Reflecting on Chapelle's View of Open GenAI's Role in Language Education: Using ChatGPT for Academic Writing Courses in Higher Education

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Abstract

The rapid development and availability of Generative AI (GenAI) tools, such as ChatGPT, offer new possibilities for academia, yet they also raise concerns for academic integrity. Chapelle's (2024) seminal work on GenAI's implications serves as an impetus for this study, which explores teaching academic integrity in the context of AI use. Chapelle frames GenAI as an 'inflection point', calling for a re-evaluation of pedagogical strategies to support students in understanding its technological and ethical implications. This article presents findings from a mixed-methods study at a university in Cyprus, where ESL undergraduates in academic writing classes engaged with ChatGPT. Participants with B2/C1 English proficiency from diverse cultural backgrounds were assessed through pre- and post-intervention evaluations and qualitative interviews. A semester-long intervention incorporated activities to enhance academic writing skills and comprehension of ethical AI use, focusing on critical thinking, proper citation, and policy adherence. Findings indicate that students demonstrated increased AI knowledge and awareness of academic integrity. This study contributes to the discourse on integrating GenAI in academia, providing insights into effective instructional practices and addressing ethical considerations in academic writing. It offers guidance for educators and institutions aiming to integrate GenAI responsibly, ensuring academic integrity remains central in second language education.

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¹Introduction

The latest accelerated advancement of artificial intelligence (AI) technologies has brought about a proliferation of educational education tools that alter the landscape of higher education (Crompton & Burke 2023; Chaudhry & Kazim, 2021; Chu et al., 2022; UNESCO, 2019), and further highlighted in emerging research in language education contexts (Al-Khresheh, 2024; Barrot, 2024; Seo, 2024). Specifically, Generative AI (GenAI) tools, such as ChatGPT, demonstrate significant potential for transforming the face of second language teaching and learning (Han, 2024; Yan, 2023; Zou & Huang, 2023), presenting both opportunities and challenges. Developed and launched by OpenAI in November 2022, ChatGPT is a large language model capable of generating human-like text based on the input and training it receives. While this capability has the potential to enhance second language learning experiences, it also raises concerns relating to academic integrity.   These tools offer personalised learning support, real-time conversational partners, and serve as a resource for brainstorming and drafting academic content (AlBadarin, Tukiainen et al., 2023; Xiao, & Zhi, 2023). However, the ease of generating text with minimal effort raises concerns for academic integrity (Kostka & Toncelli, 2023; Su et al., 2023; Sullivan, et al., 2023). Thus, the dilemma faced by educators is how they can assess deep and authentic learning if they are unable to distinguish between AI and human-generated text (Alexander et al., 2023; Perkins, et al., 2024). In light of this, educators urgently need to ensure that the use of AI tools in education aligns with ethical standards and promotes genuine and deep learning.

This is a view prompted by Carol A. Chapelle (2024) in her commentary '*Open GenAI changes a lot, but not everything*', which inspired the current study and its analysis. Chapelle identifies the emergence of GenAI as an 'inflection point' requiring a critical re-evaluation of pedagogical strategies and urges educators to guide students in understanding the technological capabilities and ethical considerations of GenAI technologies. While tools like ChatGPT, provide a significant shift in language learning and teaching, they should not change core educational principles and values. Chapelle argues that language educators need to critically engage with these new technologies, recognising both their benefits and their limitations.

On one hand, Chapelle (2024) acknowledges the potential of GenAI to increase student engagement highlighting its multimodal capabilities for language learning and empowering learners, with tools such as translation, text-to-speech synthesis, and real-time interactions, which provide personalised feedback. However, Chapelle (2024) also calls for more descriptive research to explore the new knowledge and teaching methods that allow language teachers to effectively integrate AI tools into language learning. Additionally, she emphasises the importance of guiding students in responsible and ethical AI use. In sum, her perspective informs this present study as it seeks to explore

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how AI tools like ChatGPT may be integrated into academic writing courses while addressing issues around academic integrity, critical thinking, and ethical AI use.

Against this background, the present study explored the integration of ChatGPT into B2/C1 ESL academic writing classes at a higher education institution in Cyprus, based on three primary objectives: (i) evaluating ChatGPT's efficacy in enhancing students' understanding of academic integrity, (ii) identifying the benefits and limitations of using AI tools like ChatGPT in academic writing, and (iii) providing pedagogical recommendations for the future integration of AI tools in academic settings. By addressing these objectives, the study seeks to provide comprehensive insights into the practical and ethical dimensions of using GenAI in education. Specifically, the central research question guiding the study is:

RQ1: How might a pedagogical intervention using ChatGPT influence university students' academic writing skills and their understanding of academic integrity?

Drawing on Chapelle's (2024) critical perspectives, this study examines the practical application of ChatGPT in ESL academic writing classes. It is hoped that the findings will contribute to the emerging discourse on integrating AI tools in education, and provide recommendations for developing a framework to promote academic integrity.

The Potential of Using AI in Second Language Teaching
The research literature highlights several ways in which GenAI tools can improve the teaching of English as a Second Language (ESL). One challenge that ESL teachers face is providing adequate practice and consistent feedback to large, often mixed-ability classes. In these situations, GenAI can provide objective and instructive feedback to help students improve their English skills (Li, 2022). Similarly, AI offers the potential for teachers to cater to the individual learning needs of the student and improve evaluation methods (Zhao, 2021). AI technologies, such as Natural Language Processing, Data Driven Learning, Automated Writing Evaluation, Intelligent Tutoring Systems, Automated Speech Recognition and chatbots, have proven effective in advancing second language learning across various dialects (Almelhes, 2023; Son et al., 2023). These tools increase teaching efficiency and allow educators to review student progress and provide more personalised and targeted instruction (Li, 2021; Yu, 2021). For example, chatbots can assist ESL learners with translations, text-to-speech and dialogue practice (Li, 2022; Vyawahare & Chakradeo, 2020). Moreover, AI tools can address intercultural communication issues. For example, it is noted that in China, foreign language teaching is dominated by Western European and American cultures which limit students' exposure to local contexts and may impede students' understanding. In such cases, AI tools can integrate local culture into global learning frameworks (Luo & Cheng, 2020).

Other benefits of AI technology for second language learning were evident during the COVID-19 pandemic. One study found that AI software helped students pay attention to

specific language items repeated throughout every stage of a communicative task (Wei et al., 2021). During this period of emergency remote teaching, AI tools were used to activate prior knowledge through brainstorming, delivering targeted practice to internalise new language structures and supporting students to transition from input to output skills in meaningful context-based tasks.

The Challenges of Using AI in Second Language Teaching

Alongside the benefits, these same studies also acknowledge challenges associated with using AI technologies in second language teaching. One concern is that over-dependence on AI technologies could result in passive learning, reducing students' creativity, critical thinking and problem-solving skills (Kostka & Toncelli, 2023; Sullivan et et al, 2023). Similarly, while AI technologies are designed to simulate human intelligence and support learners' interaction with a chatbot, they cannot entirely replace the need for human interaction, which is necessary for developing conversational skills (Almelhes, 2023).

Moreover, AI's role as a 'disruptive' technology raises concerns about inclusion, equality and bias. It has been argued that AI may deepen existing educational inequalities with marginalised members of society being excluded from AI powered education, in a new kind of digital divide (UNESCO, 2019). Additionally, AI technologies trained on biased databases risk perpetuating stereotypes and discriminatory language (Han, 2024), disproportionately affecting marginalised groups, including speakers of non-standard dialects or those from diverse linguistic backgrounds (Baker & Hawn, 2022). While biases can be mitigated by diversifying training data, designing algorithms to detect bias, and implementing regulatory frameworks, educators can play a role in ensuring that both they and their students critically engage with these technologies and understand their limitations.

Academic Integrity and the Use of AI in Second Language Teaching

Perhaps the most critical challenge posed by GenAI tools, like ChatGPT, is the threat to academic integrity, as they make it easier for students to cheat, plagiarise and generate assignments with ease (Sullivan et al., 2023). Academic integrity typically refers to the intentional, or unintentional, violation of an academic institution's policies, usually concerning issues of plagiarism (Perkins, 2023). Perkins (2023) argues that this type of misconduct requires urgent redefinition due to the ease of accessibility of large language models. For example, in cases, where the student intentionally attempts to misrepresent work as their effort, this may be a clear-cut breach of ethical integrity, but there are ambiguities when students may use AI as a starting point or integrate ideas and citations into their work. On a more general level, detecting plagiarism is currently difficult since AI generates original content that may not be detectable by human evaluators or traditional and/or AI plagiarism detection tools (Alexander et al., 2023).

Perkins (2023) also refers to the challenges presented by what is referred to as 'cognitive offloading' in which the use of GenAI tools reduces the cognitive demands typically required by learners to complete academic tasks. Specifically, in second language teaching, the use of GenAI tools introduces new challenges as students may misrepresent the effort needed to complete assignments without demonstrating their linguistic competence. For example, the use of ChatGPT in second language writing can produce responses that are inaccurate or unclear, often depending on the quality of the input prompt. Additionally, formulaic responses that lack creativity and/or originality are also noted as characteristic of ChatGPT (Barrot, 2023). Other concerns include students over-relying on AI-generated content without fully understanding or being able to reproduce the materials, as well as the unfair advantage GenAI use gives them over other students who do not use these tools (Cotton et al., 2024).

There are many recommendations for the ethical use of AI in second language learning. These include using AI for language practice and formative assessment rather than graded final assignments (Han, 2024), giving personalised feedback and real-time corrections (Li, 2022), and ensuring that evaluation strategies reflect students' real-world language capabilities. Additional strategies include requiring drafts, utilising anti-plagiarism software, defining clear, context specific standards and carefully overseeing student progress (Cotton et al., 2024). Updating assessment methods such as computerised dynamic assessment (Son et al., 2023), and incorporating AI literacy as a core part of the language curricula are also recommended to enable teachers and students to understand the capabilities and limitations of GenAI in language learning.

Returning to Chapelle's (2024) commentary on the use of GenAI in second language teaching, academic integrity remains a fundamental concern. Chapelle emphasises the importance of encouraging students to critically engage with technology 'guided by human teachers' (p.534), emphasising the need to develop their critical thinking skills. Despite their ascribed identities as 'digital natives' (Prensky 2009), students still require guidance on using AI technologies without compromising their learning or breaching ethical integrity. Chapelle urges teachers to 'caution students not to let AI befriend them, not to believe its lies, and not to take its stolen language' (p.539). She further advocates for pedagogical strategies that are 'carefully designed, appropriate to the needs of learners, engaged with over a sufficient span of time, and investigated with an appropriate methodology' (p. 537). In sum, Chapelle's insights frame the responsibilities of educators in maintaining academic integrity while utilising the potential of AI in language education.

A Conceptual Frame for Exploring GenAI in Second Language Teaching
Using an action research study, the researchers integrated AI into academic writing tasks following constructive learning theory and the ethical use of technology. Constructivist theories (Vygotsky, 1978; Piaget, 1970) emphasise learners actively constructing

knowledge through experiential learning and reflection. By incorporating AI tools in academic writing tasks, the researchers aimed to encourage students to engage critically with their writing and explore, experiment and receive immediate feedback. In this sense, AI tools were used to support active learning and deepen students' understanding of the writing process through the constructivist principle of 'scaffolding' (Bruner, 1978) with the support of ChatGPT.

An additional part of the conceptual lens used in this study focuses on developing a framework for the ethical use of technology, specifically examining how GenAI should be responsibly integrated into academic writing. This lens emphasises the need for clear guidelines on AI usage, the importance of developing students' understanding of the ethical implications, and the role of educators in ensuring that AI enhances rather than undermines academic integrity. The ethical use of technology draws on the concept of 'digital ethics', aiming to develop students' ethical awareness when using GenAI tools in academic work. This has been discussed in the context of digital education (Ribble, 2015), which emphasises equitable access to digital tools, and the development of critical digital literacy - the ability to evaluate and use digital tools critically.

However, frameworks for the ethical use of artificial intelligence in education (AIED) are not a priority for most ed-tech companies and schools partly due to a 'lack of awareness of relevant stakeholders regarding where AI can go wrong in the context of education' (Chaudhry & Kazim, 2022, p.162). Subsequently, there is a need to create policies and procedures that go beyond data privacy, and algorithmic bias, and include the ethics of pedagogy and the implications for student learning (Holmes, et al. 2022). Regarding ChatGPT and second language acquisition, there are concerns that it can 'thwart human learning potential' with specific examples of plagiarism, 'ghost-writing' and the validity of take-home assignments (Han, 2024). To address these challenges, the researchers sought to adapt a pedagogical framework designed to guide students in *understanding*, *accessing*, *prompting*, *corroborating*, and ethically *integrating* AI resources (Tseng & Warschauer, 2023).

Method
The study was carried out during the Fall 2023 semester on 52 B2/C1 ESL students of diverse cultural and linguistic backgrounds enrolled in an academic writing course (2 separate classes) at a private university in Cyprus. A mixed-methods design was implemented, and it incorporated (1) a pre-intervention questionnaire, (2) an intervention including several pedagogical activities incorporating ChatGPT, (3) a post-intervention questionnaire and (4) follow-up interviews.

The Intervention
The intervention spanned over one 12-week semester during which students attended 3-hour weekly classes. During that time, the student participants engaged in activities that

involved using ChatGPT 3.5 and focused on developing academic writing skills, academic integrity, critical thinking and citation practices. Classes were taught by two lecturers who collaborated at every stage of the intervention to plan, design and share activities, which were aligned with the existing course objectives, and focused on the benefits and limitations of GenAI tools in academic writing. The pedagogical activities included (1) outlining, (2) searching for sources, (3) incorporating sources, (4) writing introductions, (5) editing and revising and (6) discussing academic integrity. Using this approach, the lecturers aimed to develop students' writing abilities and equip them with a critical understanding of the role of AI in their academic and future professional lives. While the tasks focused on the possible ethical use of AI tools in academic writing, they also allowed the students to discover and observe the dangers that using AI tools carries, particularly ethical concerns such as hallucinations.

Questionnaires

The data collection included administering 2 online anonymised questionnaires that gathered data on students' experiences with and attitudes towards working with AI tools. The questionnaires were also aimed at tracking changes in student perceptions of AI tools. The pre-intervention questionnaire was administered at the beginning of the semester, while the post-intervention questionnaire was administered during the final two weeks of the semester. Both questionnaires included questions about students' knowledge of ChatGPT, experience of using ChatGPT and attitudes towards using ChatGPT. Additionally, the post-intervention interview included questions eliciting information on students' experiences linked to the intervention and the activities it comprised. Thus, the respondents were asked whether they felt confident using ChatGPT to evaluate sources and references, revise parts of a research paper, and evaluate the structure of their writing. The students were also asked about their confidence in using ChatGPT ethically.

Out of the 57 students invited to take part in the study, 43 students (16 male, 24 female, 1 non-binary and 2 of unknown gender) participated in the pre-intervention questionnaire, whereas 30 students (9 male, 19 female, 1 non-binary, 1 of unknown gender) participated in the post-intervention questionnaire (see Table 1). The response rate declined from 75% for the pre-intervention questionnaire to 53% for the post-intervention questionnaire. The mean age of the pre-intervention questionnaire participants was 19.8 years (min=17, max= 43) while the mean age of the post-intervention questionnaire participants was 18.7 years (min = 17, max = 30). The majority of students were in their first year of studies (questionnaire 1 =33, questionnaire 2 =28 students), with fewer students in the second (questionnaire 1 = 7, questionnaire 2 = 1 students) and third year (questionnaire 1 =3, questionnaire 2 =1) year of studies.

The students were enrolled in a wide range of university programmes across various disciplines, including the humanities, social sciences, business, technology, design, and the sciences, and spoke a variety of first languages including English, Greek, Russian, Arabic, French, Turkish, and Ukrainian.

Interviews

Seven students volunteered to participate in semi-structured online interviews, which were carried out after the post-intervention questionnaire, to gain an in-depth understanding of students' attitudes towards and experiences with ChatGPT. They also concentrated on issues such as the influence of the pedagogical intervention on students' understanding and use of ChatGPT and students' academic integrity. The seven participants included one male and six female students. Prior to participation, all students provided informed consent after being informed of the voluntary nature of the study and their right to withdraw at any time. Both surveys and interviews were conducted in English, with no identifying information collected to ensure anonymity. Interviews were fully transcribed, with all data anonymised. The study adhered to strict ethical guidelines to protect participants' confidentiality and privacy.

Data Analysis

Using a sequential explanatory research design (Ivankova et al., 2006), data were analysed using mixed - qualitative and quantitative - methods. The data from both questionnaires were analysed quantitatively employing descriptive statistics to compare pre- and post-intervention practices, attitudes and beliefs of the study participants. The interviews were fully transcribed and then analysed qualitatively and thematically which included the identification of recurrent themes through repetitive readings. The identification and labelling of recurring themes allowed further analysis of participant responses and answering the research questions (see Clarke & Braun, 2017). This mixed method of data analysis facilitated a more thorough examination of trends and beliefs among the participants.

Findings

This section presents the findings from the qualitative and quantitative data collected in this study. The data provide valuable insights into issues related to students' awareness of and experience with ChatGPT and its functionality, the impact of the pedagogical intervention on their understanding and use of the tool as well as the intervention's effect on students' academic integrity. Additionally, the findings offer an understanding of students' perceived needs for training and guidance from their tutors and the university. The findings are organised thematically in key areas including awareness of ChatGPT, changes in attitudes towards its use, confidence in using the tool, ethical considerations, and student expectations regarding university policies.

ChatGPT Awareness

The data show that student awareness of ChatGPT which pre-intervention was at 90.7%, rose to 96.7% post-intervention. The pre-intervention questionnaire data reveal that 48.8% of the students learned about ChatGPT from the Internet, 34.9% from friends or family, 11.6% from teachers, and 2.3% from the survey itself (see Figure 1).

Figure 1

Sources of Knowledge about ChatGPT
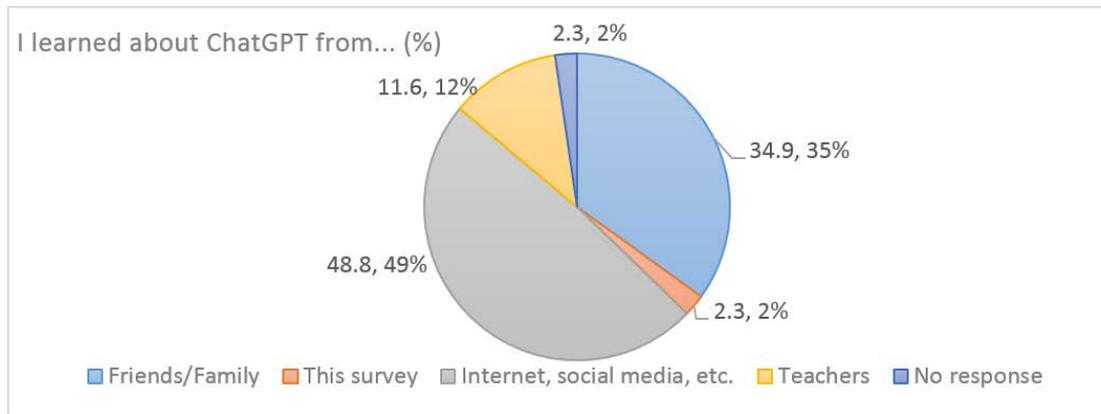
A comparison of pre- and post-intervention data show that student use of ChatGPT for academic work increased significantly from 37.2% to 76.7%. Also, a shift in the frequency of ChatGPT usage was observed with greater numbers of weekly and monthly users recorded after the intervention (see Figure 2).

Figure 2

Frequency of ChatGPT Use for Academic Work
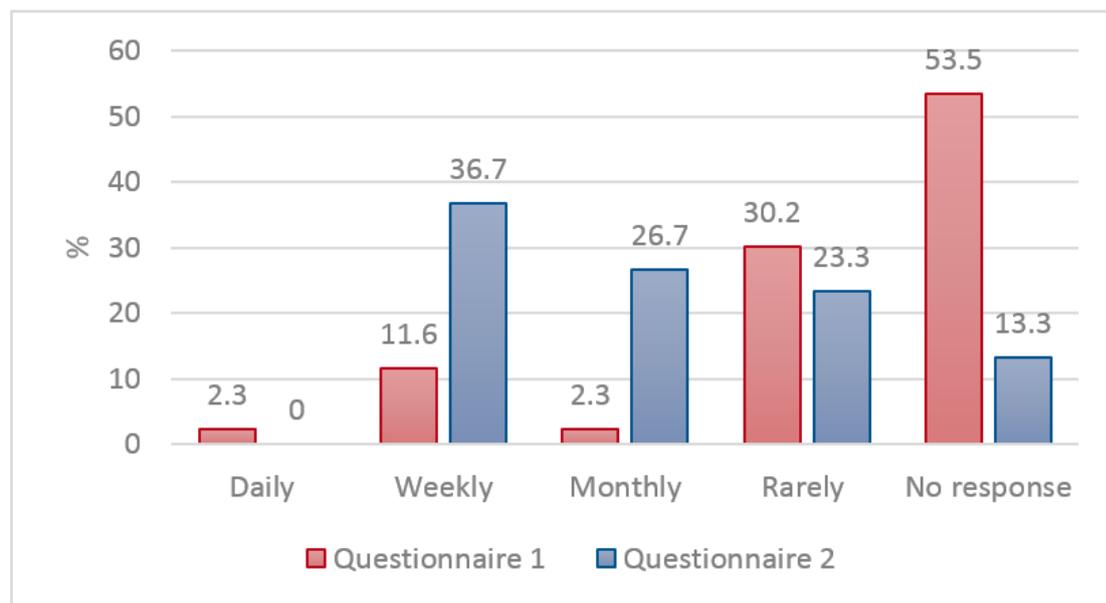
Finally, students' self-reported understanding of ChatGPT's functionality increased from 76.7% to 96.7% post-intervention. Further to that, students also declared that they used the tool for a variety of purposes including brainstorming, generating ideas for assignments, creating study material or tests based on their own student notes, organising study plans, searching for sample exam questions, helping with expressing student ideas or improving formal writing. However, the percentage of students who rated their experience with ChatGPT as 'positive' or 'very positive' decreased slightly from 65% before the intervention to 59.2% afterwards (Figure 3). Those who rated their experience of using ChatGPT as 'negative' or 'very negative' increased marginally from 13% to 14.8%. Meanwhile, the proportion of students who gave a neutral rating in the pre-intervention increased slightly from 21.7% to 25.9% in the post-intervention survey.

Figure 3

*How Students Rate their Experience of Using ChatGPT*
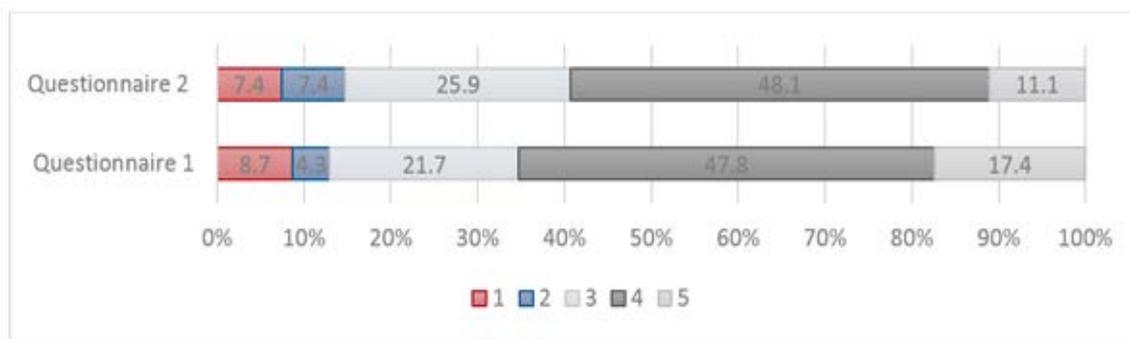
The interview data suggest that students were initially reluctant to use GenAI due to concerns about academic integrity concerns, highlighting the need for clearer guidelines on its usage. Penny stated "I believe there needs to be more rules set in place to how it's being used", while Annie said "I tried to avoid it as much as possible at first because... I felt like it was really cheating." In the interviews, the participants reported different frequency of ChatGPT use. As an example, Mariam reported on using it frequently for exam preparation, "when I started preparing for my final exams for my A-levels, I was doing A-levels, I used it quite a lot because it was better than Google in some sense. I was asking for example to give me links for specific past papers to practice". Magdalena, on the other hand, stated she tried to limit her use of the tool, "I try to use it as rarely as possible, but if, uh, if it happens for me to use it, I mostly use it to connect my words. If, for example, I don't know how to better connect my ideas, I ask ChatGPT to do that for me". Hence these responses indicate that the frequency of ChatGPT use varied among participants.

Changes in Attitudes Toward ChatGPT for Academic Tasks
Regarding students' change in attitudes, the quantitative data show slight changes in attitudes towards ChatGPT use for academic tasks after the intervention (see Figure 4). After the intervention, findings reveal a decrease in the number of students who would

use ChatGPT for searching for academic sources from 31% in the first questionnaire to 22.5% in the second questionnaire.

Figure 4

Likelihood of Students Using ChatGPT for Various Academic Purposes
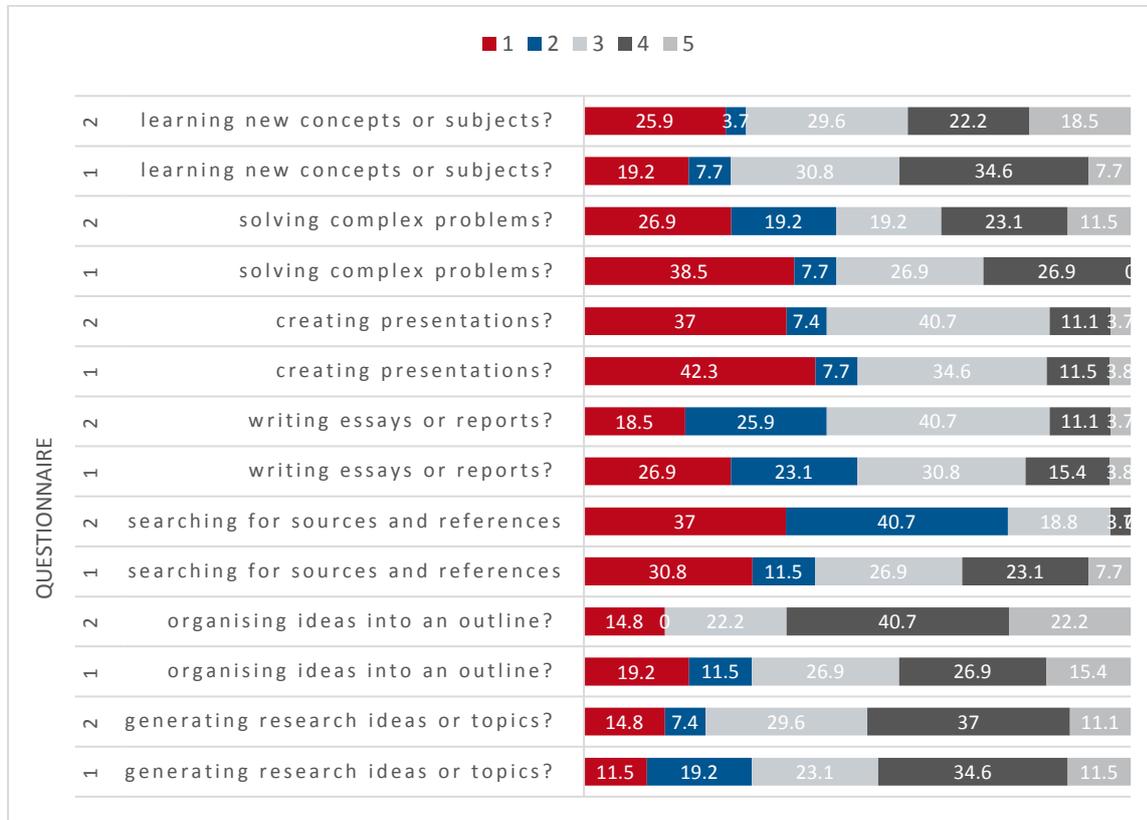
A slight decrease was also noted in the reported willingness to use ChatGPT to write essays and/or reports (from 19% to 15%), and to learn new concepts (from 42% to 40%). At the same time, there was an increase in the number of students who declared they would use ChatGPT for organising ideas from 42.3% to 62.9%. An increase was also observed in the reported willingness to use ChatGPT for solving complex problems (from 27% to 35%) and generating research ideas (from 46 to 48%). No changes were observed in the number of students declaring their readiness to create presentations with ChatGPT (15% in both questionnaires).

The qualitative data collected in the follow up interviews indicate that the intervention made the students reflect on the issues of functionality and adequacy, particularly in relation to ChatGPT's tendency to generate fabricated content, known as hallucinations. To begin with, some students admitted that initially they had thought that it was possible for ChatGPT to automatically generate a complete assignment with a single prompt, but after the intervention, they understood the advantages and disadvantages of ChatGPT and the way the tool can be used. As an example, Annie explained how she learned that in order to get help with writing a research paper outline, she needed to write very

detailed instructions for ChatGPT. She stated, "... it really needs, um, almost step-by-step instructions or I, I actually even describe, like the assignment to it, because it gives it some context (...) for the outline of the essay to kind of describe what the essay will will be like, even though you're just asking for, like, a basic outline. So, I think of it almost like a, like I'm explaining to a child". The intervention also seems to have made students aware of the hallucinations committed by ChatGPT. Emily said, "I also learned that it hallucinates, and it makes up facts and not everything can be trusted from ChatGPT, so you need to double check everything". Several students stated that they learned not to trust ChatGPT output fully. As Emily noted, "Never trust any of the sources of ChatGPT without double checking (...) if it provides information from an article, you should also double check to see if it's true or not". The data from these follow-up interviews suggest that the intervention prompted participants to reflect on the functionality and limitations of ChatGPT and its tendency to generate inaccurate content and the importance of careful and detailed input and review and verification of output.

In the interviews, students also mentioned the benefits of ChatGPT they learnt about during the intervention. As an example, Vincent commented on the tool's suitability to help with brainstorming and improving language, "It generates ideas, it gives you more complex vocabulary... I believe it just generates ideas and complex vocabulary which is useful nowadays in academic writing". Magdalena praised the tool for being good at editing work, "It can help a lot make the process faster and easier... give you ideas on how to fix what you wrote on how to like make it look better more formal." Thus, the data show that while the participants learned about the dangers of working with ChatGPT, they also reported learning about its useful and ethical applications.

Confidence in Using ChatGPT
The analysis of pre-and post-intervention questionnaires indicates a notable increase in students' confidence in using ChatGPT for their academic work with scores increasing from 20.6% pre-intervention to 28.6% after the intervention (Figure 5).

Figure 5
Students' Self-Reported Levels of Confidence Levels Using ChatGPT to Generate Academic Content
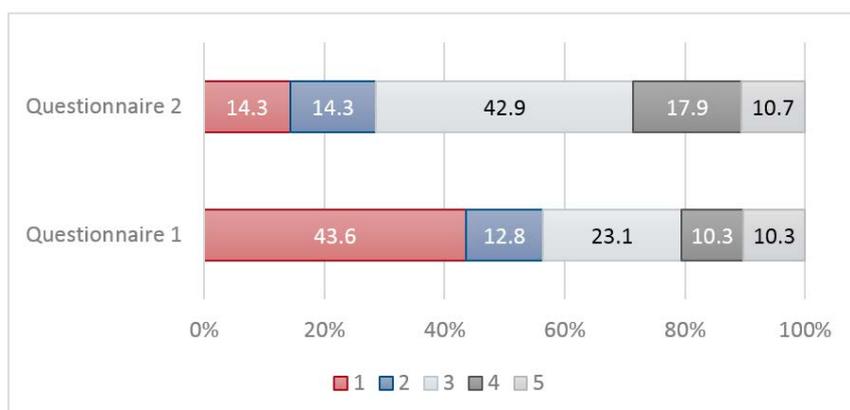
At the same time, the percentage of students who expressed a lack of confidence using ChatGPT dropped significantly from 56.5% to 28.6%. Furthermore, the number of students who reported a neutral stance (score of 3 on a 5-point Likert scale) increased considerably from 23.1% to 42.9%. The decrease in negative responses indicates a shift in student perception towards a more positive or at least neutral stance on the usefulness of ChatGPT in their academic work. The notable rise in neutral attitudes and the increase in moderate confidence suggest that students may be more critically evaluating the use of ChatGPT, balancing optimism with a realistic appraisal of ChatGPT's capabilities and limitations. The capacity to critically evaluate ChatGPT use was also observed in some interviews. For example, Penny highlighted, "Because this is all very new, AI is still in its infancy. You do need to be very careful, you need to be very selective". Similarly, asked about advice she would give to other students, Vincent pointed out that students should use ChatGPT cautiously, "Use it. It's very nice. If you use it correctly and ethically, it will help you".

Ethical Considerations and Academic Integrity
The quantitative data analysis revealed that post-intervention, there was a decrease in the view that using ChatGPT is a form of plagiarism, with combined high agreement scores dropping from 37.5% to 28.6.1% (Figure 6).

Figure 6
Students' Beliefs on the Ethical Use of ChatGPT Before and After the Intervention
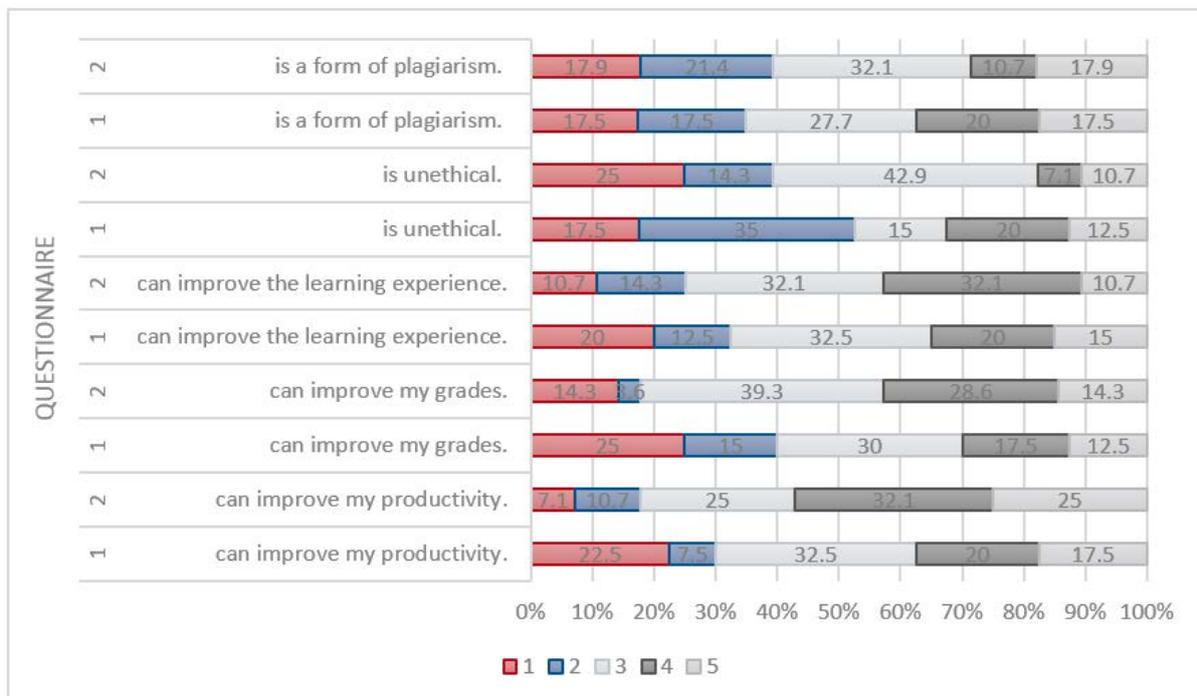
Similarly, post-intervention, fewer students viewed using ChatGPT as unethical, with high agreement scores reducing from 32.5% to 17.8%. Additionally, there was an increase in the number of students who agreed that ChatGPT can improve the learning experience

from 35% to 42.85%. The belief that ChatGPT can improve grades also increased from 30% to 42.95%. There was a significant increase in the agreement that ChatGPT can improve productivity from 37.5% to 57.1%. Overall, the intervention appears to have reduced the number of students who strongly agree that using ChatGPT constitutes plagiarism or is unethical. However, it also seems to have increased the extent to which students agree that ChatGPT can positively impact their learning experience, grades, and productivity.

The interview data gave some insights into how the students view the ethics of using ChatGPT and how students use the tool ethically not involving the 'generate, copy and paste' practice. Students' opinions on the ethicality of ChatGPT use varied a lot.

Some students (Annie, Mary, Mariam) were initially unsure whether using ChatGPT was ethical or not, and hence they avoided using it after it was released. Annie said, "I felt like it [ChatGPT use] was really cheating for an academic." Some of those who initially hesitated felt that the intervention helped them understand what was ethical and what was not. For example, Mary highlighted that she appreciated being taught "the ethics that I should…the morals that I should have while using ChatGPT".

In addition to concerns about use, some students questioned the ethics of how AI tools are developed. Mariam, for example, expressed concern about the sources used to train AI: "There are a lot of concerns about copyright, with me in particular, because I do plan to publish, for example. But since I do discuss my work with it, sometimes I am afraid that it's going to extract my knowledge and use it in our conversations."

Some students felt that whether using ChatGPT is ethical depends on how it is used. For instance, Vincent did not support using AI for writing assignments and said, "Usually for writing assignments I don't use it that much because it's not fair I believe", but he supported using the tool for generating ideas "It generates ideas, it gives you more complex vocabulary".

Finally, some felt that ChatGPT use was unethical because it created an unfair advantage for users over those who complete their work independently (Magdalena and Penny). Penny also viewed it as a form of plagiarism)and expressed concern that and the GenAI systems are said to have been trained on the work of authors who did not give their consent for their work to be used in such a way. Despite these concerns, even these students were open to using AI tools for proofreading.

The question of whether using ChatGPT constitutes plagiarism was a recurring theme. Annie expressed uncertainty, stating, "it did kind of concern me that it's taking from … from the whole Internet, (…) if you use it directly, it will score highly on plagiarism

checkers or maybe not, but I don't know, just the mechanism of of taking from random sources that I'm not sure, about that ... consent".

In contrast, Emily reflected positively on the intervention's role in clarifying appropriate use: "what I learned from English is how to use it in a way that's not plagiarism and to be aware that copying exactly from ChatGPT might...[be]". The intervention, therefore, appeared to help her to distinguish between unethical use of ChatGPT and legitimate support by demonstrating ways of using the tool that do not amount to plagiarism.

Aside from expressing their views and doubts on the matter of the ethical use of ChatGPT, the students also expressed several creative ways in which utilising ChatGPT could help improve learning, as opposed to simply generating complete assignments. These included using it for proofreading (Mary, Mariam, Penny), generating ideas (Mariam, Vincent) and helping with language expression such as making the language of an existing assignment more formal (Magdalena). ChatGPT was reported to be a good study companion in exam preparation. Mary described having used it during exam revisions when she uploaded her lecture notes to ChatGPT to create flashcards and sample test questions. Mariam successfully used the model to find links to A-levels' past papers with questions on a specific subject. Mary, who has ADHD, used ChatGPT to generate simplified versions of texts she had to study and checked the coherence of the texts she wrote. It was also used as a personal tutor for language learning by Annie, and solving problems in physics homework by Magdalena). Vincent managed to get help from another AI tool, BLACKBOX AI, in generating codes for his studies in programming. These examples illustrate how students find ways to use AI tools to improve their learning without resorting to a simple 'generate, copy and paste' process.

However, even though ChatGPT was described to be helpful in so many ways, it was also sometimes reported to be disappointing in its performance. As Emily said, "Sometimes it doesn't generate what I was expecting it to, and it just gives me random answers." Mariam criticised ChatGPT for giving too generic answers to academic questions and incorrect data, while Penny and Emily pointed out its tendency for hallucinations. Emily said, "I also learned that it hallucinates, and it makes up facts and not everything can be trusted from ChatGPT, so you need to double check everything", while Mariam added that Chat GPT is "not useful for data because it corrupts it".

While the interviewees focused more on the usefulness of ChatGPT, they did not directly focus on its role in improving grades. As regards suggestions on how one might improve their productivity with ChatGPT, Magdalena suggested using it for finding sources, while Mary stated that it helped manage her time, which tends to be difficult for her due to ADHD. She used the tool for writing her schedule at home and organising her meals so she could focus on her studies more. Emily warned against thinking that one might save time by preparing whole assignments by ChatGPT: "in the long run that's not really

helpful because then you don't really know what you did or... then it just piles up and you don't really know what you're actually doing for the course."

University Policies and Student Expectations
Survey findings indicate a substantial increase in student awareness of the university policy from 18.6% pre-intervention to 43.3% post-intervention (see Figure 7). Uncertainty about the policy decreased from 67.4% to 43.3% indicating better awareness or communication of policies post-intervention.

The percentage of students who believed that their university did not have a policy remained relatively stable, with a slight increase from 7% to 7.7%. These statistics suggest that the intervention may have helped in raising student awareness and clarity regarding university policies. However, a significant portion of the student body still remains uncertain about the policy, pointing to a need for universities to communicate their policies more effectively.

Figure 7
Students' Awareness of University Policy on AI Use
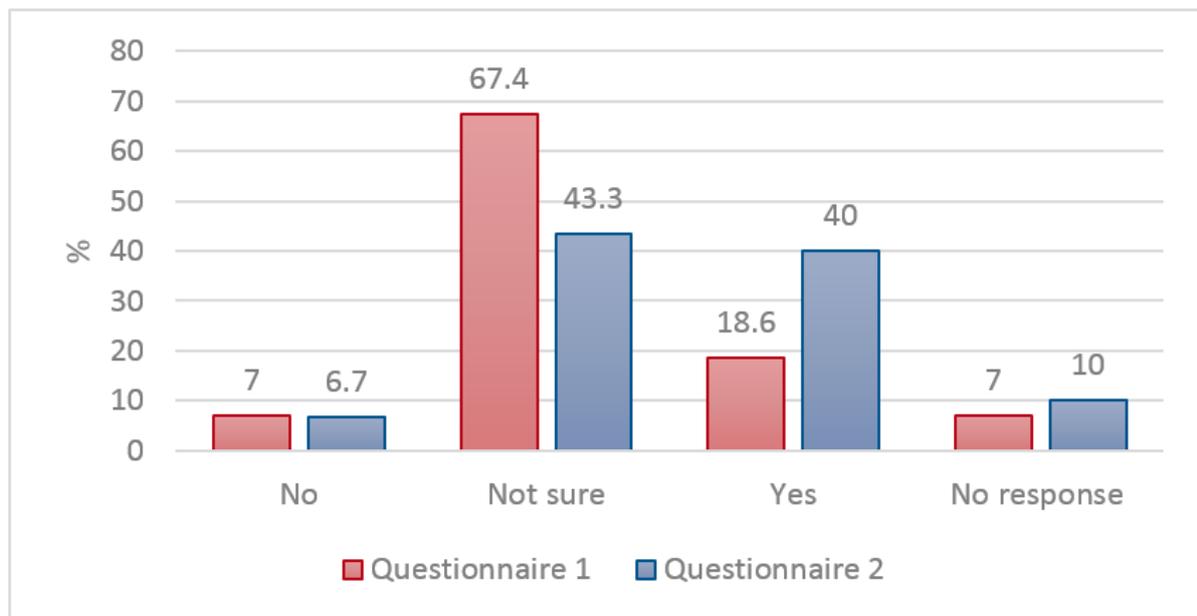
The interview data indicate that students feel there should be university policies and teacher guidance regarding the ethical use of AI tools. As an example, Mary believes students should receive information similar to that presented during the intervention. Emily also stated "... I think what the university has about detecting ChatGPT is a good way of keeping things as authentic as possible so students can't just copy an essay from ChatGPT. And I think it's good that we can be (...) educated on these matters...we were really educated about the ethical use of ChatGPT, so that was really helpful." However, some of the interviewees highlighted that despite being taught about the ethical use of AI, some will still use it in unethical ways. As mentioned by Mary and Magdalena, many of

their older peers use ChatGPT for generating their assignments. Mary said, "to be honest, most of my, um, most of the people I know, my friends use it for, you know, writing the assignments". In fact, Magdalena suggested the university should be stricter with limiting unethical AI use saying, "I know personally people who can, who get away with it really easy, who don't hide that they use it, who like very openly use it and they get away with it. So, uh, I think if the university was even more strict with, uh, ChatGPT and other AI tools".

Discussion

The results of current research explores some of the issues raised by Chapelle (2024), including the necessity for critical re-evaluation of pedagogical strategies and student training to develop their understanding of technological capabilities and ethical considerations of AI technologies. These views also align with the broader literature which emphasises the importance of adapting pedagogical strategies to accommodate AI's growing role in education (Zhao, 2021)

As previously discussed in the literature review, Chapelle (2024) recognises the potential of GenAI technologies in language learning including its ability to write extended pieces of text, which poses a threat to ethical integrity. This concern is echoed by Perkins (2023) and Sullivan et al., (2023), who discuss the risks of academic integrity violations and the need for new frameworks to address these challenges. Chapelle (2024) also recognises its capacity to support students in their quest to express their ideas and creativity. She draws attention to AI tools' functionalities such as "translation, text to speech synthesis, synchronous interaction, composition of text, and multimodal forms of cultural expression" (Chapelle, 2024, p. 536). These capabilities are consistent with the use of AI tools highlighted by Li (2022) who discusses how AI enhances language learning through real-time-corrections and personalised feedback. Further, Chappelle (2024) adds the tools 'can empower learners with language for expressing their own meaning and creativity' (p. 356) and suggests "students need guidance to learn effective strategies for using technology for language learning despite their ascribed identities as digital natives" (p. 535). This echoes the broader literature which calls for the integration of critical digital literacy and ethical guidance when integrating AI into education (Chaudhry & Kazim, 2022; Ribble, 2015).

Indeed, the data from interview discussions show that some of the students have already started using ChatGPT to empower their learning. They used ChatGPT to help with expressing their ideas correctly, adjusting their writing to the required style (e.g. formal) and simplifying challenging texts to understand them better. Chat GPT was reported to be useful in learning a foreign language as a conversation partner and a translator and in finding online sources of information. Such data provide further evidence to the claim (Chappelle 2024) that the use of AI has the potential to improve engagement. This is also consistent with the findings of Wei et al. (2021), who demonstrated how AI tools

increased student engagement during emergency remote teaching by providing targeted language practice and support.

The data from both questionnaires and the interview imply that the tested intervention had an impact on enhancing the methods and awareness of GenAI use by students. Several interviewees stated that they became more confident about what is ethical after the intervention. Interestingly, the quantitative data indicate only a small rise of 8% in students declaring their confidence using ChatGPT. At the same time, a 19.8% rise was noted in those staying neutral on whether they feel confident using the tool or not. Such hesitation might indicate an increase in critical evaluation of the performance of ChatGPT and a more cautious, responsible way of using it. This point addresses concerns raised in the literature (Kostka & Toncelli, 2023: Sullivan et al., 2023) that over-reliance on AI could hinder critical thinking, suggesting that more reflective use could help mitigate these issues. It is suggested that this is further supported by the increase of 20% of respondents claiming they understand the functionality of ChatGPT. Such increased understanding of functionality is in line with the goals of AI literacy highlighted by Holmes et al. (2022) and Tseng & Warschauer (2023), who advocate for incorporating AI literacy into the curriculum to foster responsible and informed use of AI.

The change in awareness of functionality is also visible in the drop of respondents ready to use ChatGPT for academic searches (8.5%), write academic essays (4%) and learn new concepts (2%). While some of these changes seem marginal, they might be a result of the respondents' exposure to ChatGPT hallucinations during the intervention. Barrot (2023) and Han (2024) also note that AI-generated content can be inaccurate or unclear, leading to reduced confidence in using AI for certain academic tasks. At the same time, positive experiences with other uses of the tool during the intervention might be behind the increase in those willing to use Chat GPT for organising ideas (20.6% increase), solving complex problems (8%) or generating ideas (2%). This aligns with Bruner's (1978) concept of scaffolding, which suggests that GenAI can enhance problem-solving and creativity when used as a support tool. These examples of changes further support the claim that students should critically engage with AI technologies and identify their advantages and limitations. Therefore, teacher guidance in the creative use of AI tools could lead to student empowerment, enhancement of critical thinking skills and autonomous learning. This recommendation echoes calls from Chapelle (2024) and Cotton et al., (2024) for more structured guidance on the ethical and creative use of AI in education.

Such guidance should also focus on ethical considerations, and the results of the current study indicate that, firstly, instruction regarding ethical uses of AI tools is likely to change students' perceptions of and attitudes towards different ways of using such tools, and secondly, it is likely to increase students' ability to tell between ethical and unethical uses of AIs. This finding aligns with the literature from Han (2024) and Perkins (2023), who

emphasise the importance of embedding ethical frameworks into AI education to help students navigate these challenges. Indeed, the qualitative data indicate that students themselves reflected on the ethics of ChatGPT use even before the intervention and they expressed their need for training/instructions in this area. Finally, the study participants themselves communicated the need for training and guidance in the ethical use of AI tools, which showed their recognition of the problem. This mirrors calls in the literature (Sullivan et al., 2023; Holmes et al., 2022) for more comprehensive training to ensure that students are prepared to engage with AI technologies responsibly and ethically.

Conclusion

This study provides significant insights into the impact of GenAI tools, like ChatGPT, on second language students' writing skills and academic integrity. Findings suggest that these tools can serve as valuable resources by offering students innovative ways to improve their academic work. However, the study also emphasises the importance of responsible and ethical GenAI use, particularly in preventing issues like over-reliance and plagiarism. Findings indicate that the students who participated in the intervention study demonstrated a greater awareness of the ethical dimensions of GenAI use by the end of the study than they did at the beginning.

One of the key findings of the study was that students became more reflective and cautious in their interactions with ChatGPT. Rather than relying solely on ChatGPT, they reported a more considered and critical approach that considered the potential risks associated with misuse. This shift in perspective highlights the importance of providing targeted interventions and continued guidance on the ethical use of GenAI. Moreover, the role of teachers emerged as crucial in promoting deeper critical thinking regarding the ethical use of AI tools.

Additionally, students expressed a gap in their understanding of how to ethically and effectively integrate GenAI into their academic work. This points to the need for critical digital literacy, and specifically AI literacy, to be explicitly included in the curriculum in order that students are equipped with the skills and knowledge. Without urgent training in AI literacy, there is a serious risk of students underestimating the ethical implications of using such tools which could potentially undermine their academic integrity.

The study also highlights the need for clearer and more explicit policies at the institutional level regarding the use of GenAI in education. Policies are needed to provide students and educators with a clearer framework within which to use AI and ensure that it supports rather than replaces human instruction and interaction.

However, this study was not without limitations. Firstly, the research was conducted with a limited sample size based on two university writing classes, which restricts the generalizability of the findings. Additionally, the short-term nature of the one semester

intervention means that the long-term effects of GenAI tools are not included in the study. Moreover, the study relies on students' self-reported data, which, while valuable, can be subject to acquiescence bias in which students are more likely to provide lecturers with agreeable answers regardless of their actual beliefs or behaviours (Costello & Roodenburg, 2015).

Furthermore, the focus on one specific GenAI tool, ChatGPT, also limits the scope of the findings. The study does not reveal how students may use numerous other GenAI tools e.g. Gemini, Grammarly, QuillBot, Claude, or how these other tools may be influenced by their understanding of academic integrity. Despite these limitations, the study provides valuable insights into how such intervention studies can be used in alignment with existing course objectives to develop students' writing skills, as well as their understanding of academic integrity. The findings also emphasise the need for clearer institutional policies that clearly define acceptable and unacceptable uses of GenAI tools within academic work. In parallel, the study highlights the need for targeted training frameworks for educators, including professional development on the pedagogical affordances and limitations of GenAI tools, strategies for integrating AI literacy into curriculum design and support for facilitating student discussions around ethics and authorship. Building on these findings, it is hoped that future work will involve collaboration with institutional stakeholders to contribute to the development and implementation of such policy and training initiatives. The aim is to develop institutional responses to GenAI that are pedagogically informed, ethically grounded, and responsive to evolving student practices.

This study draws heavily on Chapelle's (2024) influential commentary, '*Open GenAI Changes a Lot, but Not Everything*', which inspired the focus for this research. Her perspective highlights the importance of maintaining core educational principles while guiding students to engage critically with AI technologies. In line with her argument, this study supports the view that while GenAI tools like ChatGPT can enhance student learning, particularly in second language writing, it is vital that their use is balanced with ethical considerations, academic integrity, and active teacher involvement.

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World Medical Association (WMA) Declaration of Helsinki–Ethical Principles for Medical Research Involving Human Participants
The study complied with ethical standards for educational research, informed consent was obtained from all participants, and all data were fully anonymised.

Competing Interests
The authors declare no conflicts of interest.

Data Availability
The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

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