

# AI language models: A breach of academic integrity in online language learning?

Omer Ozer 

Adana Alparslan Turkes Science and Technology University, Turkey

This study elucidates considerations surrounding university students' use of artificial intelligence (AI) in their coursework, and its impact on online language learning and assessment. This exploration is based on students' personal experiences and perceptions. To investigate the students' use of generative AI, an open-ended questionnaire, consisting of optional questions, was developed. A total of 54 students from diverse undergraduate fields of study, who were enrolled in online General English, English for Academic Purposes or Academic Writing courses, provided responses to the open-ended questions. The data were analysed inductively by two researchers using thematic analysis. The findings suggest that, despite offering numerous potential benefits to student learning, such as facilitating learning and supporting language proficiency, AI language models also raise a variety of challenges and concerns. These include issues related to plagiarism, cheating, assessment and over-reliance on AI.

**Keywords:** Generative AI, AI chatbots, language learning, online learning, language assessment

## Introduction

Large language models (LLMs), including GPT-3.5 and GPT-4, hold significant potential for enhancing foreign language learning among students (Gayed et al., 2022; Kohnke et al., 2023). This technology is gaining ground in universities, where it serves multiple purposes, including customised and automated assessments, plagiarism detection, and AI-powered learning analytics (Crompton & Burke, 2023). Nevertheless, it is important to note that this transformation may not always be for the better (Fyfe, 2023; Yeo, 2023). The anonymity and remote nature of online

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Email address for correspondence: omerozar.phd@gmail.com

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assessments and courses may facilitate academic dishonesty, as students could exploit generative AI tools to produce unauthorised content, such as generating answers for examinations and assignments. This poses a challenge to the integrity of evaluation processes (Gribbins & Bonk, 2023; Sullivan et al., 2023). Despite ongoing debates, there is still limited literature on AI's impact on educators and students, particularly concerning assessment and academic integrity. This study attempts to enhance understanding by exploring learners' AI usage patterns and perspectives in online language learning and assessment, offering researchers insights into rethinking the role of LLMs for both learners and educators in higher education.

### **AI language models for language learning**

Generative AI refers to deep learning models capable of generating high-quality text, images, and other content based on the data they were trained on (Lambert & Stevens, 2023). LLMs represent a subfield within generative AI, specialising in manipulating and generating human-like text (Perkins, 2023). Chatbots are examples of LLMs, a type of AI that can be trained on extensive text data. These models can generate human-like text, translate languages, create various types of creative content, and answer individuals' questions informatively (Jiang et al., 2022). While LLMs and AI chatbots share some similarities, they serve different purposes. LLMs focus on understanding and generating human-like text, having been trained on extensive datasets (Jiang et al., 2022; Myers et al., 2024). In contrast, chatbots utilise LLMs and Natural Language Processing to simulate conversations, with an emphasis on user interaction. They maintain context and achieve specific goals during the interaction flow (Tlili et al., 2023). In today's rapidly changing world, students are increasingly using AI chatbots (Alrajhi, 2024; Barrot, 2023; Chan & Hu, 2023; Kohnke et al., 2023) and other AI-powered tools (Gayed et al., 2022; Özer & Yükselir, 2023; Zhao, 2023) for language learning purposes.

In the context of online language learning, students' attitudes towards the use of AI can be categorised into two distinct groups. The first group views the use of AI as unethical, bordering on cheating, and refrains from using it in their learning process. Conversely, the second group actively incorporates AI into their learning process and embraces its benefits. A growing body of research has been conducted to understand university students' perceptions of AI usage in learning. For example, studies conducted in China

(Chan & Hu, 2023; Xiao & Zhi, 2023) highlight students' positive attitudes towards using AI in their academic pursuits. However, these studies, alongside several others (Chan & Hu, 2023; Tlili et al., 2023; Walter, 2024), stress the importance of exercising caution when employing AI, as misuse can impede rather than enhance learning process. For example, Kohnke et al. (2023) investigated the accuracy of chatbot responses in English grammar. Surprisingly, despite the chatbot's confident tone, some of its answers were factually incorrect. This highlights the importance of careful evaluation by learners when using AI-generated responses.

In essence, AI language models have the potential to revolutionise how we teach and learn, from creating assignments to automating self-feedback (Crompton & Burke, 2023). At this point, it is important to distinguish between feedback and revision. Although feedback is commonly discussed in the literature concerning the features of AI language models (Huang et al., 2023; Walter, 2024; Yeo, 2023), what these models primarily offer are suggestions or text edits. The models can identify grammatical errors, suggest synonyms, and ensure proper formatting (Hwang et al., 2023). However, they often struggle with understanding context, may suggest revisions that alter the intended meaning, and have difficulty analysing the logic or flow of arguments presented (Kotlyar et al., 2023; Tlili et al., 2023). In essence, AI chatbots can serve as valuable tools in the revision process, but they are still far from replacing human feedback from teachers or peers.

AI language models can help to lower the language barrier for English L2 speakers, such as EFL and ESL learners and their teachers, by enabling them to improve their learning (Bao, 2019; Perkins, 2023) and increase their self-confidence (Castellanos-Gomez, 2023). The ability of AI to complete complex cognitive tasks more affordably, swiftly, and accurately than humans is key to much of its promise in these fields.

AI chatbots also allow quick access to information, such as understanding the main idea of a passage (Zhao, 2023) or clarification of the meaning of words in texts (Alrajhi, 2024; Hsu et al., 2023). For example, students can encounter unfamiliar vocabulary or complex sentence structures, and they can prompt AI language models to rephrase sentences in simpler terms. However, it is important to approach AI's capability to summarise texts with caution, as it is not equally successful across different text types and difficulty levels. For instance, while AI can summarise basic passages with a certain

level of accuracy, it shows limited accuracy when used for interpreting irony, sarcasm, and creativity (Swiecki et al., 2022). Additionally, regardless of the type and level of the text, it should be complemented by human expertise to ensure the depth, accuracy, and critical analysis required to interpret the hedging expressed by academic writers (Izadi & Forouzanfar, 2024).

Another benefit that AI brings to language learners is the ability to receive instant suggestions on language usage (Huang et al., 2023; Walter, 2024). Moreover, AI can also serve as a facilitator, giving students more opportunities to practise their language skills, such as by simulating conversations (Bao, 2019; Castellanos-Gomez, 2023). AI language models can facilitate learners' interactions in English by generating contexts that closely resemble real-world scenarios (Alrajhi, 2024). For example, students can engage with an AI chatbot to practise ordering food at a restaurant or booking a hotel room (Walter, 2024). In a quasi-experimental study by Hwang et al. (2023), students were exposed to contexts resembling real life, generated by AI. This exposure led to personalised learning experiences and immediate editing of their written work, allowing students to identify their strengths and weaknesses and develop effective strategies for improvement. However, language teachers should critically evaluate AI-generated responses and consider their relevance and accuracy in simulated scenarios that resemble real-life situations, as the quality and authenticity of the context depend on the training data used by the AI (Walter, 2024).

To enhance the overall quality of their written work, students can use AI-powered writing tools that provide immediate suggestions on grammar, spelling, punctuation, style and suggestions for sentence structure, word choice, and tone (Hwang et al., 2023; Yeo, 2023). Additionally, they offer example sentences and translations (Jiang et al., 2022; Kohnke et al., 2023). Consequently, students can tailor their learning experiences to their individual needs and preferences, thanks to the capabilities of AI language models (Hwang et al., 2023; Yang et al., 2022).

### **Foreign language learning assessment in the era of AI**

The traditional approach to evaluating language learners, which typically involves rubrics and teacher assessments, is being partially transformed through the integration of AI. Automated language assessment tools now provide the potential for a multi-

faceted analysis of learners' written and spoken work, surpassing the constraints of traditional methods (Swiecki et al., 2023). AI algorithms can delve beyond surface-level grammar and vocabulary. They assess aspects such as fluency, coherence, and pragmatic appropriateness with high precision (Jin & Fan, 2023). This advancement paves the way for detailed, customised and automated performance reports on students' assignments or assessments, identifying areas of strength and weakness to guide learners' improvement. However, language teachers should exercise caution, as AI is just a valuable tool to complement teachers. This limitation arises from AI's struggles in understanding the context behind student work (Tlili et al., 2023) and the lack of holistic assessment (Kotlyar et al., 2023), among other factors. In terms of AI's potential to identify language learners' strengths and weaknesses in assessments, Xu et al. (2021), for example, demonstrated the effectiveness of automated scoring by analysing candidate responses from an online oral English test. Similarly, Mizumoto and Eguchi (2023) explored the feasibility of using LLMs for automated essay scoring, suggesting they could be a viable alternative for evaluating, and recommending edits for, EFL writing. However, automated assessment of students' written work or using AI to generate student-specific revision suggestions comes with its problems, and one of the most serious concerns is around student data privacy. This concern arises due to the fact that AI language models rely on user data for their training (Franco D'Souza et al., 2024; Myers et al., 2024). Another significant impediment to teachers adopting such practices is the risk of bias when AI is used to evaluate students' written work or offer revisions. This bias can result from the inherent biases present in AI algorithms. Biased scores may lead to unfair practices with negative consequences for student learning (Matta et al., 2023).

Cheating through the use of AI and plagiarism have emerged as major ethical issues in the administration of online tests and assignments (Ciaccio, 2023; Cotton et al., 2024). Indeed, the potential for students to use AI to generate responses or complete assignments has led to increased scrutiny of such technology in academic settings. While AI-powered plagiarism detection tools are available, their efficacy requires continuous development and adaptation to stay ahead of evolving tactics (Cotton et al., 2024). The ethical implications of AI-driven assessment also demand attention (Yeo, 2023). Although students can use AI to generate plain language explanations for understanding complex topics, thereby saving time and receiving valuable information

through specific examples that can facilitate comprehension, it is essential to recognise that irresponsible use of AI may hinder the development of high-order critical thinking skills (Sullivan et al., 2023). This equilibrium ensures that learners are evaluated not merely on their output, but also on their thought processes and critical engagement with the language (Xu et al., 2021). In addition to the challenges related to limited human interaction and criticality in AI outputs (Butson & Spronken-Smith, 2024), AI language models used in language learning and assessment present several complex issues for language educators. These challenges create new obstacles in maintaining academic integrity (Sullivan et al., 2023; Yeo, 2023).

### **Boundaries between ethical and unethical AI practices among university students**

Clearly, online learning has become more commonplace in universities, especially after the COVID-19 pandemic (Perkins, 2023). However, it is associated with several risks, one of the most serious being the abundance of empirical evidence suggesting that students do not learn as effectively through online learning as they do in face-to-face classroom settings with a teacher (Bird et al., 2022; Lin, 2022). Additionally, online learning has been associated with increased risks to academic integrity in assessments (Gribbins & Bonk, 2023; Sullivan et al., 2023), despite its benefits for both students and teachers (Jiang et al., 2023; Xiao & Zhi, 2023). Research indicates that the specific circumstances of the pandemic have led to an increase in cases of academic dishonesty among university students (Gribbins & Bonk, 2023; Yeo, 2023). In other words, in the context of online language classes, there is always a valid concern regarding students' potential engagement in unethical behaviours while interacting with AI. These practices occur knowingly or unknowingly and may include the use of fabricated references in assignments and exam papers, cheating, submitting assessments containing incorrect or biased information, and a lack of transparency. It is worth noting that students committed to academic integrity can discern fake references, as they form arguments based on their reading of sources of interest. However, even when consulting ideas attributed to these sources by AI, they must read them carefully to verify if those ideas are genuinely stated. Alternatively, conscientious students may choose to abstain from using AI tools altogether.

Standards concerning students' AI usage should be explicit and clearly outline what is expected of students, particularly in terms of documentation and attribution in the use of LLMs. Specifically, to ensure that the benefits of AI chatbots in language learning outweigh the challenges, several priorities can be considered. These include universities' investments in technology to prevent and detect cheating, such as lockdown browsers and AI detection tools (Dawson et al., 2024), clear academic integrity policies (Luo, 2024), training to promote students' ethical use of AI (Cardon et al., 2023), and in-service training to prepare teachers for scenarios centred around students' problematic AI use that they may encounter in their courses (Cotton et al., 2024).

Violations of academic integrity of foreign language learners can be broadly categorised into several areas: cheating (Sullivan et al., 2023; Sweeney, 2023), the spread of misinformation, bias (Lambert & Stevens, 2023), misuse (Ciaccio, 2023), and privacy concerns (Lambert & Stevens, 2023; Tlili et al., 2023). For instance, while students write their essays and then employ AI-powered writing assistants to verify the accuracy of their corrections in the writing assessment, others rely on these same tools to write entire assignments without truly understanding the grammar rules. In another scenario, students with presentation assignments might generate AI-generated content online and present it in the classroom, passing it off as original work. Such practices not only violate academic integrity but also impede students' independent learning (Cardon et al., 2023). While cheating constitutes a significant portion of academic misconduct, another major concern for EFL learners could be the risk of over-reliance on generative AI for their coursework (Barrot, 2023; Chan & Hu, 2023). According to Xu et al. (2021), this effortlessly created information can have a detrimental effect on students' capacity for critical thought and problem-solving.

In line with the considerations regarding the use of AI in coursework, students are expected to ensure that their work remains fundamentally their own, even when incorporating AI suggestions into their original assignments.

### **The present study**

To address the research gap identified in previous sections, this exploratory study aimed to investigate the perceptions and experiences of university students taking

online English as a foreign language classes regarding the integration of AI in their coursework. Therefore, the study investigated the impact of AI language models on online learning and assessment practices, exploring both the opportunities and challenges they present. The study drew on language learners' personal experiences and perceptions to inform the analysis. More specifically, the present study investigated the use of AI language models and other AI-powered internet tools by university students studying through the medium of English. The focus was on understanding the methods and purposes for which these tools are employed in learning, preparing assignments, projects, and exam papers during online learning. This study addresses one central question: *How do university students use AI-powered tools while taking foreign language classes online?*

What sets this study apart from other research conducted in the past two years that has explored language learners' use of AI is twofold. Firstly, it concentrated on both language learning and assessment aspects within the context of online language courses in higher education. Secondly, it enhanced understanding by examining language learners' patterns of AI usage and their perspectives on learning and assessments, particularly in relation to academic integrity. As a result, this study provided valuable insights for re-evaluating the scope of university-wide academic integrity policies and AI guidelines in higher education.

This study employs a qualitative exploratory research design utilising an open-ended survey to investigate the perceptions and experiences of EFL students taking online foreign language classes concerning the integration of AI in their coursework, employing thematic analysis to identify recurring themes and insights into the impact of AI on language learning practices within a higher education context.

### **Participants**

The study was conducted at a medium-sized state university in the south of Turkey. The institution offers undergraduate programs that typically fall under the fields of engineering or business administration. The university provides English-medium instruction, so students are expected to take additional English courses throughout their studies. Thus, the participants were enrolled in courses in General English, English for Academic Purposes, or Academic Writing.

The researcher first sought ethical approval from the university's scientific ethics board. The approval, identified by document number 71093-05/4, was duly acquired. After obtaining ethical clearance, the researcher posted invitations on interactive forum websites for students to recruit a diverse group of participants. Of the 71 students who clicked on the survey link, a total of 54 provided written consent to participate in the research and submitted their responses. The study participants consisted of 29 females and 25 males, with none reporting an alternative gender identity. They were aged between 18 and 31 and were students from various undergraduate programmes, including management and information systems, mechanical engineering, and business administration. The participants comprised Year 2 ( $n = 7$ ), Year 3 ( $n = 24$ ), and Year 4 ( $n = 23$ ) students.

### **Data-gathering instrument**

To understand the university students' experiences and viewpoints on the use of AI language models in online language classes, a qualitative research approach was adopted, driven by two main motivations. Firstly, the researcher aimed to gain a deeper contextual understanding by encouraging participants to share their personal and educational backgrounds. Secondly, it was sought to explore the sensitive topic of AI use in online courses in a flexible manner, without any preconceived hypotheses. To address various aspects, the researcher designed open-ended questions partly inspired by the assignment-related items from a survey developed by Chan (2023). Her study specifically investigated the experiences of university students across diverse academic disciplines in Hong Kong. The participants provided responses to open-ended questions through an online platform. The questionnaire consisted of 12 optional questions, allowing respondents freely decide to answer or skip them. The rationale for including optional questions was primarily driven by the researcher's commitment to respecting respondents' autonomy and the aim of collecting genuine responses. Some examples of the questions were as follows:

- Could you describe an instance where you utilised AI to generate text for an assignment or examination?
- What motivated you to use AI for text generation in assessments?
- Have you faced any issues or challenges while using AI for text generation in assignments and examinations? If so, could you describe them?

- Could you provide an example of an acceptable use of AI language models in the context of an online class in your programme?
- Could you provide an example of an unacceptable use of AI language models in the context of an online class in your programme?

### **Data analysis**

Braun and Clarke's (2006) six-phase approach to thematic analysis served as the foundation for the analysis. The data collected from the questionnaire were analysed inductively using thematic analysis, allowing themes to emerge organically from the data rather than being predetermined by the researcher. The dataset was coded in several readings and coding phases by the author and another researcher from another university in a neighbouring city. To increase credibility and trustworthiness, the researchers had several online sessions during which they coded the data separately and then discussed the initial themes together, until they agreed on the names of the themes and the relationships between them. To support and exemplify the identified themes, verbatim excerpts are included. These excerpts are presented in their original form to accurately reflect the respondents' voices. Decisions were made based on thematic significance, clarity, coherence, and relevance to the study objective while selecting the direct quotes to be included in the study's findings. The terms 'FS' and 'MS', used in the results section, are abbreviations denoting 'Female Student' and 'Male Student' respectively. These abbreviations have been employed to maintain anonymity while ensuring precise identification within the context of this study. Frequencies have been included in the results section to offer readers an indication of the prevalence of specific ideas.

## **Results**

Initially, the data were subjected to thematic analysis and four major themes were identified. These themes include: (1) misuse of AI, (2) enhancement of learning, (3) language learning support, and (4) AI policy and expectations from teachers.

### **Misuse of AI**

The first main theme pertains to the unethical use of AI language models, which includes the sub-themes of cheating in exams ( $f = 17$ ) and plagiarism ( $f = 8$ ).

Respondents' views on using AI language models for online language learning were diverse, with opinions spanning from ethical to unethical. However, all respondents concurred that the ethicality ultimately depends on the student's purpose for using it. Many respondents believed that using AI to prepare their online submissions, such as projects, assignments, and exam papers, can be viewed as either ethical or unethical, depending on its application. A common viewpoint among many respondents was: *"It depends on what we use it for. If we use it to improve what we have already written, this cannot be considered a form of cheating. However, if we allow AI to prepare an answer for us and use it without much alteration, that is definitely cheating"* (FS-21).

Some students specifically stated that they used these tools to enhance the overall quality of their work ( $f = 16$ ), not to generate a paper on their behalf. Therefore, they argued that using these tools in this manner did not violate academic integrity. However, this is not always the case, as some respondents suggested that the authorship of certain university tasks may not always be human ( $f = 8$ ). It appears that in some instances, students prompt the AI to generate a paper and then submit that paper as their own. For example, FS-22 stated, *"[it is] a piece of work in which no effort has been invested"*. Another student (MS-23) highlighted the issues of cheating in exams and authorship, *"Some classmates use it to cheat in exams. For instance, they have the AI prepare their assignment for them, add their name, and submit it as if they had prepared it themselves"*.

Students also emphasised the importance of transparency regarding their own contributions and the role played by AI ( $f = 4$ ). This transparency involves disclosing the specific AI tools or resources used and explaining the extent of AI's contribution to their work. For example, a student expressed his expectation from teachers by saying, *"I use AI to fine-tune my work, but some of my classmates do just the opposite. They have AI create their work and submit it after making some changes. Is this fair?"* (MS-23). The theme of plagiarism addresses the types of AI usage in which students use AI language models to generate text without citing the source. Apparently, some students were unaware that AI-written texts may lack proper attribution to original work or may even create fake citations. This issue was voiced by many respondents ( $f = 8$ ) and two of them are as follows: *"Why would it be plagiarism? After all, it gathers what it can find on the internet"* (FS-1). Another student shared a similar view, *"It also gives its citations, so it is not plagiarised"* (FS-29).

### Enhancement of learning

The second main theme relates to the enhancement of learning, encompassing various aspects of the positive impact that AI technology can have on student learning. These sub-themes are immediate feedback ( $f = 23$ ) and personalised learning ( $f = 19$ ). Specifically, through AI writing assistants and chatbots, students can draft content and receive feedback on its quality and adherence to assignment requirements, before submitting it to their lecturer. For example, FS-26 stated, *“First, I ask AI to explain the question, so I become 100% sure of what I have understood is right.”* Another student (MS-21) emphasised the importance of immediate feedback in his learning, stating, *“It’s not much different from asking a classmate for his opinion on what you have prepared, with the significant difference that this time it is instantaneous”*. Some other students pointed out the 24/7 availability of the feedback they receive from AI ( $f = 9$ ). For example, MS-19 said, *“I can ask 24/7 [for feedback] as it is virtual”*.

There is also another way students use AI ( $f = 6$ ): to summarise and synthesise a text they are supposed to read. This practice is evident in many responses. For instance, FS-19 said, *“I generally [use it] to summarise the topic or to list the content”*, and another student (FS-14) showed a similar use by saying, *“I use it to get a general idea [about the text] first and this way it becomes clear which part I should focus on”*.

### Language learning support

The third main theme is ‘language learning support’, encompassing two sub-themes: language improvement ( $f = 25$ ) and real-world language learning ( $f = 6$ ). AI language models can bolster students’ foreign language proficiency in numerous ways, spanning all four skills and other areas of language proficiency. Besides assisting in the development of all four language skills, AI also provides grammar correction and vocabulary expansion ( $f = 7$ ). For example, MS-23 said, *“With fewer grammatical errors and spelling mistakes, I can submit my papers. AI shows me my mistakes”*. Another student showed a similar use by saying, *“I once used it to find the conjunction to connect the two sentences I wrote”* (MS-7). In a similar vein, MS-10 highlighted the functionality of AI language models as a free proofreader, *“My experience [with AI] showed that it is an effective proofreader. It assists me in paraphrasing, finding right prepositions, and using sophisticated language structures”* (MS-10).

AI language models support students by simulating real-world examples, offering them the opportunity to enhance their cultural awareness and make learning more meaningful by helping to contextualise language through role-play scenarios ( $f = 6$ ). One student, MS-4, said, “*I look for language structures that look natural*”. Another student, MS-21, stated, “*I use it to find examples of language that is used by native speakers. It is an amazing resource that is free of charge and never says no*”. Similarly, FS-22 used AI to check real-life examples, “*I use it to see examples from the US*”. MS-10 emphasised the versatile aspect of AI in enhancing language learning, “*AI is a proficient proofreader for various dialects including Australian English, British English, and American English*” (MS-10).

While students acknowledged the benefits of AI, they also expressed concerns about overreliance ( $f = 4$ ). They stated that regularly using chatbots to complete assignments could lead to laziness, thereby negatively affecting their language and problem-solving skills. For instance, one student remarked, “*It just made me lazier*” (FS-13), while another student, expressing concern about depending too much on AI language models, said, “[It is] *usually positive, but I suspect it is inhibiting my creativity and might be making me lazy*” (MS-18). Additionally, FS-22 described an experience in which she used AI to complete her assignment, noting, “*Not much effort put in; not a product of genuine effort*”.

### **AI policy and expectations from teachers**

The last main theme, AI-policy and expectations from teachers, consists of two sub-themes: the promotion of responsible use of AI ( $f = 24$ ) and the development of a university-wide AI policy ( $f = 6$ ). Approximately half of the students believed that teachers should allow responsible AI usage in the creation of their coursework ( $f = 24$ ). Regarding students’ expectations from teachers, one student stated, “*the use of AI should be permitted [in coursework], especially for research purposes*” (MS-7). FS-10 also expressed that there is no issue with using AI in university, stating, “*It is acceptable [to use AI] to access and digest information, and to prepare our papers*”. Some students suggested that AI should be allowed but under certain conditions ( $f = 7$ ), while expressing serious concerns. For instance, FS-14 said, “*Unless the AI-generated content is not used entirely and no plagiarism is committed, it can be used.*”

*However, to be honest, it's not an easy path for students to follow, so plagiarism is often unavoidable”.*

Students' desire for responsible AI use extends to clear guidelines, with examples of acceptable and unacceptable practices provided. One student, for instance, expressed that students may not always know what is acceptable or not, stating “*Everything [explicit guidelines on ethical AI use] should be clearly stated*” (MS-22). Students also had high expectations of their teachers, including a desire for a university-wide AI policy that outlines what constitutes acceptable and unacceptable practices in the context of responsible AI use ( $f = 6$ ). According to students, such a policy empowered them to make ethically sound decisions, promoting a culture of responsible AI use among students. For example, FS-22 said, “*Firstly, what is right and what is wrong should be clearly exemplified. I am not sure if there is such a practice in our school*”. Expressing a view regarding the welcoming use of AI at university, one student suggested, “*It [the policy] should encourage students' use of AI in all cases except for examinations*” (MS-16). A similar view supported a university policy that encourages students to use AI as a learning resource to enhance the quality of their work, “[...] a policy that encourages us to make revisions to our work” (FS-20).

## Discussion

In this study, participants fell into two distinct categories based on their views regarding the use of AI in English learning. Despite students generally favouring digital technologies to enhance their learning, the data analysis revealed a contrasting situation among the participants. Interestingly, the first group expressed strong reservations about AI usage. They feared that its adoption could lead to unethical practices. Conversely, the second group took an opposing stance. They believed that AI had significant potential to enhance learning. However, they also emphasized the critical importance of responsible AI usage to maintain academic integrity. Based on the students' responses, this study identified the main themes of ‘misuse of AI’, ‘enhancing learning’, ‘supporting language learning’, and ‘AI policy and teacher expectations’.

AI language models raise a range of challenges and concerns. These issues ultimately lead to potentially problematic behaviours amongst students, including the misuse of

AI technologies in academic settings, especially in the form of cheating and plagiarism during online tests. Several studies have reported that the use of AI could potentially encourage students to cheat during exams (Ciaccio, 2023; Cotton et al., 2024; Fyfe, 2023). Many students believed that promoting responsible AI usage and making it mandatory for students to disclose the AI tool's contribution to their work are essential steps to reduce instances of improper AI use. Another issue reported by the participants was the need for transparency. Similar to the findings of the present study, research involving diverse student samples from a variety of backgrounds and settings has demonstrated the importance of transparency (Chan, 2023). Consequently, students should explicitly state whether an assignment being submitted was created with the assistance of AI, indicating what part of the work was entirely their own, and specifically describing the contribution of AI (Sweeney, 2023; Yeo, 2023). To address such concerns, a promising approach for teachers in academic writing and scientific writing courses may be to adopt process writing strategies (Cotton et al., 2024). Building on this, Sweeney (2023) and Yeo (2023) argue that employing a formative assessment process alongside explicit instructions has proven effective in countering authorship concerns.

One central issue students mentioned concerning the misuse of AI was the concern that users might become overly reliant on AI. This could lead to a reduction in their problem-solving skills and potentially foster laziness in their language learning process. Recent studies have documented AI's use as a proofreader and, more notably, as a writing assistant. It is noteworthy that AI is often capable of identifying surface-level errors such as typos, punctuation inconsistencies, and grammatical mistakes (Marzuki et al., 2023), and it provides timely and adaptive editing of texts (Barrot, 2023; Jiang et al., 2023), but it struggles with nuanced writing styles and contexts (Swiecki et al., 2022). Despite the apparent time-saving benefits of using AI for such purposes, simply relying on AI edits without actively analysing AI suggestions and understanding the reasoning behind them could be detrimental (Chan & Hu, 2023). In other words, although AI offers numerous benefits in language learning, there is a concern that students may become less autonomous due to an over-reliance on this technology. This could result in fewer conscious learning decisions being made by the students. This finding aligns with studies conducted by Ahmad et al. (2023) and Malik et al. (2023), whose findings are based on students' perceptions, reinforcing the need

for a balanced approach to AI use in education. Ahmad et al. (2023), for instance, are among the researchers who have identified a link between the use of AI and the reduction in human decision-making. Essentially, their study illustrates how AI significantly reduces human decision-making capacity, making students less critical.

By interacting with LLMs, students can receive information and explanations tailored to their specific needs and understanding levels, often readily available at no cost. In addition to being cost-effective, AI is also advantageous for language learners to receive revision suggestions from anywhere, which sets it apart from humans. Consequently, students can seek answers to their questions on a specific topic without any time constraints. Studies by Hwang et al. (2023) and Zhao (2023) unanimously corroborate this finding, further highlighting the potentially pivotal role of AI in generating learning materials based on the students' level and learning styles. Additionally, a similar conclusion was drawn from the analysis of perspectives provided by 399 students in universities in Hong Kong, as reported by Chan and Hu (2023). While they confirmed the potential of LLMs for immediate learning support, they also expressed concerns about its impact on students' critical thinking, creativity and potential ethical issues.

The study has highlighted numerous ways in which generative AI assists language learners in enhancing their language proficiency. Language development is facilitated by simulating conversations that resemble real-world interactions. Most respondents primarily utilise AI as a proofreader, among various other purposes. This allows language learners to use the chatbot for practising conversations without the anxiety that may arise when conversing with a person, enabling them to practise everyday situations in a foreign language in a simulated setting. The function of AI as a proofreader becomes especially important when considering how much a student can really afford to invest in her language education, which can vary greatly across countries and backgrounds. In other words, while some students can travel to the countries in which the L2 is spoken as a first language for educational purposes, such as university trips or touristic purposes throughout the year, other language learners from various countries or backgrounds may not have that financial freedom to experience language as it is spoken in real life. This kind of interaction, which can be available at no cost thanks to AI chatbots, can provide learners from underprivileged backgrounds with the opportunity to use L2 in contexts that resemble real-world

interactions, thereby boosting their confidence and fluency. With guidance from teachers, this technology can also help bridge the gap between underprivileged and privileged students. However, if the limitations of AI are not acknowledged and the risks associated with its use are not understood, underprivileged learners may miss out on the potential benefits of AI or even develop misconceptions about the language.

Interestingly, the findings also revealed that the participants did not view the use of AI chatbots for research, writing improvement, and cross-checking when studying for exams as cheating. Rather, many respondents reportedly used AI as a learning facilitator. Recent studies have also reported that LLMs serve as a readily available platform to facilitate writing learning (Barrot, 2023; Hwang et al., 2023). For instance, these students can use AI to concisely summarise texts. This enables them to grasp the core concepts and subsequently determine whether the content is suitable as a foundation for their assignments. However, one potential problem with this practice is AI's limited ability to critically evaluate arguments and handle academic hedging (Izadi & Forouzanfar, 2024). In addition to potential misinterpretations and limited ability in understanding the nuances of natural language (Swiecki et al., 2022), becoming overly reliant on AI tools is also a risk factor for language learners (Ahmad et al., 2023). Universities could consider organising AI language model training activities for each group of students. This would give students a firsthand look at the capabilities and drawbacks of AI, promoting responsible AI use.

This study revealed that another reason for students' misuse of AI is the lack of explicit guidelines. This aligns with the findings of Chan (2023), Perkins (2023), Sullivan et al. (2023) and Ventayen (2023), which emphasise the need for clear guidelines about acceptable and unacceptable practices. Similarly, studies by Chan and Hu (2023) and Tlili et al. (2023), drawing on students' perceptions of AI, underscore the value of providing concrete examples of both appropriate and inappropriate AI use in learning contexts. Therefore, it is imperative for teachers to provide clear instructions to their students, and for the universities to implement policies that include explicit examples of acceptable and unacceptable behaviours. In other words, higher education institutions should clearly define in their AI policies what work students are expected to do independently and how they are required to validate or verify outputs from generative AI. However, it is worth noting that it is not the AI language models that lead to academic dishonesty practices among language learners; rather, it is the lack of

understanding and promotion of ethical conduct and academic integrity among some students. In other words, regardless of the fact that students are aware that AI might generate fake references, ultimately it is their responsibility to visit each resource they use in their assignment to verify the information. Additionally, universities should incorporate an awareness-raising component about AI use as part of their ongoing academic integrity training for students. Such training can encourage greater engagement in learning and increase the likelihood of students acting with integrity. The importance of such training for students has been reported in recent studies conducted at universities worldwide (Mvondo et al., 2023; Perkins, 2023; Sullivan et al., 2023).

### **Limitations and implications for future research**

This study has several limitations that should be considered when interpreting the findings. Firstly, the sample only included students from one programme in the engineering faculty and two programmes in the business faculty, which limits the representation of the population. Secondly, the data collection was not further diversified through interviews, which could have provided the researcher with non-verbal cues such as hesitation and excitement, as well as the opportunity to ask clarifying questions for a richer understanding of the learners' experience. Lastly, the fact that each participant responded to the questionnaire only once did not allow for an investigation of changes in learners' perceptions and experiences with LLMs.

This study has several pedagogical implications. The use of AI language models in online language learning is a promising area that is likely to witness a substantial growth in the near future. In this context, our study aligns with the findings reported by Tlili et al. (2023), which highlight the need for a fresh approach to teaching and learning assessment in higher education due to students' increasing adoption of AI chatbots. This shift in student and teacher behaviour opens up numerous opportunities to enrich students' learning experiences and facilitate teachers' work, while also presenting a plethora of concerns. Specifically, students can benefit from tailored exercises and suggestions for error correction, among other advantages, while teachers may find AI beneficial for tasks like progress tracking. Moreover, teachers can involve students in evaluating and critiquing AI outputs, encouraging them to identify strengths and weaknesses in AI-generated texts, with the ultimate purpose of fostering

critical thinking. Ultimately, integrating AI can free up valuable time for activities that promote higher-order thinking skills. However, teachers intending to use AI for assessment must consider many ethical implications, as it is challenging to determine where inputted data will end up. For instance, the tool may use this information to further train AI without the user's knowledge (Liao & Wortman Vaughan, 2024; Walter, 2024). In cases where teachers need to detect if a student assignment is written by AI, it would be prudent first to seek advice from university authorities, as these AI models are trained on massive datasets and could potentially identify or use student information in unintended ways (Lambert & Stevens, 2023).

The interplay between universities' academic integrity policies and teachers' guidance plays a pivotal role in ensuring that language learners employ generative AI models in a responsible and ethical manner. Such assistance can take the form of educating students about academic integrity when using AI as well as offering comprehensive guidelines on the use of generative AI. In addition to concerns about students cheating through AI-powered tools, the situation for some students might differ in that they could be oblivious to the threats posed by the use of AI. This underscores a broader challenge, as some students struggle to grasp the concept of academic integrity itself. In other words, they may be uncertain about what constitutes cheating or plagiarism. Therefore, AI guidelines should include detailed explanations and illustrative examples of both acceptable and unacceptable practices.

Despite its enormous potential, generative AI also has the capacity to undermine learning and teaching. Teachers must approach this integration with a cautious awareness of three potential risks. First, teachers should carefully monitor their students' progress because over-reliance on AI can hinder students' metacognitive development and autonomy in self-correction. Second, the nuanced understanding of learner errors offered by human assessment remains irreplaceable for metacognitive development, and teachers must avoid neglecting this vital aspect. Lastly, universities must actively equip teachers with adequate software training and strategies for identifying unattributed AI work in student assignments, thereby proactively addressing potential plagiarism concerns.

## Conclusion

The findings of this study contribute to the rapidly growing body of knowledge in this field, providing insightful information on how language learners interact with AI in higher education. It also highlights that using chatbots during examinations is widely considered cheating and, therefore, unethical. While many students do not view the use of AI language models for other types of homework, such as assignments and projects, as unethical, the majority oppose banning AI in educational contexts. The findings imply that regulating AI use of students in coursework is not a fool's errand but a necessary step that should be taken by universities. These results indicate a need for a clear AI language policy at universities. The students' expectations from such a policy are twofold. Firstly, students reportedly lack clarity on what they can do with generative AI as part of their course without violating academic integrity. Secondly, students' perceptions of responsible AI use vary greatly.

In conclusion, this study shows that generative AI offers numerous advantages to students taking General English, English for Academic Purposes, and Academic Writing online in their learning process. However, the study also reveals concerns that could potentially undermine student learning, such as an over-reliance on AI and a rise in plagiarism and cheating cases. In essence, the study concluded that AI language models offer both positive and negative potential in online language learning. With responsible use, it could assist students in improving their language skills, but when used irresponsibly, it could lead students to commit acts of academic dishonesty. The question appears not to be whether AI should be allowed in language learning settings, but rather how and to what extent it should be used responsibly by students. Therefore, there need to be more evidence-based discussions centred around the implementation of an AI policy during online language learning to guide future policies in higher education institutions.

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## ORCID iD

Omer Ozer  <https://orcid.org/0000-0001-8502-3145>

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