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|   | RESEARCH ARTICLE   |  |
|   | Attitudes Towards the Use of ChatGPT in Enhancing Researchers' Academic Writing Skills in English   |  |
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| <b>Abstract</b><br>The rapid integration of artificial intelligence into academic contexts has raised important debates regarding its influence on research writing practices. Among the most widely used AI tools, ChatGPT has attracted growing attention due to its ability to generate coherent and contextually appropriate texts. While this technology offers significant support in academic writing, concerns have emerged about its potential impact on researchers' creativity and critical thinking skills. Writing remains a core competence for researchers, particularly in English as a Foreign Language (EFL) contexts, where academic writing poses persistent challenges. This article investigates researchers' and teachers' attitudes toward the use of ChatGPT in enhancing EFL researchers' writing skills. It examines both the benefits and limitations of integrating ChatGPT into academic writing practices. The study adopts a mixed methods approach, using a questionnaire administered to EFL researchers and semi-structured interviews conducted with English language teachers during the academic year 2024-2025. The findings indicate that ChatGPT can positively support the writing process by improving sentence structure, expanding academic vocabulary, and assisting in idea generation. However, excessive reliance on this tool may hinder originality, creativity, and critical thinking. The results partially confirm the research hypothesis, suggesting that ChatGPT is effective in developing writing skills when used responsibly and within clearly defined academic guidelines. The study highlights the importance of guided and ethical use of AI tools to support researchers' writing development while maintaining academic integrity. |   |  |
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## Introduction

Artificial intelligence has become one of the most influential technological developments of the modern era, affecting various fields, including higher education and academic research. One of the most prominent AI applications is ChatGPT, a conversational language model capable of generating human-like responses and producing extended

written texts. Its accessibility and efficiency have encouraged widespread use among researchers, particularly those working in English as a Foreign Language (EFL) contexts, where academic writing often represents a major challenge. Academic writing is a fundamental skill for researchers, as it reflects their analytical abilities, critical thinking, and scholarly identity. However, many EFL researchers experience difficulties in expressing ideas clearly, organizing arguments logically, and using appropriate academic vocabulary. In response to these challenges, researchers increasingly turn to technological tools such as ChatGPT to support their writing tasks. While this tool can assist in drafting, revising, and refining academic texts, its growing use has raised concerns regarding overdependence, reduced originality, and weakened critical engagement with content.

In the context of the rapid expansion of artificial intelligence, it is essential to examine how ChatGPT influences academic writing practices and how researchers perceive its role in enhancing writing skills. Understanding these perceptions can help clarify whether ChatGPT functions as a supportive academic tool or poses risks to essential research competencies.

Therefore, this article aims to explore researchers' and teachers' attitudes toward the utilization of ChatGPT in enhancing EFL researchers' writing skills. By examining both positive and negative perspectives, the study seeks to provide balanced insights into the pedagogical and academic implications of integrating AI tools into research writing practices.

## 1- Literature Review

### 1.1 Artificial Intelligence and Academic Research Writing

Artificial intelligence (AI) has become a central component of contemporary academic and research practices. The term "artificial intelligence" refers to computer-based systems designed to simulate human cognitive functions such as reasoning, problem-solving, and decision-making. Despite its widespread use, defining AI remains complex due to the difficulty of fully understanding human intelligence itself. Sheikh et al. (2023) argue that AI is challenging to define precisely because it imitates a phenomenon—human intelligence—that is not yet completely understood. Similarly, McCarthy (2007) describes AI as the science of creating intelligent machines capable of performing tasks that typically require human intelligence, without necessarily relying on biological processes.

From a research perspective, AI systems function through goal-oriented data processing rather than genuine human cognition. Mueller and Massaron (2022) emphasize that AI does not possess human intelligence but instead simulates it through algorithms designed to achieve specific objectives. This distinction is essential when evaluating AI's role in academic research, particularly in tasks that require originality, interpretation, and critical judgment.

Historically, AI development can be traced back to early theoretical foundations such as Alan Turing's work on computation and machine intelligence. Turing's concept of the "Imitation Game" (1950) laid the groundwork for evaluating machine intelligence by examining whether machines could produce responses indistinguishable from those of humans. Subsequent developments, including artificial neural networks inspired by human brain structures (Negnevitsky, 1997; Boden, 2018), contributed to the advancement of AI technologies used today in research and education.

AI offers several advantages in academic contexts. It facilitates faster access to information, supports data analysis, and enhances research productivity. Khanzode and Sarode (2020) note that AI has significantly improved how information is processed and retrieved, allowing researchers to access relevant sources more efficiently. In higher education and research environments, AI tools reduce time spent on repetitive tasks, enabling researchers to focus on higher-level analytical and creative work.

### 1.2 ChatGPT as an AI Tool in Academic Contexts

ChatGPT, developed by OpenAI, is one of the most advanced AI-based language models currently available. Built on transformer architecture, ChatGPT is trained on vast amounts of textual data, allowing it to generate coherent and contextually appropriate responses (Sakib, 2023). Unlike traditional chatbots, ChatGPT demonstrates greater flexibility, as it can engage in extended academic discussions, generate research-oriented texts, and respond to complex prompts.

ChatGPT operates through natural language processing (NLP), enabling it to understand and produce human-like language (Deng & Lin, 2022). One of its distinctive features is prompt engineering, which allows users to guide responses by carefully structuring input instructions (Shaikh Areeba et al., 2024). This feature is particularly valuable for researchers who require specific academic tones, formats, or levels of detail.

The release of ChatGPT to the public in late 2022 marked a significant shift in human-machine interaction. Božić and Poola (2023) argue that ChatGPT has transformed communication between humans and machines by enabling more natural and intuitive exchanges. Its rapid adoption—exceeding 100 million users within a short period—demonstrates its growing influence in academic and professional environments (Raees et al., 2024).

In research contexts, ChatGPT is increasingly used as a writing assistant, idea generator, and language support tool. Atlas (2023) highlights its potential role as a research assistant capable of generating drafts, refining arguments, and

assisting with administrative writing tasks. For EFL researchers, ChatGPT provides linguistic support by improving grammatical accuracy, suggesting academic vocabulary, and offering alternative phrasing.

### **ChatGPT in English as a Foreign Language (EFL) Research Writing**

Academic writing in English poses significant challenges for EFL researchers, particularly in terms of clarity, coherence, and appropriate register. Technological advancements have opened new possibilities for supporting language development in research contexts (Fryer & Carpenter, 2006). Among these technologies, ChatGPT has emerged as a widely used tool for enhancing English language proficiency.

ChatGPT supports EFL researchers by providing explanations of vocabulary, correcting grammatical errors, and assisting in drafting academic texts (Kohnke et al., 2023). Its conversational nature allows researchers to interact with the tool in a low-pressure environment, facilitating language practice and experimentation. This aligns with the broader purpose of chatbot technologies, which aim to simulate meaningful interaction with users (Fryer & Carpenter, 2006). Furthermore, ChatGPT aligns with major theoretical frameworks in language education, including Communicative Language Teaching (CLT), Task-Based Learning (TBL), and differentiated instruction. Through interactive dialogue and context-based responses, ChatGPT supports meaningful communication and learner-centered practices (Richards & Rodgers, 2001; Savignon, 1997). It also facilitates task-oriented language use by simulating real-world academic scenarios, such as conference discussions or peer-review exchanges (Ellis, 2003).

### **Ethical Considerations in the Use of ChatGPT for Research Writing**

Despite its advantages, the use of ChatGPT in academic research raises important ethical concerns. One of the most critical issues is plagiarism, as ChatGPT generates text without explicitly citing sources (Kohnke et al., 2023). This poses risks to academic integrity if researchers rely excessively on AI-generated content without proper attribution or critical evaluation.

Kostka and Toncelli (2023) warn that the uncritical use of ChatGPT may increase instances of academic misconduct and undermine scholarly originality. Additionally, ChatGPT responses are not always accurate, and users are encouraged to evaluate and verify generated content. Errors in grammar usage, contextual appropriateness, or factual accuracy have been documented (Kohnke et al., 2024).

Another concern relates to cultural bias, as ChatGPT is primarily trained on English-language and Western-centric data sources. This may influence the perspectives and language patterns reflected in its output, potentially limiting its relevance for researchers from diverse cultural backgrounds (Kohnke et al., 2023).

Therefore, while ChatGPT offers valuable support for research writing, its use must be guided by ethical principles, critical awareness, and institutional guidelines. Responsible integration of AI tools can enhance research productivity without compromising originality, creativity, or academic integrity.

## **2 .Methodology**

### **2.1 Research Design**

This study adopts a mixed-methods research design combining quantitative and qualitative approaches to investigate attitudes toward the use of ChatGPT in enhancing EFL researchers' writing skills. The mixed-methods approach allows for a comprehensive understanding of the research problem by integrating numerical data with in-depth qualitative insights. Quantitative data were collected through a questionnaire, while qualitative data were obtained through semi-structured interviews.

This design was selected to capture both researchers' practical experiences with ChatGPT and teachers' professional perspectives on its impact on academic writing.

### **2.2 Population and Sampling**

The target population of this study consisted of fifth-year EFL Researchers at the Teachers' Education College of Sétif "Messaoud Zeghar" during the academic year 2024–2025, who are actively engaged in writing their graduation theses.

A questionnaire was distributed electronically using Google Forms to two groups of these Researchers. Out of a total population of 50 potential participants, all of them responded and constituted the sample of the study. This group was selected due to their intermediate to advanced level of English proficiency and their active involvement in thesis writing tasks, making them suitable participants for examining the role of ChatGPT in enhancing academic writing.

In addition to the questionnaire participants, six English language teachers with experience in supervising graduation theses were selected for semi-structured interviews. Their inclusion provided expert insights into the pedagogical and academic implications of using ChatGPT in thesis writing.

This section consists of three questions about the participants' nationality, age, and English proficiency level.

## Q1: What is your gender?

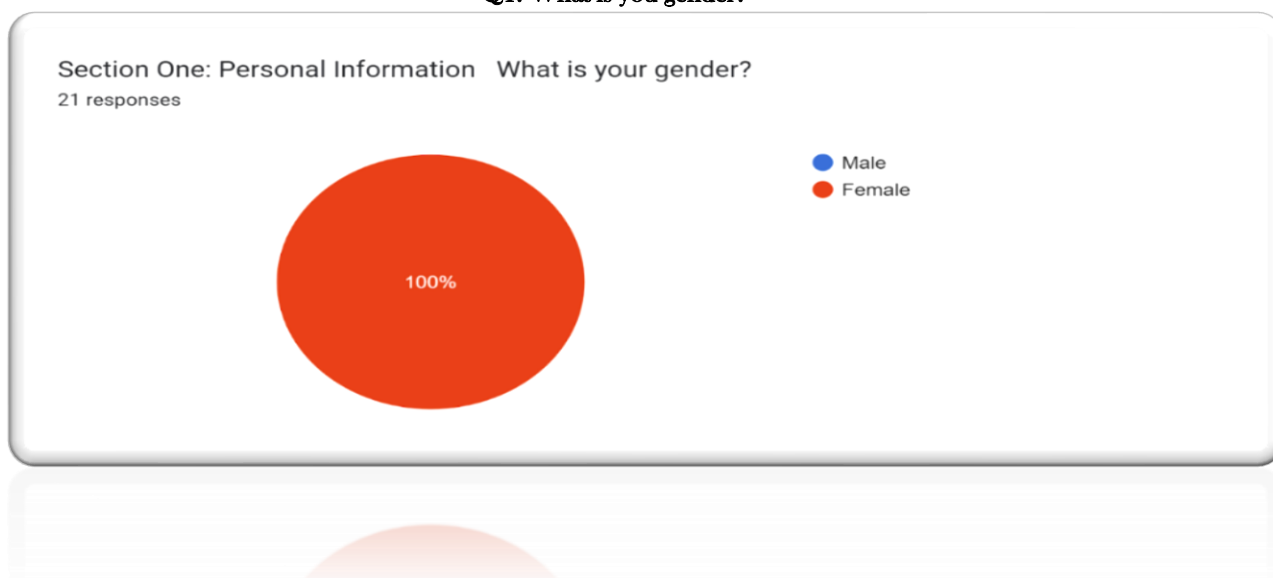


Figure 01: Researchers' Gender

Figure 01 shows that 50 (100%) participants are female. This is because most of the students in the Teachers' Training School "Messaoud Zeghar" - Setif - are female, especially those studying foreign languages. In addition to that, the field of education has recently been dominated by women.

## 2.3 Research Instruments

### 2.3.1 Questionnaire

The primary quantitative instrument used in this study was a structured questionnaire administered to EFL researchers. The questionnaire aimed to explore participants' patterns of ChatGPT usage, their perceptions of its effectiveness in improving writing skills, and their awareness of its limitations.

The questionnaire included closed-ended questions focusing on:

- Frequency of ChatGPT use in academic writing
- Purposes for which ChatGPT is used (e.g., idea generation, vocabulary enhancement, grammar correction)
- Perceived impact on sentence structure, clarity, creativity, and critical thinking

The online format facilitated easy access and encouraged participation while ensuring anonymity.

### 2.3.2 Semi-Structured Interviews

To complement the quantitative data, semi-structured interviews were conducted with six English language teachers. The interviews aimed to examine teachers' perceptions of researchers' use of ChatGPT and its influence on academic writing quality, originality, and critical engagement.

The interview questions focused on:

- Teachers' observations of ChatGPT use in academic writing
- Perceived advantages and drawbacks of AI-assisted writing
- Ethical concerns related to plagiarism and overreliance
- Recommendations for responsible and pedagogically sound use of ChatGPT

The semi-structured format allowed flexibility, enabling participants to elaborate on their views and provide detailed examples.

## 3 . Data Collection Procedures

Data collection took place during the academic year 2024-2025. The questionnaire link was distributed electronically to EFL researchers, and responses were collected over a specified period to ensure sufficient participation. Interviews with teachers were conducted individually and recorded with participants' consent to ensure accuracy in data interpretation.

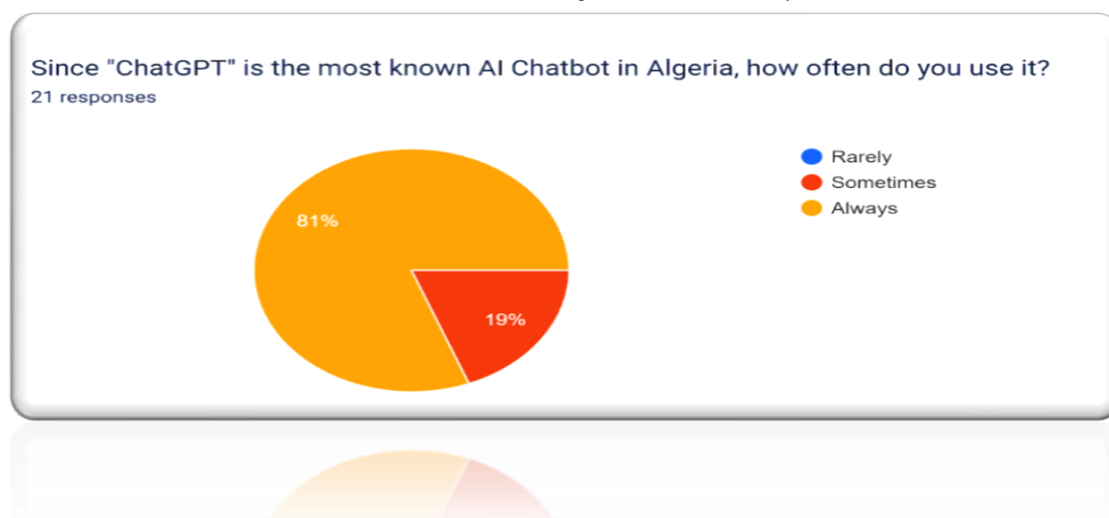
## 4 . Data Analysis

Quantitative data from the questionnaire were analyzed using descriptive statistical methods, including frequencies and percentages, to identify general trends in researchers' attitudes toward ChatGPT. Qualitative data from interviews were analyzed thematically, allowing recurring patterns and key themes to emerge.

The integration of both data sets enabled triangulation, increasing the validity and reliability of the study findings.

Here we have some examples about the analysis of the researchers' answers.

Q09: Since "ChatGPT" is the most known AI Chatbot in Algeria, how often do you use it?



**Figure 07: Researchers' Frequency of ChatGPT Use**

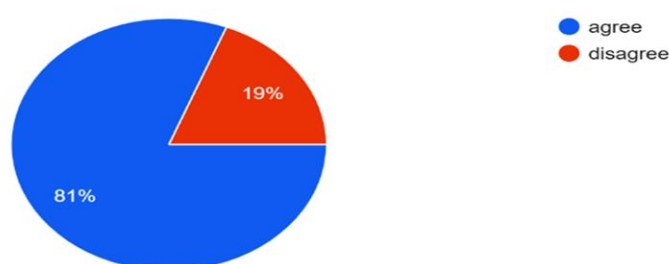
This figure illustrates that most s Researchers use ChatGPT always, with a percentage of 81%. This is a very high percentage, indicating the widespread use of technology, especially artificial intelligence tools, by Researchers. This is a good thing, especially if their use is in a positive manner. A group of 19% indicated that they use ChatGPT sometimes, meaning not always, perhaps because they have alternative sources. None of the Researchers chose the option of rarely using ChatGPT, which certainly indicates the wide acceptance of this technology among Researchers.

Q10: ChatGPT is a good means for EFL learners to improve their proficiency level.

Do you agree?

ChatGPT is a good means for EFL learners to improve their proficiency level.

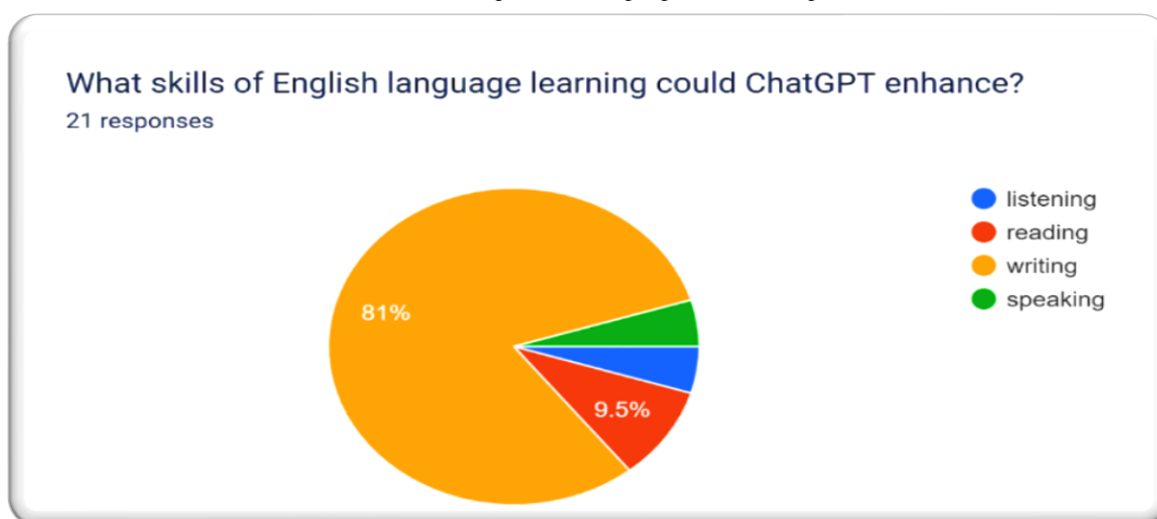
21 responses



**Figure 08: Students' Agreement with Chat GPT as good means to improve EFL learner's proficiency level**

This figure displays the agreement of 81% of respondents with the possibility of ChatGPT improving the level of English language learners. However, 19% were in disagreement with it. Therefore, we notice that most Researchers agree on the potential of ChatGPT for developing the English language, while a small group has a different opinion, perhaps seeing that ChatGPT has drawbacks that prevent it from achieving this feature.

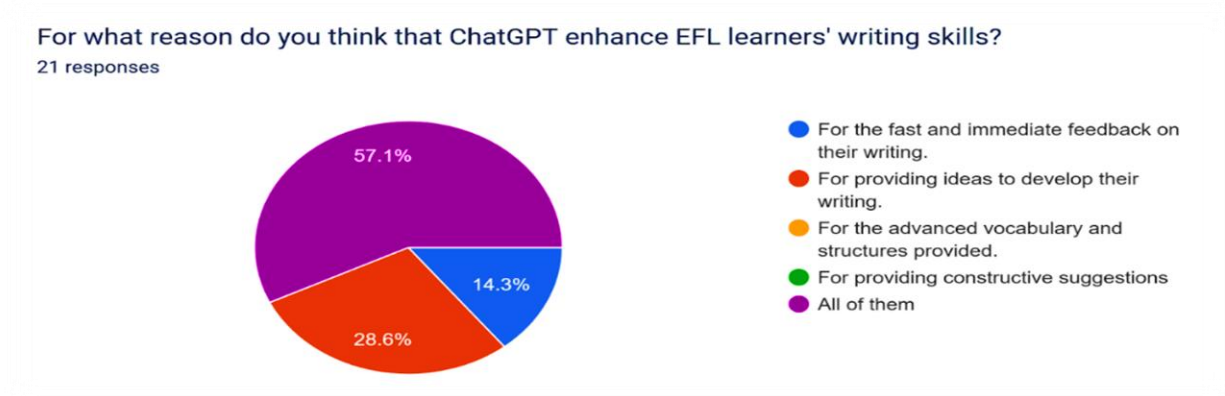
Q11: What skills of English language learning could ChatGPT enhance?



**Figure 09: Researchers' Opinion about English Language Learning Skills that Could Be Enhanced by ChatGPT**

Most Researchers chose writing skill at a rate of 81%, which is a very high percentage, indicating the Researchers' awareness of ChatGPT's role in enhancing writing skills. Meanwhile, a group of Researchers chose reading skill at a rate of 9.5%, and to a lesser extent, listening and speaking skills. Writing skill was chosen at a higher rate, perhaps because the Researchers tried ChatGPT to develop all four skills, and found that writing is the skill that this tool assists in developing more effectively than the other skills.

Q17: For what reason do you think that ChatGPT enhance EFL learners' writing skills?



**Figure 13: Researchers Perceptions on How ChatGPT Improves EFL Writing**

A large percentage, 57.1%, of Researchers chose all the proposed reasons that might be behind ChatGPT enhancing writing skills, and these reasons are as follows: fast and immediate feedback on their writing, providing ideas to develop their writing, providing advanced vocabulary and structures, and offering constructive suggestions.

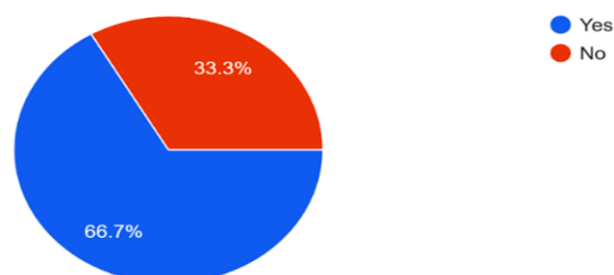
On the other hand, 28.6% chose that ChatGPT enhances writing skills by providing information to develop writing. ChatGPT provides information to a Researchers during writing to help them complete the writing process. While another group, accounting for 14.3%, chose that ChatGPT's enhancement of writing skills is due to its quick and direct feedback.



**Q18: Did you notice any changes concerning the language or style of writing you use to answer any question (eg: exam questions) after using chatGPT?**

Did you notice any changes concerning the language or style of writing you use to answer any question ( eg: exam questions) after using chatGPT?

21 responses



**Figure 14: Impact of ChatGPT on the language or Writing Style for Answering Questions**

This figure depicts that 66.7% of the Researchers noticed changes in the language and writing style they use to answer questions after using ChatGPT, while 33% did not notice any change. Perhaps this group of Researchers possesses good language skills or an excellent writing style to the extent that they have not been influenced by ChatGPT, or they do not use it enough to have an impact on them. The other possibility is that Researchers use ChatGPT for tasks that do not affect their writing style, such as brainstorming ideas. Thus, the majority noticed the change, indicating the impact ChatGPT has on the language and writing style of the Researchers.

## 5 .Results and Discussion

### 5.1 Researchers' Use of ChatGPT in Academic Writing

The questionnaire results reveal that a majority of EFL researchers use ChatGPT regularly to support their academic writing tasks. The most common purposes include generating ideas, improving sentence structure, correcting grammatical errors, and expanding academic vocabulary. These findings indicate that ChatGPT is perceived as a practical and accessible writing assistant, particularly for researchers who face linguistic challenges when writing in English.

Many respondents reported that ChatGPT helps them organize their ideas more clearly and produce coherent paragraphs. This supports previous research suggesting that AI tools can facilitate the writing process by reducing cognitive load and offering linguistic scaffolding (Faiz et al., 2023; Özçelik & Ekş, 2024).

### 6. Impact of ChatGPT on Writing Skills

The results show that ChatGPT has a positive impact on several aspects of EFL researchers' writing skills. Participants indicated noticeable improvement in sentence construction, vocabulary use, and overall clarity of expression. These findings align with studies confirming that AI-assisted writing tools can enhance formal register and academic style (Özçelik & Ekş, 2024).

However, the findings also highlight concerns related to overreliance. Some researchers acknowledged that excessive use of ChatGPT may reduce independent thinking and originality. This supports the argument made by Endang et al. (2024), who emphasize that while ChatGPT improves writing quality, it may negatively affect authenticity if used uncritically.

#### 6.1 Creativity and Critical Thinking

With regard to creativity and critical thinking, the data reveal mixed attitudes. While ChatGPT assists in brainstorming and generating initial ideas, some researchers expressed concern that relying heavily on AI-generated content may weaken their creative engagement with topics. This finding reflects earlier concerns raised by Aljuaid (2024), who argues that AI tools cannot replace the intellectual depth developed through traditional academic practices.

Teachers interviewed in this study reinforced these concerns. They observed that researchers who rely excessively on ChatGPT may produce grammatically correct texts that lack depth, argumentation, and personal voice. Nonetheless, teachers also acknowledged that when ChatGPT is used as a support tool rather than a replacement for thinking, it can encourage reflection and revision.

#### 6.2 Teachers' Perspectives on ChatGPT in Research Writing

Interview findings indicate that teachers generally hold cautious but positive attitudes toward the use of ChatGPT in academic research writing. They recognize its value in assisting EFL researchers with language accuracy and idea development. However, they emphasize the importance of academic integrity, ethical awareness, and guided use. Teachers stressed that ChatGPT should be integrated as a supplementary tool under clear guidelines, encouraging researchers to analyze, modify, and critically evaluate AI-generated content rather than copying it directly. This perspective aligns with concerns raised by Kohnke et al. (2023) regarding plagiarism and responsible AI use.

### 7. Discussion

Overall, the results partially confirm the study's hypothesis. ChatGPT can enhance EFL researchers' writing skills when used effectively and responsibly. However, uncontrolled reliance may hinder creativity and critical thinking. These findings highlight the need for balanced integration of AI tools into academic research practices.

### 8. Implications and Recommendations

The findings of this study offer important implications for academic research and English language teaching. Institutions should provide clear guidelines on the ethical use of AI tools in research writing. Teachers are encouraged to guide researchers in using ChatGPT as a learning aid rather than a substitute for critical thinking.

Training workshops on AI literacy could help researchers understand both the benefits and limitations of ChatGPT. When used responsibly, ChatGPT can serve as a valuable tool for improving academic writing while preserving originality and scholarly integrity.

### Conclusion

This article examined researchers' and teachers' attitudes toward the use of ChatGPT in enhancing EFL researchers' writing skills. The findings demonstrate that ChatGPT plays a positive role in improving linguistic accuracy, vocabulary development, and idea organization. However, its effectiveness depends largely on how it is used.

While ChatGPT can support academic writing, it cannot replace the intellectual processes of creativity, analysis, and critical thinking that define scholarly work. Therefore, its integration into research writing should be guided, ethical, and reflective. When used with awareness and moderation, ChatGPT can contribute meaningfully to the development of EFL researchers' academic writing skills in the age of artificial intelligence.

### Ethical Considerations

This study was conducted in accordance with internationally accepted ethical standards for research involving human participants. Participation in the questionnaire survey and semi-structured interviews was entirely voluntary. All participants were informed of the purpose of the study, the procedures involved, and their right to withdraw at any stage without penalty. Informed consent was obtained prior to data collection. Participants' anonymity and confidentiality were strictly maintained, and no personally identifiable information was collected or disclosed. The use of ChatGPT as a subject of investigation was addressed transparently, and the study did not involve the generation or submission of AI-produced academic texts as original research outputs. The research adhered to principles of academic integrity, data protection, and responsible use of artificial intelligence in educational research.

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### Author Contributions

Dr. Ahmed Ferhat contributed to the conceptualization of the study, research design, data collection, qualitative analysis, and drafting of the manuscript.

Dr. Dechache Mohamed Salah contributed to the methodology development, quantitative data analysis, interpretation of results, and critical revision of the manuscript.

Both authors reviewed and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

### Conflict of Interest



The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendices

### Appendix I :

### Students' Questionnaire

Dear participants,

You are kindly invited to answer this questionnaire related to a study entitled “Attitudes of teachers and students towards the Utilization of ChatGPT in Enhancing EFL students’ Writing skills”. Your assistance is highly valued as it

serves the objectives of our study. Your information will be kept confidential and will be used only for research purposes. Thank you in advance.

Section One: Personal Information \*

1. What is your gender?

☐

Male

☐

Female

2. What is your age? \*

☐

20

☐

21

☐

22

☐

Other

What is your level in English? \*

☐

Excellent

☐

Good

☐

Average

☐

Belowaverage

☐

Other:

\_\_\_\_\_

• Sectiontwo:Writingskills \*

How often do you write?

☐

Rarely

☐

Sometimes

☐

Always

• What type of texts do you write? \*

☐

InformativeTexts

☐

Creative Texts

☐

Interactive Texts

☐

DescriptiveTexts

☐

Narrative texts

☐

Other:

• For what purpose do you write? \*

☐

Todo my written school assignments.

☐

To develop my writing skills.

☐

Bothofthem.

☐

Other:

\_\_\_\_\_

- How do you improve your Writing skills? \*

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- Section three: Chat GPT \*

What is ChatGPT?

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- Since "ChatGPT" is the most known AI Chatbot in Algeria, how often do you use it? \*

☐ Rarely  
☐ Sometimes  
☐ Always

- ChatGPT is a good means for EFL learners to improve their proficiency Level. \*

☐ Agree ☐ Disagree

- What skills of English language learning could ChatGPT enhance? \*

☐ Listening  
☐ reading  
☐ writing  
☐ speaking

- Why this skill/skills in particular? \*

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- Do you use ChatGPT as a means to help you develop your writing skills? \*

☐ YES  
☐ NO

- Do you think chatGPT helps you organize your ideas before writing? \*

☐ Yes  
☐ No  
☐ Not really

- Does chatGPT affect your vocabulary or grammar? \*

☐ No  
☐ Yes

- If it does, explain.

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- For what reason do you think that ChatGPT enhance EFL learners' writing Skills?

☐ For the fast and immediate feedback on their writing.  
☐ For providing ideas to develop their writing.  
☐ For the advanced vocabulary and structures provided.  
☐ For providing constructive suggestions  
☐ All of them  
☐ Other:

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- Did you notice any changes concerning the language or style of writing

\* you use to answer any question (eg: exam questions) after using chatGPT?

☐ Yes

☐ No

- If it does explain how.

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- what are the potential drawbacks of using AI for learning a foreign Language and enhancing EFL writing skills, and

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What are the underlying reasons for these limitations?

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- Have you encountered any challenges or limitations while using ChatGPT\* for writing practice?

☐ Yes

☐ No

- If yes, please mention some of these challenges.

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## Appendix II:

### Teachers' Interview Questions

Q1: Which subject (s) do you teach?

Q2: Have you integrated any AI tools into your teaching practices before? If yes, which ones?

Q3: How familiar are you with ChatGPT and other AI writing assistants?

Q4: ChatGPT has recently become a widely used tool among EFL learners. Do you agree? What is your opinion on this?

Q5: Do you think Chat GPT is beneficial for English language learning and teaching?

Q6: Which of the four language skills—writing, reading, listening, or speaking—do you believe ChatGPT contributes the most to improving? Why this skill in particular?

Q7: Do you think ChatGPT can be used to support different aspects of writing, such as grammar, structure, creativity, or critical thinking? If so, how?

Q8: Do you allow your students to use ChatGPT for completing their writing assignments?

Q9: What strategies do you think would be effective in integrating ChatGPT into writing instruction?

Q10: Have you observed any changes in students' attitudes towards writing after using AI tools?

Q11: what are the potential drawbacks of using AI for learning a foreign language and enhancing EFL writing skills, and what are the underlying reasons for these limitations?

Q12: Do you have any suggestions or guidelines to help EFL learners develop their writing skills using ChatGPT in a legal and ethical manner, avoiding plagiarism?

Q13: Is there anything else you would like to add about the impact of ChatGPT on students' writing skills or its role in education?