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Exploring Students' Perceptions of the Use of Artificial Intelligence in EFL Education

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ABSTRACT

Artificial Intelligence (AI) is playing a significant role in shaping every field of our society and the field of education is no exception. Its integration in education has transformed the learning processes due to its potential to enhance personalized learning and improve learning outcomes. However, while learners benefit greatly from AI in their academic learning, they also face new challenges. The present study aims to examine university students' perceptions regarding the use of AI in education in an English as a Foreign Language (EFL) context and to highlight the factors that affect their perceptions when using AI as an academic support. This research employed a qualitative approach and the data were collected through semi-structured interviews with 10 students at the University of Djelfa. The findings of the study revealed that students view AI positively while adopting varied but generally conscious approaches to the use of AI tools.

Introduction

Over the past few years, Artificial Intelligence (AI) has witnessed significant advancements in different fields, influencing and changing many aspects of human life. In the field of education, AI has emerged as a tool with the potential to revolutionize teaching and learning processes as it has become increasingly more available, easily accessible, and widely used in learning.

One of AI most significant contributions is its ability to create innovative teaching and learning opportunities. AI-powered tools can improve language learning outcomes by analysing students' performance in real-time, and providing feedback that closely mirrors human evaluations (Barett et al, 2023), enabling each student to progress at their own pace while receiving the support they need. Tools such as ChatGPT and Grammarly can also assist students in facilitating learning, explaining complex topics, and improving their language skills and overall proficiency through instant suggestions and editing (Roll & Wylie, 2016). Moreover, AI-generated tools can offer personalized learning by adapting educational content to the students' learning styles, and preferences. This allows learning to be tailored to the students' individual needs and goals and enhance their overall learning experiences. As highlighted by many studies including Johnson and Smith (2019); Baker (2021), personalized AI learning - by identifying learning gaps and tailoring interventions according to the students' needs- can help students not only demonstrate higher self-efficacy but also develop more positive attitudes toward their learning.

However, the incorporation of AI in education has also raised concerns about potential overreliance on these tools, increased student anxiety, and threats to academic integrity. It has become increasingly common for university students to be heavily reliant on AI-generated tools, often placing total trust in these technologies and, as a result, risking the neglect of essential skills such as critical thinking, problem-solving and engagement in deep learning. This excessive dependence limits the students' learning opportunities and creates a passive learning environment; where they "simply seek quick answers rather than engage in active discovery, analysis, and reflection" (Grájeda et al, 2023). The rapid expansion of artificial intelligence in education has also brought new concerns about academic dishonesty to the forefront. Many researchers have highlighted that the unregulated use of AI tools has increased opportunities for cheating and plagiarism, making it easier for students to generate entire essays by simply inputting key points into a text box while the AI produces the content for them. This growing reliance on AI has also been associated with increased anxiety and stress among students due to the continuous pressure to achieve academic goals.

While a considerable body of literature exists on the topic of the incorporation of AI in education regarding its benefits and challenges, there remains relatively limited research on how AI-generated tools influence students' perceptions and learning experiences, especially in EFL educational contexts. Understanding students' views on the use of AI in education is essential as it can inform which teaching practices should be implemented, and what changes may be made in order to reduce the opportunities for plagiarism and cheating. Within this perspective, the present study aims to examine university students' perceptions of AI use in education and to identify the factors that influence these perceptions, thereby addressing an important gap in our understanding of the implications of AI technologies. To achieve this aim, the study seeks to answer the following two research questions:

- **What are the perceptions of university students regarding the integration of AI in education?**
- **What factors influence these perceptions?**

Review of Literature

Benefits of Integrating AI in Education

The rapid proliferation of [Artificial Intelligence](#) (AI) technologies has transformed many aspects of modern life. In higher education, AI is increasingly recognized for its potential to influence students' academic development and provide rich and diverse learning opportunities. The significance of this transformation can be understood if we consider traditional education. The latter has focused on ensuring efficiency in knowledge transmission by providing systematic input of vocabulary, grammar, writing, and reading and on developing learners' communicative competence and critical thinking skills through strategies and techniques such as questioning, exploration, analysis and collaborative activities. Within this perspective, teachers often use real-world tasks and materials to mobilize their students' motivation and initiative, encourage meaningful spontaneous language use, and address their individual learning needs, cultural contexts, and varying proficiency levels. Nevertheless, the rapid information processing and insightful responses provided by AI technologies has introduced new possibilities for language learning, as they create interactive and adaptive learning environments that offer tailored guidance, support, and feedback based on individual learning patterns and knowledge levels (Hwang et al., 2020). Therefore, the integration of AI in higher education presents undeniable advantages, particularly in terms of time efficiency, personalized learning, language skills development and learner autonomy.

The growing use of AI has generated both excitement and enthusiasm among students, largely because of the speed with which these tools deliver information and provide immediate assistance. AI significantly enhances time efficiency in education by accelerating access to information, feedback, and learning support. In fact, AI-generated tools allow students to handle routine tasks and activities that are usually time consuming, offering them summaries of texts, books, research articles, and lecture notes within minutes. This makes students grasp necessary concepts and avoid spending hours in searching for resources, reading, writing, waiting for responses, and organizing materials. Additionally, these tools can also provide immediate feedback on students' work enabling for more rapid improvement and more effective iterative learning, allowing students to identify and correct mistakes, analyse quizzes, assignments, and practice exercises with clear and simple explanations on why they occurred. They also assist students in adjusting their learning strategies, reviewing specific concepts, and improving their performance without unnecessary delays. Moreover, immediate access to knowledge and resources through AI tools strongly supports learners' progress and learning outcomes, engagement and satisfaction, as they can usually find explanations to their inquiries without spending hours in browsing through multiple sources. Through receiving timely support via these AI-powered tools, students are more likely to improve their language proficiency, and stay focused, motivated and actively engaged in the learning process.

The integration of artificial intelligence (AI) into education is increasingly recognized as essential for improving teaching and learning methods. One of AI's most significant contributions is its ability to personalize education by adapting to students' individual needs, learning styles, skills, and interests. AI-powered tools such as ChatGPT, Grammarly, DeepL, and others offer significant opportunities in higher education by tailoring content and providing virtual tutoring to support student learning (Díaz Vera, 2024). These tools can generate exercises tailored to each learner's proficiency level and specific needs, fostering a differentiated pedagogical approach (Gonzalez & Chiappe, 2024). By presenting the content in preferred format and offering multiple resources and individual feedback and guidance, these AI-powered tools can enhance student engagement and learning outcomes. They can, for example, present materials in various formats and using different techniques, allowing students to access information in ways that align with their learning preferences and to explore concepts from different angles. AI systems can adapt materials into various formats—such as videos, interactive simulations, visual diagrams, audio explanations, or simplified text, enabling students access information in ways that align with their learning preferences. They can also provide supplementary resources, including practice exercises, real-world examples, or step-by-step explanations, allowing students to explore concepts from different angles. Additionally, AI systems continuously examine learner data to develop detailed learner profiles that help adapt learning materials, pacing and difficulty levels,

ensuring instruction aligns with each student's abilities and learning styles (visual, auditory, or interactive). Furthermore, these systems can recommend individualized learning pathways (Kohnke, 2023), by analysing patterns of learner behaviours, performance, and engagement to detect strong and weak areas and propose specific learning paths that improve outcomes. In this way, AI provides "a personalized flow of learning activities and materials that corresponds with the objectives of each learner" (Biswas & Molla, 2024, p.33).

Artificial intelligence (AI), through its personalized platforms, can be highly effective in improving students' language skills and sub-skills. AI-powered language assistants such as ChatGPT, Google Gemini, Grammarly, and other platforms can support language learning by providing immersive learning environments, and opportunities for independent practice. These tools, which offer high-quality language instruction tailored to the learners' own pace, enhance not only students' specific language skills but also their overall language proficiency, making language learning more interactive, engaging, and learner-centred. For example, AI-powered tools such as ELSA Speak provide immediate pronunciation and listening support by comparing learners' speech to native-speaker models and offering corrective feedback to develop pronunciation accuracy. These tools help identify common errors, and provide personalized patterns through visual and auditory feedback, enabling learners to refine their accent and intonation and, thus, improve their speaking competence (Font de la Vall & Araya, 2023). Additionally, AI-assisted language learning tools can significantly develop learners' grammar and writing skills by providing immediate feedback, corrective comments, and alternative sentence suggestions. By analysing written texts, detecting errors, and delivering instant responses tailored to learners' needs, AI-powered tools help students refine their grammatical competence, strengthen academic writing and increase engagement. These tools support not only grammar, mechanics, and readability, but also idea generation, content development, paraphrasing, and argument enhancement ([Barrett & Pack, 2023](#))

Challenges of Integrating AI in Education

A substantial body of studies has demonstrated the importance of AI in enhancing language learning and teaching (e.g., Salvagno et al., 2023). However, integrating AI into learning and teaching practices presents many significant challenges for students, among them: academic integrity, negative impacts, and demotivation towards language learning.

The overwhelming availability of AI-generated content, and the students' overreliance on AI have caused significant risks to academic integrity, as students may plagiarize, submit unoriginal work, and engage in dishonest practices. In fact, there is a

growing tendency among students to misuse AI-powered tools such as ChatGPT in unauthorized ways, including generating entire papers without proper attribution, thereby obscuring the boundaries between legitimate assistance and academic misconduct (Braun & Clarke, 2016). These concerns are exacerbated by the absence of clear institutional policies and effective oversight to regulate the ethical use of AI in education. Without structured guidelines, students receive limited direction and thereby overlook ethical issues. Moreover, excessive reliance on AI in learning and inadequately monitored assessment practices may undermine trust, fairness, and student autonomy. As such practices become more widespread, they risk normalizing academic dishonesty (Kohnke et al., 2023). When educators fail to critically evaluate AI-generated submissions and assess them as entirely student-produced work, issues of equity arise, particularly for students who complete their assignments independently. Finally, insufficient regulation and critical awareness leave students vulnerable to the unmoderated use of AI, exposing them to misinformation, fabricated references, inappropriate material, and potentially harmful content.

In addition to the threat to academic integrity, the students' dependence on AI-generated tools to assist them in their writing and speaking tasks has influenced their learning behaviours and attitudes. They often prioritize task completion over the learning process due to pressure to achieve high grades for admission into higher-level programs (Kohnke et al., 2023). A growing number of studies stated that the students' excessive dependence on AI-powered tools such as ChatGPT, Perplexity, Claude, and similar platforms to compose entire essays on assigned topics may trigger anxiety manifested in feelings of inadequacy, lack of confidence, fear of being caught, and concern over developing their own academic skills. This anxiety may be explained by the fact that students have consistently been under academic pressure to succeed, which leads them not only to the unethical use of AI tools but also to heightened anxiety when using them. In fact, students' anxiety may stem from three main sources. The first source lies within the students themselves, who may be unable to resist the ill-considered use of AI tools due to factors such as lack of motivation, laziness, and insufficient confidence in their own abilities. The second source is the teacher, who may not have adequately trained students to rely on themselves or designed activities that emphasize critical thinking and problem-solving skills. The third source is the university, which may not have provided clear policies and guidelines regarding whether and how AI should be used for language learning. It is within this perspective that many researchers have warned about the risks that AI-powered tools pose to student learning (Black & Tomlinson, 2025).

Moreover, many researchers have raised concerns about the possible negative effects of AI technologies on students' mindsets, particularly in light of the increasing use of AI tools and the ease with which students obtain knowledge online. This growing

reliance on AI tools, according to these researchers, causes students to depend excessively on responses generated by AI-powered systems, leading them to underestimate their own abilities and, at times, discouraging them from taking the initiative to complete their homework and tasks independently. In addition, students' overreliance on AI tools may lead them to delegate tasks such as information searching, paraphrasing, summarizing, brainstorming ideas, and generating sentences and texts entirely to these systems. As a consequence, these practices may undermine these potentialities as they "may impair memory retention, reinforce societal biases, and reduce human interaction" (Bai et al., 2023). In the same vein, Cambra-Fierro et al. (2024) suggest that the students' over-reliance on AI to do their speaking and writing tasks may reduce face-to-face social interactions, negatively impacting interpersonal skills, becoming more isolated and less adept at real-world social interactions and teamwork, which are critical to their overall social well-being and development. Additionally, the ease with which students obtain information and access AI-generated solutions may diminish their motivation and enthusiasm for independent thinking and research. Dwivedi et al. (2023) warn that students may fall into "superficial learning" if they constantly use AI to facilitate the reading and comprehension process. This may also negatively affect students' language skills and restrict the development of their higher-order thinking skills, problem-solving abilities, and critical thinking capacities. Put differently, total dependence on AI tools, which provide easy and rapid access to knowledge, may lead students to prioritize speed over depth of comprehension and superficial thinking over critical analysis (Lucking et al., 2016; Selwyn, (2022).

Methodology

This research used a qualitative approach to explore Master students' perceptions and experiences regarding the use of Artificial Intelligence (AI) in English as a Foreign Language (EFL) context. This approach was chosen because it enables an in-depth exploration of participants' perceptions, feelings and experiences related to complex and emerging educational phenomena. Data were collected through semi-structured interviews. This research tool was selected because it provides the possibility of exploring topics in "a depth and breadth that may be harder to achieve with fully structured interviews" (Lazar et al., 2010). Each interview lasted approximately 15 minutes, was conducted individually, and was audio-recorded with the participants' consent. The interview guide consisted of eight open-ended questions, structured around three main themes - general perceptions, psychological impact and students' evaluation- and was slightly adapted from Lee & Ravana (2024). Additionally, given that the interviews were semi-structured, probing questions were asked based on the participants' initial responses to the primary questions. The data collected were analysed using thematic analysis following the framework proposed by Braun and Clarke (2006) which involves familiarizing with the data, systematically coding key statements,

searching for themes, reviewing them, defining and naming them, and producing a report.

Participants

This study involved a group of 10 Master's students majoring in English in the Department of English at the University of Djelfa. Both genders were included in the sample, and the participants' ages ranged between 19 and 24, representing a relatively young cohort. All students had studied English as a Foreign Language for an average of 13 years and demonstrated an upper-intermediate level of proficiency, as evidenced by their final exam scores from the previous academic year. Convenience sampling was used to recruit participants based on their accessibility and willingness to participate in the study. According to Saunders et al. (2023), convenience sampling refers to the selection of a sample of participants from a population based on accessibility or ease of contact rather than through structured or probabilistic procedures. Given their academic background and future aspirations as EFL teachers, the students were expected to provide valuable insights into the use of AI in language instruction.

Results

As mentioned before, the present article explores Third-Year and Master's students' perceptions and feelings towards the use of AI in educational contexts. To reach this aim, a qualitative approach was adopted, using semi-structured interviews, with probing questions used when necessary to explore the students' perceptions in more depth. To preserve the anonymity of the participants for ethical purposes, the graduate students from the third-year level were identified as S1, S2, S3, S4, and S5, and the postgraduate students at the Master's level were identified as M1, M2, M3, M4, and M5. The results were presented and organized around three main themes: (1) general perceptions, (2) psychological impact, and (3) students' evaluation. Some selected responses are presented using the actual words of the students to illustrate their perceptions or to highlight specific responses.

I. General perceptions

1. Have you used AI tools (such as ChatGPT or similar tools) for academic purposes? If yes, how often and which tools do you usually use?
2. How would you describe your overall perception of AI tools in academic learning?
3. For what specific academic tasks do you usually use AI tools?

The first three questions (Qs 1-3) were designed to explore the students' familiarity with AI tools, their overall perceptions of these tools and the academic tasks for which they are used.

Frequency and Types of AI use :

Both graduate and postgraduate students agree on the importance of AI tools. They viewed the use of AI positively, stating that AI tools have the advantage of presenting learning according to their needs and interests. They also indicated that these tools provide them with immediate feedback and improve their mastery of language skills. In addition, both levels stated that they use a variety of AI tools. ChatGPT was their favourite, as it is usually available and provides a number of practice activities for different skills. Other tools such as Grammarly, Notebook LM, and Gemini were also used. Postgraduate students, in particular, showed a preference to AI writing assistance tools such as Writefull and Microsoft, which they use mainly for editing and proofreading purposes. Many students revealed that they have become accustomed to using AI tools in their work and have gradually become "attached" to AI which, according to them, has become an essential part of their academic learning.

Perceptions of AI in Academic Learning :

S4 and M4 stated that they use AI tools because they save time and help them avoid time-consuming and unnecessary work. S5 stated that she uses AI-powered tools a lot in her studies to help her in correct her mistakes in grammar and punctuation. Two students (S3 and M2) emphasized AI's effectiveness in generating ideas and expanding them using appropriate resources and examples as well as retrieving information, and developing arguments. At the same time, some responses indicate a growing reliance on AI. M3, for example, highlighted the widespread of AI tools among students inside as well as outside the classroom, stating:

"AI has somehow become a part and parcel of every student's life in our university, and I am no exception. I can't imagine myself writing or saying something without asking AI for help. I especially use it for summarizing, paraphrasing, and brainstorming."

Academic Tasks Supported by AI:

Students indicated that they use AI tools for a wide range of academic tasks, especially those related to writing and language development. These include summarizing content, paraphrasing, organizing written work, proofreading, and correcting grammar and punctuation. For example, S5 explained that she frequently uses AI tools to correct her mistakes in grammar and punctuation, while S3 and M2 noted

that AI helps them generate and expand ideas using relevant examples and resources. M2 further explained this by stating:

“When writing a paragraph or an essay, I always feel blocked; I can’t find any ideas. I sometimes feel I have nothing to say on the topic. AI tools help me not only to find ideas but also to organize them, and this helps me develop my writing skills.”

Other students (M1, M5, M4) mentioned that they use AI tools to support them in more complex cognitive tasks such as generating ideas, expanding on concepts, retrieving information, and developing arguments.

Overall, the students’ responses to Questions 1–3 indicate that they have positive perceptions of AI tools, viewing them as effective and efficient in presenting personalized learning, in providing immediate feedback and in improving their language skills. They also indicate that they frequently use a variety of tasks, especially those related to writing and language development. However, their responses reveal a growing dependence on AI. These attitudes play an important role in shaping their continued use of AI tools and provide important context for understanding their psychological state and the use of strategies that will be highlighted in subsequent sections.

II. Psychological impact

4. Have you felt any pressure to use or avoid AI tools? If yes, why?
5. How do concerns about academic integrity influence the way you personally use AI tools in your academic work?
6. What challenges have you faced when using AI tools?

Questions 4-6 were designed to explore whether students experience pressure to use or avoid using AI-powered tools, how concerns about academic integrity affect their decisions and behaviours and the challenges they face when using these technologies.

Pressure to Use AI :

Two undergraduate students and one postgraduate student (S1, S4 and M5) reported that they feel no anxiety when using AI tools, viewing them primarily as supportive learning resources rather than substitutes for their own work. However, many students fear that over reliance on AI-powered tools could negatively affect their learning influenced by their teachers’ warnings about AI as potentially harmful or unreliable. S3 and M1, for example, reported that they use AI in their academic tasks so often, that they sometimes feel “stuck” or unable to complete the tasks without using ChatGPT, which are always here to help and “too easy” to use. These feelings of

helplessness and dependency were clearly expressed by M1 who pointed out: *“I always worry about finishing my academic tasks. I usually don’t start the task using AI, but I cannot resist turning to it at some point. I think AI is somehow eroding my ability to study”*.

Some students also felt pressure during exam preparation due to limited time. S2 stated: *“Yes, I felt pressured to use AI before, especially during exams. In certain situations, I couldn’t finish summarizing all the modules, so I used it to summarize them for me. Even though I know this may be harmful to my skills, I didn’t find another solution.”*

When asked whether she would still rely on AI if she had more time or academic support, she explained that she would prefer to summarize the materials herself to achieve a deeper understanding.

Academic Integrity and Responsible Use:

Many respondents expressed confidence to use AI tools responsibly and ethically in academic writing and research. They emphasized that AI serves only as a supportive tool, rather than a replacement for their own work. To maintain academic integrity, they stated they used these AI tools only in “routine” practices such as correcting grammar and pronunciation mistakes, paraphrasing AI-generated content, proofreading, and reformulating sentences. Other students reported their concerns related to academic integrity, expressing their fear that their work would be perceived by their instructors as cheating or plagiarism. They particularly stressed the importance of modifying AI-generated content to ensure originality. M3 highlighted this approach:

“I do not use AI to copy and paste answers directly into my work. Instead, I use it to understand complicated ideas in a simpler way so that I can find and write my own answers. After writing my response, I may discuss it with AI to explore other perspectives or gain additional insights. In this way, I use AI as a support for learning rather than as a way to cheat”.

Challenges and Concerns:

In addition to concerns about academic integrity and honesty, some students also questioned the reliability and authenticity of AI-generated responses. They feared that AI tools could sometimes produce inaccurate or fabricated content, potentially undermining negatively their critical thinking skills and problem-solving abilities. Both graduate and postgraduate students reported that over reliance on AI tools is their greatest challenge. They also mentioned that they feel tempted to use AI which diminish

independent thoughts and research. They also stated that AI tools may provide inaccurate or unclear information. M4 explained:

“Sometimes I worry that it might actually make my academic performance worse if I rely on it too much. One of my main concerns is that AI can sometimes give incorrect or imprecise answers, or ‘hallucinates’ facts that do not exist. I also think that depending on it too much could affect my thinking skills and my ability to work independently.”

Overall, the responses to Questions 4 to 6 indicate that when students use AI, they experience both pressure and temptation, particularly under time constraints. However, they also report a commitment to using AI tools responsibly and ethically in academic writing and research, emphasizing that AI serves not as a substitute for their own work, but as a tool that supports their learning. Although they are aware of the risks that AI may undermine their academic integrity and honesty, they highlight the importance of balancing AI's support with independent learning and critical engagement.

III. Students' evaluation

7. What strategies do you use to verify the accuracy of AI responses?
8. What factors might encourage you to continue or stop using AI tools in your academic tasks?

The last two questions (Qs 7 and 8) aimed to explore students' strategies in academic contexts and to examine the factors that motivate them to continue or stop using AI tools. Question 7 specifically examined the strategies students use to verify the accuracy of AI-generated responses while Question 8 examined the factors influencing their continued or limited use of these tools.

Strategies to Verify the Accuracy of AI Tools:

Graduates and postgraduates reported that they indeed use different strategies to avoid relying entirely on AI-generated content. Many of them appear to be aware of the potential limitations and inaccuracies of AI tools and therefore made efforts to verify the information before using it in their academic work. S1, S3, M3 and M5 reported that they verify the accuracy of AI tools by cross-checking information with their course materials, or by using multiple AI tools. S2 and S4 mentioned consulting their teachers or classmates for confirmation when unsure about the accuracy of the information provided. Two postgraduates also stated that they consult academic books and journal articles and use search engines and academic databases to confirm the accuracy of AI-generated information. As pointed out by M1:

“To verify the AI responses, I usually ask the AI to provide links or other sources like books and journal articles to check the information provided. In this way, I do not rely completely on AI responses.”

These practices indicate that students' dependence on AI tools does not necessarily mean that they fail to critically evaluate the information provided; rather, many actively verify and assess the credibility of the content before incorporating it into their academic work.

Factors influencing Continued or Limited Use of AI Tools:

When asked about the factors that might encourage them to continue or stop using AI tools, most respondents revealed their decision to continue using AI, citing multiple factors. These, include the perceived usefulness of AI in supporting learning, enhancing academic tasks, improving language and study skills, and reducing stress associated with academic workloads. S1, S4, S5, and M1 mentioned that AI tools particularly help them with their academic tasks as they assist them with study skills such as paraphrasing, editing and proofreading, locating appropriate research articles and summarization. Reflecting these benefits, S5 stated:

“I will never stop using AI as long as it is very effective in improving important speaking and writing skills that I need in my academic work”.

Other postgraduates including M2 and M3 highlighted AI contributed not only to improving their pedagogical practices and increasing their engagement and motivation, but also to reducing the stress associated with academic workloads. This was clearly evidenced by M3, who highlighted that he feels *“more confident in expressing myself, and my academic writing has developed a lot due to my use of AI tools”*.

Conversely, students also expressed their intentions to stop or at least limit their use of AI in their academic tasks due to its perceived risks, its impact on cognitive processes, and the possibility that the university may issue clear and effective institutional policies that regulate its ethical use in education. In other words, and despite their perceived benefits of AI, students maintain a critical perspective towards the extensive use of AI technologies due to the factors mentioned above. Some recognized that the incorrect use of these tools may lead not only to dependence on AI but also to being perceived as engaging in plagiarism, and therefore, they prefer not to use it. As pointed out by S3:

“I would never use AI to cheat. I would also avoid using AI tools if they compromise my academic integrity or if I feel what is written in my assignments is not my own”.

Two postgraduates further noted that over-reliance on AI might impair the development of essential language skills, weaken cognitive abilities such as critical thinking and problem-solving, reduce motivation, and “disrupt genuine learning” (M5). Students also mentioned that the lack of well-defined institutional policies and monitoring mechanisms creates uncertainty among students about what constitutes acceptable or unethical AI use, which may encourage them to rely more heavily on these tools in their academic work. However, they indicated that they might increasingly limit using AI tools if universities increased surveillance through AI detection software or explicit prohibition. As pointed out by M3:

“If the university clearly prohibits the use of AI in certain tasks or installs plagiarism detectors, I will certainly limit or even stop my use of AI in my academic tasks”.

Overall, the responses to Questions 7 and 8 reveal that students approach AI use with a balanced attitude. They recognize AI benefits for learning, but use it judiciously to preserve academic integrity. Their intentions are influenced by personal strategies such as cross-checking the information, using other AI-generated tools, or consulting their teachers and classmates as well as by potential risks, their impact on cognitive processes, and the presence of effective institutional policies. This highlights the balance between individual responsibility and educational policy in shaping the ethical use of AI use.

Discussion

This study aimed to explore students’ perceptions and experiences regarding the use of Artificial Intelligence (AI) in an English as a Foreign Language (EFL) context. The following subsections discuss the findings in light of the higher education context and previous research

One key finding of this study is that students view the use of AI tools positively, emphasizing three aspects which are: efficiency, personalized learning experiences, and immediate feedback. This suggests that the integration of AI in language education is shifting toward personalized and interactive learning, thereby enhancing efficiency and engagement in the educational process. This seems in line with Lee & Ravana, (2021) who assert that AI technologies contribute to a more immersive and responsive learning experience, enabling students to engage with educational content in ways that reflect

their individual preferences and learning styles. Furthermore, these benefits appear to support learners' autonomy and self-regulated learning behaviours, as they enable students to manage their own pace, monitor their progress, and take greater control over their learning processes. While some students prefer to engage in a range of AI-assisted activities such as paraphrasing, editing, and summarizing, others use AI tools for more complex cognitive processes, including generating ideas, expanding on concepts, retrieving information, and developing arguments. These "higher-order activities" require not only an understanding of existing knowledge but also the ability to evaluate, synthesize, and generate new ideas. This finding aligns with recent research by Wambsganss et al. (2024) who argue that university students particularly value AI tools that facilitate independent learning and support complex tasks.

Another important aspect of the findings is the dual role of Artificial Intelligence in students' learning experiences. On the one hand, participants reported that AI tools are highly effective in helping them organize their work, save time and effort, and practise as well as refine their language skills. These tools also support the development of language proficiency by providing access to appropriate resources and illustrative examples. In addition, AI platforms offer opportunities for vocabulary development, grammar practice, and interactive learning experiences, which contribute to improving both speaking and writing skills. In this sense, AI tools enable students to practise language skills efficiently within a simulated, supportive, and interactive environment, thereby enhancing the overall effectiveness of the learning process. This strongly aligns with prior research on the crucial role of AI tools in improving language learning outcomes as well as in enhancing personalized, interactive, and skill-oriented learning experiences (Mubinabonu & Sohib, 2024).

On the other hand, the findings reveal a growing sense of dependence on these tools, as some students expressed feelings of being "stuck" without AI assistance. While AI technologies offer substantial benefits in personalizing learning experiences and enhancing efficiency, they may also encourage over-reliance, leading students to trust AI-generated content uncritically and engage only superficially with learning material (Zhai et al., 2024). This concern is echoed by Abd-Alrazaq et al. (2023) who argue that excessive reliance on AI tools fosters "undue trust in these technologies and impedes the development of critical thinking, problem-solving, and effective communication skills". Thus, the use of AI appears to create a trade-off between immediate performance gains and long-term skill development. In other words, although AI can enhance learners' performance in the short term, it may simultaneously weaken their cognitive independence and reduce opportunities for developing essential language and critical thinking skills.

Another notable finding relates to the psychological impact of using AI in academic learning, particularly in terms of pressure, temptation, and anxiety. Apart from three students who reported experiencing no anxiety- explaining that they use AI primarily to support their learning rather than as a substitute for their own work, the majority described experiencing considerable academic stress. Such stress was mainly attributed to time constraints, particularly in preparing exams, as well as heavy academic workloads. These findings align with previous research which associates academic stress with students' perceptions of workload, exams, academic expectations, and excessive academic demands (Bedewy & Gabriel, 2015; Wong Aitken et al., 2024). Within this context, students reported turning to AI tools such as ChatGPT to seek external assistance. Although this may provide short-term academic support, several participants expressed feelings of guilt and reduced confidence in their own abilities. This suggests that total dependence on AI may be accompanied by internal conflicts between using AI tools and maintaining independent effort. Furthermore, participants' accounts indicate that frequent use of AI-generated responses may reduce their deep engagement with content, potentially encouraging surface-level learning and dependence on automated support. These interpretations are consistent with previous studies (Kim, 2023), which argue that unreflective reliance on AI tools can contribute to increased anxiety by introducing additional concerns, such as uncertainty about the accuracy of outputs, fear of their academic performance being eroded, and diminished self-confidence.

In terms of academic integrity and ethical awareness, the findings indicate that students adopt varied but generally conscious approaches to the use of AI tools. Some graduate and postgraduate students indicated that they use AI tools responsibly and ethically in academic tasks as these tools, according to them, serve as supportive tools rather than as substitutes for their work. Others also mentioned that they use AI tools for “routine” practices such as corrections, paraphrasing, proofreading, and reformulation. This suggests that students are not passive users; rather, they demonstrate a conscious awareness of plagiarism risks and make deliberate efforts to use AI in ethically acceptable ways. Recent research provides additional insight into these patterns. For example, Lund et al. (2025) propose there are two categories of students: some believe plagiarism and cheating are unethical only when they are caught, while others evaluate the same behaviours more seriously, guided by their own ethical lenses rather than by fear of surveillance. These differing views reflect what Xiao et al. (2023) describe as powerful influence of moral reasoning that can shape how AI should be adopted in practice. This suggests that students can not only actively negotiate the boundaries of acceptable use, but also demonstrate a degree of moral agency in their academic practices.

Finally, the findings suggest that students are not merely passive consumers of AI-generated content; rather, they act as critical users whose personal beliefs play a central role in deciding whether to continue or discontinue the use of AI tools. In particular, students' ethical perceptions directly influence their behaviour and shape how they engage with AI. This aligns with Lund et al.'s claim that students who see AI tools as ethical "are less likely to view it as serious misconduct." Students' decisions to continue using AI are influenced by a combination of practical and psychological factors, with ethical beliefs remaining central. For example, the students who perceived AI as useful, efficient, and supportive of their motivation and confidence were more likely to report intentions to continue using it. This aligns with Zhou and Zhang (2024), who identify perceived usefulness, high information quality, intrinsic interest, user satisfaction, and social interactions as key factors encouraging continued AI use in learning contexts. In contrast, participants who viewed AI as unethical or as a form of cheating—or who expressed concerns about overdependence, academic integrity, or potential institutional restrictions—mentioned they were less likely to adopt or accept it. These findings suggest that the adoption of AI tools is not simply a matter of accessibility; rather, it is shaped by a complex interplay of personal beliefs, academic expectations, and institutional policies.

Pedagogical implications

The findings of this study suggest several important pedagogical implications for the integration of AI in EFL contexts.

The present study indicates that AI tools can be meaningfully effective in language learning. However, this effectiveness should not be viewed solely as an individual behavioural tendency among students, but rather as shaped by broader institutional and contextual factors. Accordingly, AI should not be integrated into teaching and learning practices in a random or unstructured manner; instead, it should be incorporated purposefully and strategically. For example, teachers should guide and encourage students to use AI not only for lower-order skills—such as revising, editing, and proofreading—but also for higher-order cognitive processes, including retrieving information, generating ideas, and developing arguments.

AI tools can enhance students' critical thinking, autonomy, and self-regulated learning. However, it is essential for teachers to implement instructional practices that prevent overreliance on AI by promoting independent thinking and balancing AI-assisted activities with non-AI tasks. Within this framework, students become more aware of the need to critically evaluate AI-generated content - not only recognizing its limitations- including potential inaccuracies and biases- but also use it as a support tool rather than a definitive source of knowledge.

To uphold academic integrity in AI context, ethical awareness should be embedded into the curriculum to strengthen students' sense of responsibility and positively shape their perceptions and behaviours. Teachers should encourage students to critically reflect on the ethical implications of AI and clearly distinguish between acceptable and unacceptable academic uses, while also redesigning assessment tasks to emphasize creativity, critical thinking, problem-solving skills and originality—skills less susceptible to AI-generated work. In this way, they can reduce opportunities for misconduct and promote the students' responsible, informed, and effective use of AI.

Conclusion

This study explores graduate and postgraduate students' perceptions and feelings toward the use of Artificial Intelligence (AI) in educational contexts. It emphasizes that AI offers significant benefits for learning processes by providing personalized instruction, accurate learning environments, immediate feedback, and greater accessibility and availability of AI tools. Building on these outcomes, students are already using AI in a variety of ways, from basic tasks such as paraphrasing, proofreading, summarizing, and editing to more advanced, higher-order" activities like generating ideas, understanding complex concepts, retrieving information, and developing arguments. In this context, artificial intelligence is set to play a significant role in the future of education, making it essential to ensure that it supports genuine learning rather than merely providing shortcuts. As AI is already an integral part of academic life, whether actively embraced or not, both students and instructors must take responsibility for understanding how it works and using it effectively and responsibly to promote meaningful learning.

While artificial intelligence can enhance efficiency, support independent thinking, and facilitate exploration, students also report mixed feelings regarding its use. Many experience pressure, temptation, and anxiety, often linked to over-reliance on AI tools or concerns about maintaining academic integrity. These challenges highlight the importance of providing clear guidance, fostering open dialogue in educational settings about the responsible use of AI, and implementing instructional practices that encourage independent thinking while preventing overreliance on AI. By acknowledging the limitations of AI tools, promoting ethical awareness, and applying thoughtful instructional strategies, AI can enhance students' understanding and skill development without compromising their autonomy, critical thinking, or engagement in meaningful learning.

While this study offers valuable insights into students' perceptions and feelings about AI integration in educational contexts, there are some limitations that should be considered when interpreting the findings. First, only ten students (five graduates and

five postgraduates) participated, and this sample may not fully represent the broader student population, limiting the generalizability of the results. Additionally, the students were all enrolled in a single university in Algeria, so caution is needed when applying these findings to other universities or cultural contexts. Moreover, the study employed semi-structured interviews, which capture participants' subjective experiences and judgments, and relied solely on a qualitative approach without complementary quantitative data.

Although the current study provides valuable insights into the integration of AI in EFL contexts, further research is necessary to examine its effects across broader and more diverse educational settings. Studies involving larger and more diverse samples from different types of universities and academic levels would enhance the generalizability of the findings and provide a more comprehensive understanding of students' use of AI in education. Finally, adopting mixed-methods approaches that combine qualitative and quantitative data could offer a more comprehensive understanding of students' perceptions of AI integration in EFL contexts and the factors that shape them.

References

1. Abd-Alrazaq, A., AlSaad, R., Harfouche, M., Aziz, S., Ahmed, A., Damseh, R., & Sheikh, J. (2023). Wearable artificial intelligence for detecting anxiety: Systematic review and meta-analysis. *Journal of Medical Internet Research*, 25, Article e48754. <https://doi.org/10.2196/48754>
2. Bai, L., Liu, X., & Su, J. (2023). ChatGPT: The cognitive effects on learning and memory. *Brain-X*. <https://doi.org/10.1002/brx2.10>
3. Baker, M., Smith, R., & Jones, A. (2021). Artificial intelligence in HR: The influence of recruitment and selection techniques. *Journal of Human Resources Management*, 23, 149–168.
4. Barrett, A., & Pack, A. (2023). Not quite eye to A.I.: Student and teacher perspectives on the use of generative artificial intelligence in the writing process. *International Journal of Educational Technology in Higher Education*, 20, 59. <https://doi.org/10.1186/s41239-023-00427-0>
5. Bedewy, D., & Gabriel, A. (2015). Examining perceptions of academic stress and its sources among university students: The perception of academic stress scale. *Health Psychology Open*, 2(2), 1–9. <https://doi.org/10.1177/2055102915596714>
6. Biswas, R. A., & Molla, A. (2024). Impact of artificial intelligence on personalized learning. In M. Banerjee (Ed.), *Artificial intelligence in education: Revolutionizing learning and teaching*. <https://doi.org/10.25215/9358094575.33>

7. Black, R. W., & Tomlinson, B. (2025). University students describe how they adopt AI for writing and research in a general education course. *Scientific Reports*, 15, Article 8799. <https://doi.org/10.1038/s41598-025-92937-2>
8. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
9. Cambra-Fierro, J. J., Blasco, M. F., López-Pérez, M. E., & Trifu, A. (2024). ChatGPT adoption and its influence on faculty well-being: An empirical research in higher education. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12871-0>
10. Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., et al. (2023). Opinion paper: “So what if ChatGPT wrote it?” Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642. <https://doi.org/10.1016/j.ijinfomgt.2023.102642>
11. Font de la Vall, R., & González Araya, F. (2023). Exploring the benefits and challenges of AI-language learning tools. *The International Journal of Social Sciences and Humanities Invention*. <https://doi.org/10.18535/ijsshi/v10i01.02>
12. Gonzalez, N. A. del P., & Chiappe, A. (2024). Learning analytics and personalization of learning: A review. *Ensaio: Avaliação e Políticas Públicas em Educação*, 32(122), 1–24. <https://doi.org/10.1590/s0104-40362024003204234>
13. Grájeda, A., Burgos, J., Córdova, P., & Sanjinés, A. (2024). Assessing student-perceived impact of using artificial intelligence tools: Construction of a synthetic index of application in higher education. *Cogent Education*, 11(1), 2287917. <https://doi.org/10.1080/2331186X.2023.2287917>
14. Huang, F., Teo, T., & Zhou, M. (2019). Factors affecting Chinese English as a foreign language teachers’ technology acceptance: A qualitative study. *Journal of Educational Computing Research*, 57(1), 83–105.
15. Johnson, A., & Smith, B. (2019). The impact of personalized learning on student attitudes and self-efficacy in mathematics. *Educational Technology Research and Development*, 38(2), 201–218.
16. Kim, N. S. (2009). Foreign language reading anxiety on computer-based TOEIC test. *Modern Studies in English Language and Literature*, 53(1), 19–40.
17. Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal*, 54(2), 537–550. <https://doi.org/10.1177/00336882231162868>
18. Lazar, J., Feng, J. H., & Hochheiser, H. (2010). *Research methods in human-computer interaction*. Wiley.

19. Lee, L. N., & Raza, W. (2024). What are students saying about AI as an academic tool? In F. Peng (Ed.), *AI in language teaching, learning and assessment* (pp. xxx–xxx). IGI Global.
20. Lucking, R., & Holmes, W. (2016). *Intelligence unleashed: An argument for AI in education*. <https://discovery.ucl.ac.uk/id/eprint/1475756/>
21. Lund, B., Mannuru, N. R., Teel, Z. A., Lee, T. H., Ortega, N. J., Simmons, S., & Ward, E. (2025). Student perceptions of AI-assisted writing and academic integrity: Ethical concerns, academic misconduct, and use of generative AI in higher education. *AI and Education*, 1(1), 2. <https://doi.org/10.3390/aieduc1010002>
22. Mubinabonu, A., & Sohib, K. (2024). AI-powered tools breaking barriers in language education in Uzbekistan. *Central Asian Educational Review*, 6(4), 45–58.
23. Roll, I., & Wylie, R. (2016). Evolution and revolution in artificial intelligence in education. *International Journal of Artificial Intelligence in Education*, 26, 582–599. <https://doi.org/10.1007/s40593-016-0110-3>
24. Saunders, M. N. K., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson Education Limited.
25. Selwyn, N. (2022). The future of AI and education: Some cautionary notes. *European Journal of Education*, 57(4), 620–631.
26. Wambsganss, T., Janson, A., Söllner, M., Koedinger, K., & Leimeister, J. M. (2024). Improving students' argumentation skills using dynamic machine-learning-based modeling. *Information Systems Research*.
27. Wong Aitken, H. G., Rabanal-León, H. C., Saldaña-Bocanegra, J. C., Carranza-Yuncor, N. R., & Rondon-Eusebio, R. F. (2024). Variables linked to academic stress related to the psychological well-being of college students inside and outside the context of the COVID-19 pandemic. *Education in Science*, 14(7), 1–30. <https://doi.org/10.3390/educsci14070739>
28. Xiao, Y., Li, J., & Chen, H. (2023). Student perceptions of ChatGPT in academic settings: Balancing utility and ethics. *Journal of Educational Technology Development and Exchange*, 16(1), 35–50.
29. Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: A systematic review. *Smart Learning Environments*, 11, 28. <https://doi.org/10.1186/s40561-024-00316-7>
30. Zhou, Y., & Zhang, (2024). Factors influencing university students' continuance intentions towards self-directed learning using artificial intelligence tools: Insights from structural equation modelling and fuzzy-set qualitative comparative analysis. *Applied Sciences*, 14(18), <https://doi.org/10.3390/app14188363>.