening, writing, and reading. AI tools are also popular for receiving feedback to improve their English (80.2%) and to help with English assignments (72.6%). However, creating learning plans using AI tools is the least common purpose (33%) among English majors.

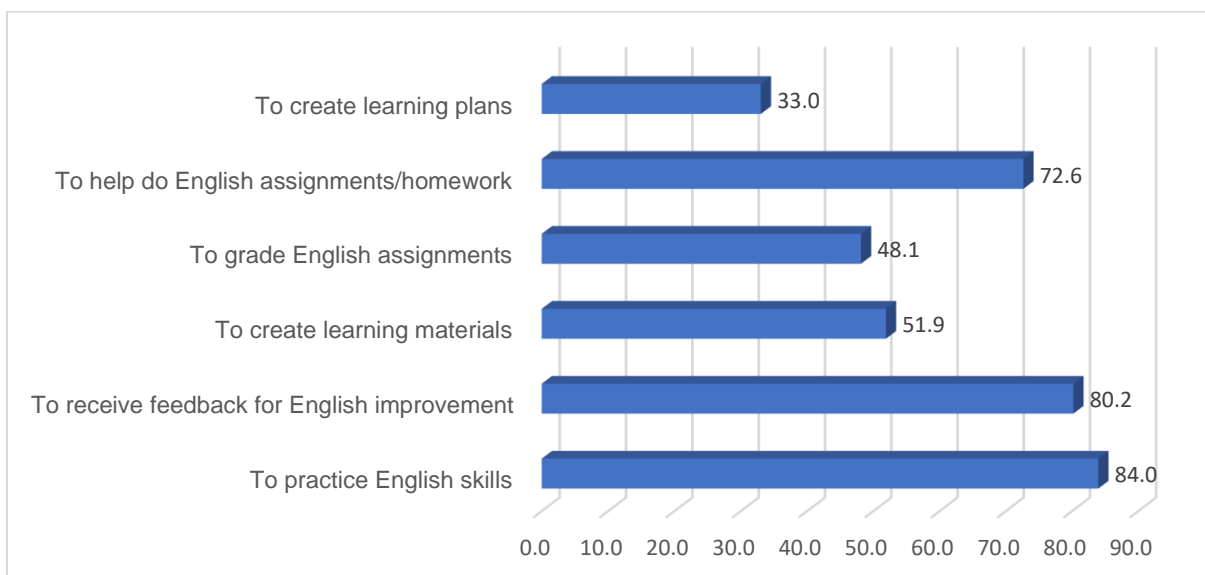


Figure 2: Purposes of using AI tools

The following table (table 2) illustrates the respondents' evaluation of their overall experiences in using AI tools to learn English at universities.

Table 2. The overall perceived experience in using AI tools

	Frequency	Percentage	Mean	Std. Deviation
Very negative	1	0.5	3.80	0.696
Negative	9	4.2		
Neutral	44	20.8		
Positive	136	64.2		
Very positive	22	10.4		
Very negative	1	0.5		

As per the data provided in Table 2, the mean for this particular item is 3.80, which is significantly far from 1.0 and relatively closer to 5.0. This indicates that the respondents have expressed a favorable perception regarding their usage of AI-based tools to learn the English language.

English Majors' Perceptions of AI tools Application in EFL learning

Table 3. Perceived benefits of AI tool integration in English language learning

No	Item	Disagree (%)	Neutral (%)	Agree (%)	Mean	Std. Deviation
	English language knowledge and skills				3.78	0.759

1	AI tools help me improve my English-speaking skills.	14.2	24.5	61.3	3.59	0.922
2	AI tools help me improve my English writing skills.	6.6	12.7	80.7	3.89	0.818
3	AI tools help me improve my English-listening skills.	11.8	28.8	59.4	3.56	0.877
4	AI tools help me improve my English-reading skills.	4.2	19.8	76.0	4.01	0.851
5	AI tools help me improve my English vocabulary and grammar.	6.6	20.8	72.6	3.89	0.883
6	AI tools help me plan effective English language learning.	1.4	24.1	74.5	3.91	0.722
7	AI tools help me have access to academic materials anytime and everywhere.	2.4	8.5	89.3	4.23	0.740
8	AI tools can help increase my motivation to learn English.	9.9	28.3	61.8	3.67	0.884
9	AI tools can help develop my autonomy in learning English.	14.2	25.0	60.8	3.59	1.019
10	AI tools can provide me with personalized English language learning experiences.	10.4	22.2	67.4	3.86	1.025
11	AI tools can provide immediate feedback and assessment enabling me to adjust my learning immediately.	5.7	19.8	74.5	4.11	0.947
12	AI tools provide me with unlimited opportunities to practice the target language	4.7	14.6	80.7	4.28	0.899
Overall					3.88	0.787

Table 3 presents the survey results indicating that the application of AI tools has a positive impact on English language learning, as perceived by the respondents, with a mean score of 3.88. The findings suggest that English majors acknowledge AI tools as valuable resources that can enhance their vocabulary and grammar knowledge, as well as their speaking, writing, listening, and reading skills, as evident from the mean score of 3.78.

The results further demonstrate that the participants recognize the benefits of AI tools in providing opportunities for EFL learners to practice the target language, access academic materials conveniently, and receive prompt feedback for their adjustments, with means of 4.28, 4.23, and 4.11, respectively. Additionally, the integration of AI tools is perceived as a motivational and autonomous factor in learning English, as indicated by the participants' responses.

Table 4: English Majors' perceptions of challenges and concerns related to AI tool application

No	Item	Disagree (%)	Neutral (%)	Agree (%)	Mean	Std. Deviation
1	I am worried about the reliability and accuracy of the information provided by AI tools.	11.3	27.7	60.9	3.61	0.867
2	I am worried that overusing AI tools can lead to a lack of human interaction.	14.6	20.8	64.6	3.55	0.989
3	I am worried that the information provided by AI tools like Chat GPT can be biased.	15.1	16.0	68.9	3.64	0.926
4	I am worried that my privacy and security can be affected when using AI language learning tools.	24.5	19.8	55.7	3.33	1.073
5	I am worried that AI can make English language teachers redundant.	9.9	22.6	67.5	3.72	0.850
6	I am worried that AI and automated translation will eventually make translators and interpreters redundant.	15.6	16.5	67.9	3.64	0.926
7	I am worried that I will become overdependent on AI tools in my English language learning.	17.0	10.4	72.6	3.68	1.139
8	I am worried that my overdependence on AI tools can negatively affect my problem-solving skills.	29.6	17.5	52.9	3.25	0.968
9	I am worried that my overdependence on AI tools can negatively affect my critical thinking skills.	10.8	22.2	67.0	3.68	0.859
Overall					3.57	0.921

Table 4 presents the English Majors' perceptions regarding the challenges and concerns associated with the integration of AI tools in their English language learning process. The data collected from the participants show that they are apprehensive about various challenges that may arise from the implementation of AI tools. The cluster's mean of 3.57 and Standard deviation of 0.921 indicate that the concerns are widespread among English Majors at survey universities.

The most significant challenge identified by the participants is the possibility that learners may become excessively reliant on AI tools (72.6%). This overdependence can negatively impact their critical thinking skills (67%). Additionally, many participants expressed their concerns about the accuracy, reliability, and bias of the information and knowledge provided by AI tools (68.9% and 60.9%).

Moreover, nearly two-thirds of the respondents are apprehensive that their job prospects as English teachers, translators, or interpreters might be adversely affected by AI technology.

English Majors' Expectation of AI tool in EFL learning

Table 5. English majors' expectation of AI tool application in EFL learning

No	Item	Disagree (%)	Neutral (%)	Agree (%)	Mean	Std. Deviation
1	AI tools should be developed to support the learning of different varieties of English around the world (like localized pronunciation and expressions)	0.0	22.6	77.4	4.04	0.704
2	AI will play a more significant role in transforming English language learning.	17.5	18.9	63.6	3.59	0.971
3	AI tools should be integrated into English language learning.	8.5	13.7	77.8	3.97	0.867
4	Training on the application of AI tools in English language learning should be officially provided by universities.	13.2	25.0	61.8	3.67	0.937
5	Ethical guidelines should be established for the use of AI tools in English language learning.	9.0	17.9	73.1	3.97	0.931

The findings presented in Table 5 show that English majors have high expectations for AI tools in their future EFL learning. The majority of the respondents (77.4%) believe that AI tools should be developed to support the learning of different English varieties worldwide. The respondents also have a strong belief that AI tools will play a significant role in transforming English language learning (mean = 3.59). Moreover, they highly agree that AI tools should be integrated into English language learning, and universities should provide official training on the application of AI tools in English language learning. Additionally, the respondents emphasize the importance of establishing ethical guidelines for the use of AI tools in English language learning (mean = 3.97).

In short, the findings from this study clarify the experiences and perceptions of English majors concerning integrating AI tools in their EFL learning at the tertiary level in Vietnam. The results indicate that English majors in the surveyed universities have a considerable level of awareness of AI tools and have already utilized them in their various language-learning activities. This highlights the growing influence of AI technology in the field of language education.

Moreover, the participants in this study hold quite a positive attitude toward the application of AI tools in their EFL learning. They perceive AI tools as easy to use, and effective in enhancing their language knowledge and skills as well as their language learning experiences. These findings align with previous

research that has highlighted the benefits of AI tools in improving motivation, learner involvement, and academic performance in language learning contexts.

However, the study also reveals concerns among English majors regarding the potential negative impacts of AI tools on critical thinking and problem-solving skills. Participants express apprehension about the overreliance on these tools and the potential limitations they may impose on the development of higher-order cognitive skills. This highlights the need for a balanced approach to integrating AI tools in language learning, where they are used as supportive resources rather than substitutes for human interaction and critical thinking.

The study's findings also shed light on the expectations of English majors regarding AI tools in their EFL learning. Participants anticipate the significant role of AI tools in language learning in the future and expect more official training on the use of AI tools should be provided as well as ethical issues should be paid more attention to. These expectations underscore the importance of considering the long-term implications of AI tool integration in language education and aligning them with the goals and needs of English majors.

Conclusion

Through surveying 212 English majors studying at three universities in Ho Chi Minh City, Vietnam, this study has provided valuable insights into their perceptions, experiences, and expectations regarding the integration of AI tools in EFL learning at the tertiary level in Vietnam. The findings indicate that English majors are significantly aware of AI tools and have already utilized various types of AI tools in different language learning activities. Moreover, they perceive AI tools as beneficial resources that can enhance their language skills and their language learning experience. However, concerns are raised regarding the potential impact of AI tools on critical thinking, creativity, and employment opportunities.

These findings highlight the need for a balanced approach to integrating AI tools in language learning. While AI tools have the potential to improve language skills and provide valuable support, it is important to ensure that they do not hinder the development of higher-order cognitive skills. Educators and policymakers should consider these concerns and design interventions that promote the use of AI tools as complementary resources, fostering a balance between technology and human interaction in language education.

The results of this study also emphasize English majors' expectation of integrating AI tools into the process of learning and teaching English as a foreign language at the tertiary level in Vietnam as well as the inclusion of training on how to effectively and properly use AI tools to enhance English language learning into the official curricula. By understanding their expectations, educational institutions can make informed decisions regarding integrating AI tools into language learning curricula. This will help create

more effective and engaging language learning experiences for English majors, ultimately contributing to the improvement of English language education at the tertiary level in Vietnam.

Further research can explore specific strategies and approaches for integrating AI tools in language learning that address the concerns raised by English majors. Additionally, longitudinal studies can investigate the long-term impact of AI tool integration on language skills, critical thinking, and employment opportunities. By continuously assessing and adapting the integration of AI tools, language educators can harness the potential of these technologies while ensuring a holistic and effective language learning experience for English majors.

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