

## تصورات طلاب اللغة الإنجليزية العراقيين تجاه تطبيق الذكاء الاصطناعي في كتابة البحوث الأكاديمية باللغة الإنجليزية

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### المخلص

تهدف هذه الدراسة إلى استكشاف فوائد وتحديات تطبيق الذكاء الاصطناعي في كتابة البحوث الأكاديمية باللغة الإنجليزية لطلاب الدراسات العليا العراقيين في تخصص الاقتصاد، ونشرها دولياً. استخدم الباحث منهجاً يجمع بين الأساليب الكمية والنوعية لتوضيح مزايا وتحديات استخدام تطبيقات الذكاء الاصطناعي، وذلك من خلال استبيان ومقابلات لرصد وجهات نظر الطلاب وتجاربهم والتحديات التي يواجهونها. شارك في الدراسة واحد وثلاثون طالباً عراقياً من طلاب الدراسات العليا، أكملوا استبياناً. وباستخدام أسلوب العينة الهادفة، تم اختيار عشرة مشاركين لإجراء مقابلات شبه منظمة لإثراء نتائج الاستبيان من الناحية النوعية. أظهرت النتائج أن غالبية طلاب الدراسات العليا العراقيين لديهم موقف إيجابي تجاه استخدام الذكاء الاصطناعي لتحسين كتابتهم البحثية الأكاديمية باللغة الإنجليزية. كما تُشير النتائج إلى أن طلاب الدراسات العليا العراقيين في تخصص اللغة الإنجليزية كلغة أجنبية يمكنهم استخدام تطبيقات الذكاء الاصطناعي كأدوات مساعدة قيّمة في كتابة البحوث الأكاديمية باللغة الإنجليزية في تخصصهم، عند استخدامها بحكمة. وتُبرز النتائج أيضاً أهمية الذكاء الاصطناعي في تحسين مهارات الطلاب في الكتابة باللغة الإنجليزية.

الكلمات المفتاحية: تصورات ؛ أدوات الكتابة، الذكاء الاصطناعي

# The Perceptions of Iraqi EFL students Toward the Application of Artificial Intelligence in Writing English Academic Research

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## Abstract

The study aims to explore the benefits and challenges of applying Artificial Intelligence to Iraqi postgraduate students' English academic research writing in the economics discipline, and to publish it internationally. The researcher employed mixing quantitative and qualitative approach to show the advantages and challenges of using Artificial intelligence applications. Employing a survey and interviews to reflect Iraqi postgraduate students' viewpoints, experiences, and challenges. The study's participants were thirty-one Iraqi postgraduate students ,who completed a questionnaire. Using a purposive sampling technique, 10 participants were selected for semi-structured interviews to provide qualitative depth to the survey findings. The results reflected that the largest number of Iraqi postgraduate students had a positive attitude towards using Artificial Intelligence to improve their English academic research writing. The results show that Iraqi EFL postgraduate students can use Artificial Intelligence applications as valuable assistance tools for writing English academic research in their specialization when used judiciously. The results also reflected the significance of Artificial Intelligence in enhancing students' English writing.

**Keywords:** Iraqi EFL Students' perception; writing tools, Artificial Intelligence

## 1.Introduction

Writing is one of the most challenging English skills for EFL Iraqi postgraduate students. Employing technical processes and sophisticated tools is necessary for producing high quality writing. EFL Iraqi postgraduate students regularly struggle to utilize effective writing strategies (Han et al,2021). Writing must be developed over the passage of time. Though writing is almost ignored, EFL Iraqi postgraduate students consider it one of the hardest aspects of English learning(Alsariera, and Alsarairah, 2024).

Building on the challenges of writing, it is essential to acknowledge that writing encompasses cognitive, emotional, and social processes (Pitukwong& Saraiwang, 2024). The failure of EFL Iraqi postgraduate students to write clearly may impair education (Tajik, 2025). Most EFL Iraqi postgraduate students struggle with concurrent control over multiple variables. These regulate sentence content, structure, syntax, vocabulary, grammar, spelling, and calligraphy. .. shows that practical writing extends beyond phrase structure. Information must be prepared and produced into well-structured paragraphs and phrases. Tajik(2025) argues that an instructional method without student-generated performances may not be effective in motivating Iraqi postgraduate students to write.

Building on the above challenges, EFL Iraqi postgraduate students increasingly use AI writing tools. The programs ,such as Grammar checking, plagiarism detection, and scientific publication production ,are done by AI. AI technology has enhanced a new generation of writing tools to aid EFL Iraqi postgraduate students in writing (Al Mahmud, 2023). AI tools evaluations offer more precise feedback and facilitate EFL Iraqi postgraduate students learning of content (Alharbi, 2023). Student learning traditionally relied on conventional techniques with little technology. Although the application of AI technological tools in education has introduced EFL Iraqi postgraduate students to a variety of information sources.

This change is notably obvious in EFL instruction. AI in English training has gained interest since it may enhance EFL Iraqi postgraduate students writing skills (Tajik,2025). Applying AI tools and applications to enhance EFL Iraqi postgraduate students writing, offer rapid feedback, and assist EFL Iraqi postgraduate students in producing high-quality academic papers. Therefore, artificial intelligence greatly aids academic processes. For EFL Iraqi postgraduated students, writing an academic research paper remains challenging because of the advanced skills required, including organizing ideas effectively.

Psychological and pedagogical aspects can hinder the English academic writing of many EFL Iraqi postgraduate students (Najmiah & Al-Anbari, 2025). Without teachers' guidance, stress to meet high expectations can lead to failure for Iraqi EFL postgraduate students. This obscurity often leads to anxiety, interrupting learning (Sharshova,2025). Insufficient instructor aid, especially constructive criticism, can generate isolation and uncertainty for Iraq EFL postgraduate students. Although AI assists academic writing, overreliance may decrease Iraqi postgraduate students critical thinking and creativity. While AI tools can enhance English writing and offer valuable feedback, EFL Iraqi postgraduate students may over-reliance on them and miss important instructional opinionates. For educators and researchers, plagiarism and originality remain a source of anxiety (Duong, & Chen,2025). Thus, while AI writing tools aid EFL Iraqi postgraduate students

in developing their English academic writing, their possible disadvantages must be considered so that they complement, rather than substitute, critical thinking and creativity.

Attitudes are composed of three essential psychological aspects. The cognitive aspect entails beliefs and knowledge about an attitude object; e.g., the cognitive aspect of a negative point of view toward smoking is the belief that smoking is harmful. The affective aspect refers to the feelings and emotions toward the object, such as fear, signifying a negative attitude toward snakes. The behavioral component includes the tendency to act in accordance with these emotions; individuals with a positive perception of exercise are more likely to engage in regular physical activity. Attitudes toward people, objects, and ideas are typically enduring and are shaped by experience, social contacts, and environment. EFL Iraqi postgraduate students are progressively considering the use of AI tools in writing their research papers. The Iraqi postgraduate students' perceptions of AIs' applications may influence the use of AI tools to enhance writing. Karimova (2025) analyzed students' perceptions towards AI applications. His study of SIRI, AI tools are employed at public instructions for English learning, offers valuable insights into EFL students' opinions on the role of AI applications in language learning.

The the researcher employed mixing methods to assess the role of AI tools in enhancing the academic English writing of EFL Iraqi postgraduate students. The researcher aims to reflect the Iraqi postgraduate students motivation for using AI writing tools, while also shedding light on the limitations in access to technology and communication skills. Iraqi postgraduate students' positive opinions towards utilizing technology and its applications led to an increase the Iraqi postgraduate students learning motivation and developed their academic writing performance. Therefore, assessing Iraqi postgraduate students perceptions of AIWTs, their technological experience, comfort with AI tools, and evaluations of advantages and difficulties is crucial. Thus, the current study, "**The Perception of Iraqi EFL Iraqi postgraduate students Toward the Application of Artificial Intelligence in Writing English Academic Research**" differs from past studies. To achieve the aim of this study, the researcher conducted the study with thirty-one Iraqi EFL postgraduate students at the College of Administration and Economics, University of Baghdad, using structured questionnaires and semi-structured interviews to collect the study data. Research paper writing is a required part of completing a master's study for those students. This study also examines how EFL Iraqi postgraduate students opinions on the impact of using AI on their research paper writing reveal issues of creativity and technology dependence that have been raised in previous research. It will specifically examine how Iraqi postgraduate students experiences with AI writing tools, as well as their attitudes toward the benefits and challenges, shape their approach and attitudes toward academic writing. Specifically, the author aims to explore AIWT's role in English academic writing.

## 2.Method

The methodology employed to explore Iraqi postgraduate students' attitude of Artificial Intelligence Writing Tools (AIWTs) is structured as follows: The researcher employs mixed methods to investigate the opinions of EFL (English as a Foreign Language) Iraqi postgraduate

students concerning the use of AIWTs in English academic research on their specialization. The study aims to examine complex phonemes and to gain a profound understanding of individuals' experiences, attitudes, and actions in their natural settings. In this study, the researcher uses two research methods to provide a thorough, in-depth understanding of the attitudes of Iraqi postgraduate students enrolled in the Economics department. As a result, the researcher can shed light on the complexities of the matter under investigation. During the academic year 2024-2025, this study was conducted with Iraqi postgraduate students enrolled in the College of Administration and Economics at the University of Baghdad.

### *2.1 Research Design*

The study utilizes a **mixed-methods approach**, combining both **quantitative and qualitative** methodologies. This design aims to provide a profound understanding of individuals' experiences and attitudes within their natural academic situation

#### *2.2 Participants and Setting*

The researcher conducted on only 31 Iraqi EFL Iraqi postgraduate students from the Economic Department, College of Economic and Administrative Sciences, University of Baghdad, who were selected as respondents to the questionnaire. The participants met the criterion of either planning or having finished their academic research while utilizing Artificial Intelligence in the writing process. The number of participating A.M Iraqi postgraduate students is 31. The research was conducted in the second course of the academic year 2024/2025. From the population of Iraqi EFL Iraqi postgraduate students who completed the questionnaire, only nine Iraqi postgraduate students were purposively selected as interview samples. The researcher employed a purposive sampling approach, selecting informants with specific knowledge about the study's subject. The choice of participants was based on their understanding of applying AI to enhance their English writing in their academic research in their specialization, and their willingness to contribute as participants in the study.

### *2.3. The study Instruments*

#### *2.3.1 Structured Questionnaire*

The researcher developed a structured questionnaire as the primary quantitative instrument. Using Google Forms, they sent it via email to a group of 31 Iraqi graduate students. To fully analyse students' thoughts on three topics, the exam used a Likert scale. The topics that were evaluated included how simple and helpful tools such as Grammarly and QuillBot are, how helpful AI features are for academic research, and how they believe AI will affect the quality and speed of writing. To generate a comprehensive psychological profile, the questions were divided into three categories: affective, cognitive, and behavioural. These groups investigated the students' feelings and levels of motivation, as well as the potential dangers of placing excessive reliance on creativity or of losing it altogether. To ensure everyone understood the questionnaire and provided suitable responses, it was initially distributed in Arabic. After that, it was transcribed and translated for analysis. To analyse the questionnaire for the study, we utilised descriptive statistics. The data from the interviews were analysed using thematic analysis, which enabled the researcher to uncover

patterns in the perspectives of Iraqi postgraduate students regarding the practical application of artificial intelligence. Triangulation was utilised by the researcher to further establish validity. To ensure consistency, it examined survey data and semi-structured interviews.

### 2.3.2 *Semi-Structured Interviews*

A subgroup of nine to ten Iraqi postgraduate students was purposely picked for the aim of conducting semi-structured interviews with the participants. The researcher wanted to acquire a comprehensive understanding of the participants' thoughts. The objective of these interviews was to conduct a qualitative analysis of the students' perspectives on artificial intelligence writing tools. The interviews focused on the obvious benefits of these tools, such as increased clarity and coherence, as well as the significant ethical concerns that are associated with academic integrity and the potential loss of individual creativity. To allow participants to openly express their opinions without linguistic constraints, Arabic was used to conduct the sessions. Following that, they were recorded and tracked to discover patterns (for additional information, please refer to Appendices 1, 2, 3, and 4). This study used actual quotations from these sessions to provide a comprehensive understanding of the students' motivations and the psychological factors—including both excitement and anxiety—that influence their conduct when integrating artificial intelligence into academic research. For research purposes, we arranged the interviews, transcribed them, and recorded them. On the questionnaire, questions 1, 2, 3, and 4 are designed to investigate the attitudes of AIWTs toward the production of research articles written in English. AIWTs have several positive aspects, including items 6, 8, 9, and 10. The downsides of AIWTs are listed in items 11, 12, 13, and 14, respectively. Item 4 concerns the emotions students are experiencing. The topic of discussion for Item 9 is what motivates students to engage in activities. Item 7 (the rate at which ideas are developed) is a functional benefit that significantly boosts efficiency, according to the statistics.

Nevertheless, in terms of its quality, it is regarded as a potential risk factor alongside Items 11–14. This result has two repercussions. It is a functional advantage from a statistical point of view, but from a qualitative point of view, it is a behavioural danger of intellectual lethargy. This "dual-coding" demonstrates how complicated the participants are: they appreciate the time saved, but they are also concerned that if they move too quickly, they might skip key steps in a deep, critical assessment.

### 2.4 *Research Ethics*

Throughout the research process, the researcher ensured the study's integrity and rigour by implementing a number of quality controls and considering the ethical implications. Participants were selected to ensure they had the necessary knowledge and experience in artificial intelligence to enhance their academic writing in English. It was made abundantly obvious that the student was the originator and that the AI was merely a tool. To ensure the findings are accurate, the researcher utilised triangulation, which involved cross-referencing data from questionnaires and semi-structured interviews. This was done in order to check that the results were consistent. The purpose of the study was to investigate the "judicious" use of technology by assessing participants' comprehension of the limitations and ethical issues associated with artificial intelligence (AI), such as the potential for plagiarism and the reduction of creative thought. In addition, the researcher

ensured that participants' involvement was balanced between technical support and human competence. This was done in accordance with the academic criteria that require reliability and uniqueness.

### 3.The Results and Discussion

The outcomes of the study are presented in this section. The study focuses on the perspectives of Iraqi EFL postgraduate students regarding an artificial intelligence application that can be used to compose academic research in their English specialisation and then disseminate it abroad. The Tripartite Model of Attitude was utilised in this study, with the primary attention being placed on the cognitive, behavioural, and affective aspects of utilising AIWTs to enhance academic writing in English. In order to provide a thorough picture of the attitudes, experiences, and usage patterns of Iraqi postgraduate students, the findings of this study make use of questionnaire responses and qualitative interview data.

The researcher employs thematic analysis to scrutinize the findings. Responses from Iraqi postgraduate students on the pros and cons of using AIWTs to improve their English writing and their emotional responses are presented.. The researcher used direct quotations from questionnaires and semi-structured interviews in data analysis to elucidate the viewpoints and concerns of Iraqi postgraduate students. It assesses the pros and cons of AI against the necessity for creativity and critical thinking. The subsequent sections delineate particular facets of Iraqi postgraduate students' perspectives, underpinned by qualitative data to augment comprehension of the discourse.

#### ***3.1 Iraqi Postgraduate Students Comprehension, Perceptions, and Influential components in the application of AIWTs.***

Iraqi postgraduate students comprehension of AI applications in English academic research writing shows their understanding of AI tools as powerful tools to enhance their English writing , along with their advantages and risks. AI has become a key part of improving Iraqi postgraduate students academic writing processes. It aids in idea generation, grammar checking, paraphrasing, and organization to develop clarity and coherence (Ftria, 2025). Many Iraqi postgraduate students are familiar with various of AI programs, such as Grammarly and QuillBot, Perplexity AI ,and DeepL, which they use for various educational purposes. Most Iraqi postgraduate students view AI as a solution for writing difficulties, principally for those who struggle to structure arguments and maintain grammatical correctness. Iraqi postgraduate students also recognize that AI has limits, especially in comprehending the rich and complex contexts needed for academic research writing in their specialization in the English language. This shows with the nine participants' statements , for example:

*S1: AI writing tools like Grammarly and QuillBot are remarkably accessible and user-friendly. For an Economics researcher, they significantly accelerate the drafting process, allowing me to focus more on data analysis and economic modeling rather than struggling with complex English syntax.*

There is a Cognitive Support in the response (S1), when he proves the belief that AI allows focus on "data analysis and economic modeling" rather than linguistic struggle.

*S3 : "AI is important for improving the quality of my English academic prose and literature review sections, which are essential for publication in the field of Economics. I can check and fix my work to meet international standards with AI."*

The following comments show that postgraduate students in economics see AI as more than simply a useful tool; they see it as an important instrument for attaining the high language standards of international publications. AIWTs are very important right now, as they are not only an improvement but also a key factor in how well academic research works. AIWTs can help EFL Iraqi postgraduate students organize their writing in English, define the substance of their research, and greatly improve the support they receive during research, analysis, and writing (Hanifah & Pratama, 2025). The usage of AIWTs is essential since they facilitate the development of academic writing and are simple to comprehend.

Based on this well-rounded viewpoint, it can be deduced that Iraqi students of English as a foreign language who are pursuing postgraduate degrees view AIWTs as valuable instruments rather than merely options for cognitive input (Ftria, 2025). It was clear from the quantitative findings that there is a strong cognitive confidence in the importance of artificial intelligence for contemporary research. About eighty percent of the participants, or twenty-five out of thirty-one, stated that Grammarly and QuillBot are essential when it comes to producing papers. The students do not consider these tools to be optional; rather, they consider them to be "essential infrastructure" for comprehending the difficulties that are associated with technical English. In addition, the responses to the questionnaire demonstrated that 74% of the participants (23 out of 31) demonstrated that AIWTs improved the overall quality of their writing. This finding lends credence to the assertions made by Iraqi postgraduate students during the interview that AIWTs assisted with clarity and coherence.

For S2, AI applications have the critical significance in Iraqi postgraduate students academic writing. S3 highlighted that AIWTs have a significant role in paraphrasing, idea enhancement, punctuation, and typo correction. S3 also added that AIWTs support inventiveness, argument detail, and logical reasoning. AIWTs can translate and produce an academic research. This is advantageous in today's globalized society. S3 indicated that AIWTs are more than writing assistances. These technological tools enhance productivity, save time, and develop Iraqi postgraduate students writing quality by promoting creativity and efficiency.

To sum up, Iraqi EFL Iraqi postgraduate students acknowledged the beneficial and substantial influence of AI in improving their English writing. According to the results, AIWTs convey tailored feedback and pertinent recommendations, enhancing EFL Iraqi postgraduate students confidence and capabilities in writing academic research in English.

This comment shows that Iraqi EFL postgraduate students use AIWTs mainly as technical support aids. They do not rely on it for making content. Their focus on personal responsibility in their English academic writing shows that they are trying to make sure that AIWTs help rather than replace independent ideas. The substantial emotional undercurrent of fear (51.6%) concerning the loss of creativity indicates that students do not perceive AI as a complete substitute. This research argues for a **Human-in-the-loop** model where the student remains the primary author responsible for 'ideation' and 'verification,' while the AI serves as a 'scaffold' for technical linguistic support. By selecting AIWTs to develop grammar and structure, rather than creating content independently,

Iraqi postgraduate students indicate they still develop their own arguments and perceptions. This study shows that while Iraqi EFL postgraduate students see AIWTs as useful for enhancing their writings in English, they are still wary of excessive dependence on these technological means (Abdullah, 2025)

However, English 61% (19 out of 31 participants). They were concerned that AIWTs could reduce the creativity. This supports the thought that these tools should be used wisely so as not to reduce Iraqi postgraduate students critical thinking abilities. Moreover, 67% (21 out of 31 participants) agreed that AIWT applications cannot fully replace in-depth analysis and critical thinking, which is in line with the research's interviews, underlining the limitations of AIWT applications in understanding complex instructional contexts.

### ***3.2. Iraqi EFL Postgraduate Students' Affective Perception of Utilizing AIWT Applications***

#### ***a. Iraqi EFL Postgraduate Students' Feelings toward Utilizing AIWTs***

Most Iraqi EFL postgraduate students agreed that AIWTs are useful aids. The findings showed that the majority of Iraqi postgraduate students respond positively toward utilizing AI in their English academic research writing. They considered AIWTs as collaborators capable of enhancing both the efficiency and quality of their English academic writing, in addition to serving as helpful tools. S1 conveyed her pleasure with the integration of AIWTs and how these tools effectively concealed deficiencies in students' academic English writing. This affirmative claim suggests that AIWTs significantly contributed to Iraqi EFL postgraduate students' ability to overcome difficulties in English writing.

*S1: "I am exceedingly delighted that the using of AIWTs have mitigated obstacles in EFL Iraqi postgraduate students' English writing".*

Unlike S2, who revealed her interest to the support AI tools provided in her academic writing endeavors in English, S3 acknowledged the helpfulness of AIWTs in EFL Iraqi postgraduate students' English writing while underscoring the importance of exercising caution and attempting not to rely on AIWTs to generate ideas and gaining diverse perceptions in English academic writing. The practical implication of these results is the necessity for a balanced method to the application of AIWT applications in English writing research on their specialization, which harnesses technological advantages while preserving a student's creativity and originality in English writing (Tajik, 2025). Therefore, rather than only relying solely on the information generated by AIWTs, it is essential to reflect on the usefulness of AIWTs as resources for understanding and inspiration to appreciate the significance of this study and its objective (Al Mahmud, 2023).

*S4 : " AI help me write faster, make fewer grammar mistakes, and organize my ideas better. Using AI saves time and lets Iraqi postgraduate students focus more on what they want to say instead of worrying about things like an grammar and sentence structure".*

For S4 ,AIWTs enhance writing efficiency, reduces grammatical errors, and organizes arguments more cohesively. AIWTs aid in delivering instant feedback, helping Iraqi postgraduate students refine concepts and create more sophisticated academic research. Accessible writing

support boosts EFL student confidence, particularly for those struggling with academic writing (Marzuki et al, 2023). Furthermore, AIWTs tools ,for example, Grammarly give personalized feedback, encouraging engagement and improving grammar and structure (Tajik, 2025)

*S7: "AIWTs had facilitated Iraqi postgraduate students academic writing in English. These technological tools enable Iraqi postgraduate students to write at their own pace and according to their individual needs".*

Similar to S7's favorable response to the function of AIWTs, S8 likewise recognized that these tools had facilitated her English writing. S7 highlighted the primary advantage, which is the developed speed of executing writing activities. Accompanied by AIWTs enable Iraqi EFL postgraduate students to write at their own pace and according to their individual needs, creating a more adaptable and personalized learning environment (Dekhakhena, 2025). As a result, Iraqi postgraduate students can optimize their time and efficiency during the creative writing process, fostering an environment conducive to contemporary productivity tools, which really assist me as a college EFL student. My primary observation is that my academic writing in English becomes more swiftly.

*S8: Utilizing AI tools provides a sense of security when preparing my manuscript for international publication. It ensures that my literature review and discussion of economic findings are presented with professional clarity, reducing the linguistic barriers that often hinder Iraqi scholars in the global academic arena.*

According to S8, artificial intelligence serves as an "emotional buffer" that provides consumers with a "sense of security" because it protects them from the stress of rejection by international magazines. S8 also discussed the emotional aspect of artificial intelligence, stating that it provides individuals with a sense of less anxiety and increased confidence in regard to international standards. S8 also discussed how artificial intelligence can assist individuals in coping with the anxiety that comes with rejection. The emotional domain investigated the children's feelings about their own safety and anxiety. The use of artificial intelligence (AI) to assist students with their academic work was reported to make seventy-four percent of pupils feel "more comfortable" and "happy." Based on the qualitative interviews, it appears that this beneficial effect results from reduced language anxiety. The "Anxiety" Factor, on the other hand, was found to be a significant emotional countertrend. Given that 51.6% of students are concerned about losing their creative voice, the findings should conclude with a suggestion for a framework that incorporates Human-in-the-Loop (HITL) technology. The fact that students expressed a profound fear of losing their creative voice demonstrates that, while artificial intelligence provides them with increased confidence in grammar, it also causes them to experience anxiety about their intellectual identity.

The student believes that making use of AIWT apps can assist them in improving their writing skills. It also demonstrates that Iraqi graduate students need to be able to think independently while they are conducting research for their academic studies. AIWTs are fantastic for putting text in order, but they can't take the job of thinking critically. The study's questionnaire showed that 77% (24 out of 31 students) saw AI as a time-saving tool for academic assignments. This result supports the interviews, which showed that AI assisted Iraqi postgraduate students organize their English academic research. Also, 64% (20 out of 31 students) said AI helped them write their thesis

academic proposals. This matches interviews indicating that AI assists but does not replace individual thought.

*b. Iraqi EFL Postgraduate Students Enthusiasm for the Usage of AIWTS*

*S2: "I am glad that AI tools have developed my English writing".*

*S3: "I attempt to use AI tools optimally, Although I do not depend solely on them. I mainly use AI tools to stimulate thought and offer a broader perspective when addressing inquiries or composing scientific publications. However, I do not depend exclusively on the outcomes produced by AI tools".*

*S4: "I was truly impressed by the usefulness of AI. Still, I realized that AI cannot be applied at times, so I need to make my own effort as well".*

*S3, unlike S2, acknowledged the use of AI tools in her writing in English but stressed the need for caution and avoidance of complete dependence on these tools to stimulate ideas and acquire diverse viewpoints in academic writing. Applying AIWTS in English writing requires a balanced approach that leverages technological advantages while preserving a person's creativity and originality (Alsariera and Alsarairah, 2024). Thus, rather than just depending on AIWTS, it is essential to strategically employ them for inspiration and knowledge to understand research and writing.*

The S2, S3, and S4 comments show enthusiasm about usefulness of AIWTS. They also reflect growing recognition of its limitations. It is necessary to recognize that AIWTS cannot address all aspects of writing highpoints the need for an individual's participation. Humans must improve concepts, uphold academic integrity, and advantages while preserving a person's creativity and originality (Hsiung & Hsieh, 2024) . This change in attitude shows that EFL Iraqi postgraduate students first saw AIWTS as transformative, but now view them as supplemental tools rather than predominant in writing. The results reveal that algorithmic writing provides efficiency advantages, but unexamined use may be a risk to academic integrity and diminish EFL learner agency (Brickhill ET AL,2025)

The findings show that the majority of Iraqi EFL Iraqi postgraduate students respond positively to the integration of AIWTS in the English writing process. They saw AIWTS as collaborators able of developing both the writing's efficiency and quality, as well as serving as a useful tool. S1 articulated her pleasure with the practice of AIWTS and how the technology effectively concealed obstacles in her English writing. This affirmative remark suggests that AIWTS significantly contributed to this ability of Iraqi postgraduate students to surmount most writing obstacles.

According to a previous study (Rickhill et al., 2025), Iraqi postgraduate students of English as a foreign language (EFL) use artificial intelligence writing tools (AIWTS) as beneficial tools for their English writing. However, they also express concerns about the trustworthiness of these tools and the potential implications they may have for academic integrity. This assertion is supported by the findings of a survey: eighty percent of Iraqi postgraduate students, or twenty-five out of thirty-five, strongly agreed or acknowledged that AIWTS speed up the development of ideas in research writing, demonstrating initial enthusiasm. Furthermore, seventy percent of respondents (22 out of

31) stated that AIWTs assisted them in making their views more apparent. Nevertheless, 41% of respondents (13 out of 31) provided a neutral response or indicated that AIWTs did not help them write in English at all. This gives the impression that they did not have full faith in their ability to trust it.

### 3.3. EFL Iraqi Postgraduate Students' Behavioral Perception of Utilizing AIWTs

*a. The positive attitudes of Iraqi postgraduate EFL students towards the implementation of AIWTs in their English writing:*

*S7: The speed at which AI can come up with ideas is a big plus for reaching tight academic deadlines, but I'm careful not to rely on it too much.. In the field of Economics, original thought is paramount; therefore, I use AI to catalyze my brainstorming process rather than letting it dictate the core arguments of my research.*

*S2: " I usually use AIWTs in the first stages for collecting references. Sometimes, when I get stuck, I also apply these tools to organize my writing structure in English "*

*S8: " AI tools influenced positively my English writing. AIWTs facilitated the logical link of my English writing ideas during the active use of transition words and phrases. AIWTs facilitate the fast and effective organization of my assignments.*

S7 demonstrated "**judicious use**," where the student uses AI only to "catalyze" brainstorming rather than to dictate arguments. focused on the "judicious use" of technology, where the student balances AI speed with human critical thinking. At the same time, S8 indicated that AIWTs positively influenced the organization of concepts in English writing by utilizing effective transition words and phrases. Moreover, AIWTs provided prompt evaluations, allowing S8 to integrate explicit transitional elements, thereby increasing the organization and clarity of her work. S9 further underlined the benefits of AIWTs in accelerating and increasing the efficiency of the task-writing process. In contrast, S8 suggests that AIWTs serve as facilitative tools in the initial stages of writing, helping Iraqi postgraduate students formulate and organize their ideas. However, it also implies that AIWTs are not necessarily the last step in writing, as EFL Iraqi postgraduate students still need to refine and develop their arguments further. In fact, EFL Iraqi postgraduate students primarily use AIWTs for generating ideas rather than creating full content ,which shows that they see AIWTs as an initial point rather than a substitute for their academic efforts(Guo et al ,2024)

EFL Iraqi postgraduate students employ various techniques to integrate AIWTs into their English research writing. Most EFL Iraqi postgraduate students utilize AIWTs for paraphrasing and grammar checking. They often rely on AIWTs at the start of writing, especially for finding and correcting errors, references, and improving text coherence. EFL Iraqi postgraduate students also use AIWTs to refine sentence structure and explain their arguments, making their writing process in English more efficient and organized (Zhao et al, 2024). Surveys state that 83% (26 of 31) agree AIWTs speed up idea generation for writing academic research in English, 80% (25 of 31) find AIWTs help organize arguments, and 74% (23 of 31) use AIWTs for sourcing, paraphrasing, referencing, or emphasizing its vital role in early writing steps.

b. *EFL Iraqi postgraduate students creativity and critical thinking capabilities* .

S3:" The dependence on AIWTs may diminish the Iraqi postgraduate students creativity in writing".

S7:" AIWTs can lack contextual relevance, leading to a confusion".

S5:" Though AIWTs can increase Iraqi postgraduate students vocabulary and develop their writing, ensuring seamless coherence through paragraphs, these technological tools may still lack contextual relevance, which can result in misunderstandings".

S6:"An excessive dependency on AIWTs may impede Iraqi postgraduate students autonomous critical thinking. Although AI WTs serve as valuable resources, EFL Iraqi postgraduate students clearly understand its limitations and recognize the necessity of human judgment and originality in academic writing in English " .

The above Iraqi postgraduate students comments demonstrate EFL Iraqi postgraduate students recognition of the requirement to preserve a balance in applying AIWTs to prevent overdependence. S3 stated that the reliance on AIWTs raises concerns about reduced creativity, despite their support in understanding problems and providing many solutions in Iraqi postgraduate students English writing. For S7, AIWT applications increase EFL Iraqi postgraduate students vocabulary and improve their writing, ensuring seamless coherence across paragraphs. Nevertheless, certain sentences may not support the context, so Iraqi postgraduate students need to verify the results and manually amend them to improve the quality of their work.S6 indicated that AIWT applications may undermine EFL Iraqi postgraduate students critical thinking skills. Some Iraqi EFL postgraduate students personalized Artificial Intelligence productivity to align more carefully with academic norms, showing that they did not only depend on Artificial Intelligences' tools without reassessment. It is recommended that AIWTs be utilized strategically to optimize their advantages while maintaining Iraqi postgraduate students cognitive engagement. If Iraqi postgraduate students studying English as a Foreign Language (EFL) depend too much on AIWTs for assignments that need them to think for themselves, they can have a hard time developing the analytical and problem-solving abilities they need to do well in school.

This aligns with prior research showing that the application of AIWTs has engendered anxieties about dependence on AIWTs, implying a probable diminishment of creativity in writing (Zhao,2024). In general, AI tools have a positive influence on students writing quality, notwithstanding specific considerations and anxieties regarding their utilization of AIWTs.

Added evidence is delivered by the questionnaire, which stated that 74% (23 out of 31 students) modified the AIWTs content to support Iraqi postgraduate students academic ethics, demonstrating that Iraqi postgraduate students use AI responsibly. moreover, 83% (26 out of 31students) said that they engage in critical thinking when applying AI, corroborating the interview results that Iraqi postgraduate students recognize the necessity of restricting AIWTs usage to preserve its relevance in academic endeavors.

c. *Confidence in the Utilization of AIWTs*

AIWTs are often viewed as tools to enhance Iraqi postgraduate students writing, but student confidence in using AIWTs varies significantly. For instance:

*S2" Certainly..." lack of confidence is due to the presence of AIWTs in my work, which is not completely my own.*

*S6" My self-confidence decreases because of the incorporation of my thoughts with those of the AIWTs." Occasionally, I identify the outcomes as deficient because of certain errors introduced by the AIWTs.*

*S9" Lacking of confidence is duo to applying all this will compromise my originality".*

*S10" I recognize that AIWTs can present numerous chances; nonetheless, I am concerned about the potential obstacles if I do not exercise sufficient attention .*

Relying too heavily on AIWTs may hinder EFL Iraqi postgraduate students abilities to develop their independent writing skills. This concern supports findings that over-reliance on AIWTs can impede Iraqi postgraduate students critical thinking and independent writing abilities (Guendouz & Benettayeb,2025). With the application of AI, concerns have been raised regarding its genuineness, and issues related to reduced critical thinking have been identified in several previous studies (Rizkian et al,2024). Artificial Intelligence assists in idea generation, delivering prompt responses, and argument structure, therefore decreasing Iraqi postgraduate students writing anxiety. However, there are concerns about excessive dependence on Artificial Intelligences' applications, which may hinder Iraqi postgraduate students critical thinking and innovation. Furthermore, those students are familiar with the ethical dilemmas related with the use of Artificial Intelligence, principally in terms of originality and plagiarism. The findings reveal the benefits of AIWTs while underscoring the requirement of ethical utilization, specifically the importance of maintaining balance in the recommendations implementation. This encompasses a passionate aspect wherein Iraqi postgraduate students may experience worry and a lack of confidence when incorporating personal ideas with AIWTs' recommendations. These issues pertain to discussions over instructive integrity and the ethical implications of AIWTs' utilization. For Rizkiani et al(2024), Iraqi EFL postgraduate students should strike a balance in their utilization of AIWTs to prevent excessive dependence.

Survey data state that 70% of Iraqi postgraduate students (22 out of 31) approval that AI enhanced their English writing quality,80% (25 out of 31) said it developed organization, and 74% (23 out of 31) felt that AIWTs gave them better control over their academic writing. Still, 51% (16 of 31) worried that AIWTs could stifle their creativity, reflecting their awareness of possible overreliance.

#### **4. Limitations**

The samples' selection of this research is confined to the Iraqi region, specifically directing Iraqi postgraduate students at the College of Administration and Economics at Baghdad University. The sample's selection and the conclusions' universality need supplementary investigation. Secondly, the researcher uses a questionnaire and interview method to gather and analyze data from a sample of persons. The study methodology may be to some extent simplistic and lacking in depth.

## 5. Conclusions and Recommendations

This study reflected the intricate perspectives of Iraqi EFL Iraqi postgraduate students on the utilization of AI tools in writing academic research in English. Utilizing AIWTs assisted the majority of EFL Iraqi postgraduate students effectively in multiple facets of writing, including the enhancement of the rectification and originality of errors. This is supported by other research showing that artificial intelligence technology enhances writing skills. Nevertheless, relying on AIWT applications may potentially diminish a person's creativity in writing.

Accordingly, a balanced approach to the utilization of AIWTs in universities is crucial to maintain the integrity of original writing. Thus, our findings have pragmatic implications; a balanced approach for using AIWTs is essential. This will help EFL Iraqi postgraduate students to enhance their English language and increase their confidence in writing academic research in English. The main results suggest that Iraqi postgraduate students studying English as a Foreign Language (EFL) usually have positive views about AIWTs, especially when it comes to how they can speed up the writing process and improve the structure of their English writing. Still, they are concerned about placing an excessive amount of reliance on AIWTs. AIWTs were enjoyed by Iraqi postgraduate students learning English as a foreign language, as they provided practical benefits, such as helping them check their grammar, organise their thoughts, and generate ideas to improve their English in academic research writing. Despite this, they acknowledged the limitations of AIWTs in complex academic settings, particularly their ability to comprehend contextual nuances and provide evaluations that are both critical and comprehensive. In addition, Iraqi postgraduate students of English as a Foreign Language expressed concerns that AIWT activities could compromise creative and critical thinking due to the lack of effective regulation governing these practices. These students also emphasised how essential it is for AIWT programs to be utilised with a full awareness of teaching ethics, particularly regarding issues of creativity and the potential for unintended plagiarism. The results of this study highlighted the importance of enhancing AIWT literacy among Iraqi postgraduate students studying English as a foreign language (EFL), as well as the absolute necessity for educators to provide formal instruction to ensure the ethical and successful utilisation of AIWTs. Recommendations available for scholars who come after you: For the sake of future research, it is recommended that efforts be made to increase sample sizes in order to include people from a wide range of geographical areas, educational institutions, and cultural situations. By doing so, we will be able to gain a better understanding of how Iraqi graduate students respond to the use of AIWT in academic research writing. In addition, the combination of qualitative and quantitative research methods has the potential to offer substantial insights into the difficulties and advantages experienced by Iraqi postgraduate students of English as a foreign language who use AIWT software. Additionally, longitudinal studies could examine Iraqi postgraduate students' attitudes toward AIWTs over time. This would allow us to gain a more in-depth understanding of the development of these attitudes as well as the variables that have significantly influenced them.

In this article, some significant recommendations are provided. Academic researchers and institutions should make greater use of AIWT apps in their research processes to obtain the

maximum benefit from these applications. In order to have a significant impact on every aspect of academic life, AIWTs need to satisfy the requirements of being both broad and deep. Additionally, it is essential to work with AIWTs in a morally sound manner. The researchers are obligated to use these technological tools in a way that protects the authenticity and originality of their academic research writing. They must also prevent any misuse that may weaken the standards of the academic community. Thirdly, it is essential to dedicate sufficient time to training and acclimating to the new environment. It is vital for academics to acquire these skills to develop proficiency in the active use of AI tools, enabling them to maximise their potential in academic endeavours.

Additionally, there ought to be a careful balance between the use of AIWTs and human knowledge, particularly in areas such as idea generation and research methods. When it comes to artificial intelligence, it is essential to strike the right balance to ensure that AIWTs do not diminish the creative and analytical thinking that are essential components of human intelligence. Because AIWTs in academic institutions are continually improving, research and development must be sustained. To enhance these technical tools, address new challenges, and examine ethical implications, this ongoing investigation is essential. This will ensure that AIWTs continue to have a positive and progressive impact on academic research writing. The expansion of advanced artificial intelligence work teams (AIWTs) for hypothesis generation and predictive analysis, the formulation of ethical frameworks for the utilisation of AIWTs, the investigation of optimal human-AI collaboration models, the exploration of the role that AIWTs play in interdisciplinary research, the enhancement of AIWTs' impact on data management, analysis, publishing processes, editing, and review, and the examination of AI's influence on communication and outreach are some of the future research directions that will be pursued. To find solutions to problems, enhance tools, and ensure AIWTs are utilised ethically in academic settings, it is essential to continue research.

## References

- Abdullah, M. Y. (2025). Probing into EFL students' perceptions about the impact of utilizing AI-powered tools on their academic writing practices. *Education and Information Technologies*, 1-3
- Alharbi, W. (2023). AI in the foreign language classroom: A pedagogical overview of automated writing assistance tools. *Education Research International*, 2023(1), 4253331
- Al Mahmud, F. (2023). Investigating EFL students' writing skills through artificial intelligence: Wordtune application as a tool. *Journal of Language Teaching and Research*, 14(5), 1395-1404
- Alsariera, A. H., & Alsaraireh, M. Y. (2024). Advancing EFL Writing Proficiency in Jordan: Addressing Challenges and Embedding Progressive Strategies. *International Journal of Arabic-English Studies (IJAES)*, 24(2)
- Brickhill, M., Andrews, G., & Nieuwoudt, J. (2025). Developing student agency towards academic integrity through an educative approach: Exploring students' experiences and perspectives. *Journal of academic ethics*, 23(3), 951-975

- Dekhakhena, A. (2025). AI-Powered Personalized Learning in EFL Acquisition: Exploring Adaptive Instruction and Feedback Systems. *Journal of Studies in Language, Culture and Society (JSLCS)*, 8(1), 111-131
- Duong, T. N. A., & Chen, H. L. (2025). An AI chatbot for EFL writing: Students' usage tendencies, writing performance, and perceptions. *Journal of Educational Computing Research*, 63(2), 406-430
- Guendouz, A., & Benettayeb, A. (2025). Using AI-Powered Tools to Develop Critical Thinking Skills among Students in EFL Writing: Perceptions and Challenges. *10(2)*, 426-44 *اتفاق للعلوم*
- Guo, S., Zheng, Y., & Zhai, X. (2024). Artificial intelligence in education research during 2013–2023: A review based on bibliometric analysis. *Education and information technologies*, 29(13), 16387-16409
- Imane, R., & Siham, H. *Investigating the Use of AI Tools to Enhance Learners' Writing Skills in the EFL Classroom* (Doctoral dissertation, Kasdi Merbah Ouargla University)
- Ftria, T. N. (2025). The Use of Ai Paraphrasing Tools in Academic Writing: A Qualitative Case Study. *International Journal of English Learning and Applied Linguistics (IJELAL)*, 5(2), 90-10
- Han, Y., Zhao, S., & Ng, L. L. (2021). How technology tools impact writing performance, lexical complexity, and perceived self-regulated learning strategies in EFL academic writing: A comparative study. *Frontiers in psychology*, 12, 752793
- Hanifah, K., & Pratama, R. C. (2025). EXPLORING ARTIFICIAL INTELLIGENCE WRITING TOOLS (AIWTs) FOR EFL IN ISLAMIC EDUCATION: MERITS, DEMERITS, CHALLENGE AND SOLUTION. *Shibghoh: Prosiding Ilmu Kependidikan UNIDA Gontor*, 3(1)
- Hsiung, P. C., & Hsieh, P. J. (2024). Forty-Hertz audiovisual stimulation does not have a promoting effect on visual threshold and visual spatial memory. *Journal of Vision*, 24(2), 8-
- Karimova, A. (2025). ARTIFICIAL INTELLIGENCE TOOLS IN LANGUAGE EDUCATION: ENHANCING EFL LEARNERS' WRITING SKILLS. *Теоретические аспекты*
- Marzuki, Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, 10(2), 223646
- Najmiah, L., & Al-Anbari, A. H. J. (2025). Narrative Explorations of EFL Learners' Engagement with AI Tools in Developing Writing Proficiency. *DUTIES: Education and Humanities International Journal*, 1(2), 42-62
- Pitukwong, K., & Saraiwang, S. (2024). Exploring the effectiveness of digital writing tools on Thai EFL students' writing. *Contemporary Educational Technology*, 16(3), ep519

<https://doi.org/10.32792/utq/jedh/v16i1>

- Rizkiani, S., Maulana, A., Resmini, S., & Satriani, I. (2024). EXAMINING THE USE OF AI TOOLS IN ACADEMIC WRITING: EFFECTS ON THE CRITICAL THINKING SKILLS OF EFL LEARNERS. *JELA (Journal of English Language Teaching, Literature and Applied Linguistics)*, 6(2), 111-121
- Sharshova, R., Salkhanova, Z., & Maral, A. (2025). The Use of AI Writing Tools in Second Language Learning to Enhance Kazakh IT Students' Academic Writing Skills. In *Forum for Linguistic Studies* (Vol. 7, No. 8, pp. 251-267
- Tajik, A. (2025). Exploring the role of AI-driven dynamic writing platforms in improving EFL learners' writing skills and fostering their motivation
- Zhao, T., Wang, S., Ouyang, C., Chen, M., Liu, C., Zhang, J., & Wang, L. (2024). Artificial intelligence for geoscience: Progress, challenges, and perspectives. *The Innovation*, 5(5)

## Appendix 1

### Questionnaires

1. هي ادوات سهلت الاستخدام والوصول في أي مكان وزمان Grammarly و Quillbot.
2. الميزات التي يوفرها الذكاء الاصطناعي سهلة الفهم للطلاب.
3. مناسبة جدًا لاحتياجات الطلاب في كتابة أبحاثهم باللغة الإنجليزية ادوات الذكاء الصناعي الميزات التي يوفرها.
4. ادوات الذكاء الصناعي، مما سيساعدني على إكمال بحثي الأكاديمي بشكل أسرع أنا سعيد باستخدام.
5. يجعلني أكثر راحة في إجراء بحثي الأكاديمي ادوات الذكاء الصناعي استخدام.
6. على إنتاج كتابات أفضل Grammarly و Quillbot يساعدني.
7. توليد الأفكار لكتابة البحوث الأكاديمية باللغة الإنجليزية ادوات الذكاء الصناعي تسرع.
8. أصبح أكثر نشاطاً في إكمال واجباتي النهائية بفضل استخدام الذكاء الاصطناعي.
9. مهاراتي في الكتابة ادوات الذكاء الصناعي سيُحسن استخدام.
10. من تحسين كفاءة وجودة كتاباتك الأكاديمية باللغة الإنجليزية الذكاء الصناعي يُمكنك استخدام أدوات.
11. على تطوير جودة كتاباتك البحثية الأكاديمية ادوات الذكاء الصناعي يُحَقِّرك استخدام أدوات.
12. أشعر بالقلق إزاء محدودية استخدام.
13. للحفاظ على نشاطهم في كتابة أبحاثي الأكاديمية باللغة الإنجليزية تساعد ادوات الذكاء الصناعي.
14. أن تحل محل التحليل المتعمق والتفكير النقدي بشكل كامل لا يمكن لأدوات الذكاء الصناعي.
15. ادوات الذكاء الصناعي، هل تشعر بالقلق إزاء الاعتماد الكامل على هذه الأدوات واحتمال تراجع الإبداع في مع استخدام الكتابة؟