Iraqi EFL Learners' Use of ChatGPT in Academic Research: A Convergent Parallel Mixed Methods Design

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Abstract

Artificial intelligence is changing the way students write. ChatGPT is one of the most used tools in academic writing. Studies show that students rely on it to save time, improve grammar, and organize ideas. Most research, however, focuses on students outside Iraq. Little is known about how Iraqi EFL learners use ChatGPT in research writing. This study aims to fill that gap. The study had five main objectives. It examined students' perceptions of ChatGPT, how often they use it, and whether use differs by gender, academic level, or prior AI experience. It also explored learners' experiences, benefits, and challenges, and analyzed the effects of ChatGPT on the quality and structure of writing. A convergent parallel mixed methods design was used. Data were collected from 600 undergraduate students at the University of Basrah, College of Education in Qurna, English Department. Quantitative data came from a Likert-scale questionnaire, and qualitative data came from interviews and student-written papers. The two data types were analyzed separately and then combined to provide a full understanding of ChatGPT use. Results show that most students view ChatGPT positively. They use it to improve clarity, grammar, and organization. Differences appeared based on gender and prior experience. Students also reported challenges, including plagiarism risks, over-reliance, inaccurate references, repetitive language, and repeated ideas or structures. ChatGPT improved paper structure but did not always enhance originality or depth. These findings highlight both the benefits and limitations of ChatGPT in academic writing. The study provides insights for teachers and curriculum designers to guide students in using AI responsibly. It shows that ChatGPT can support writing but requires careful use to maintain accuracy, originality, and critical thinking.

استخدام متعلّمي اللغة الإنجليزية بوصفها لغة أجنبية في العراق لبرنامج شات جي بي تي في البحث الأكاديمي: دراسة بمنهجٍ مختلطٍ متوازٍ متقارب

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المستخلص

إنَّ الذكاء الاصطناعي يُحدِثُ تغيراً جوهرياً في طرائق كتابة الطلّاب. ويُعَدُّ شات جي بي تي واحداً من أكثر الأدوات استخداماً في الكتابة الأكاديمية. وتُشير الدراسات إلى أنّ الطلّاب يعتمدون عليه لتوفير الوقت، وتحسين القواعد النحوية، وتنظيم الأفكار. غير أنّ معظم الأبحاث تتركّز على طلّاب خارج العراق، بينما يظلّ القليل معروفاً عن كيفية استخدام متعلّمي اللغة الإنكليزية بوصفها لغة أجنبية في العراق لهذه الأداة في الكتابة البحثية. ومن هنا جاءت هذه الدراسة لسدِّ تلك الفجوة. وقد سعت الدراسة إلى تحقيق خمسة أهداف رئيسة؛ إذ تناولت تصوّرات الطلّاب تجاه شات جي بي تي، ومدى تكرار استخدامهم له، والفروق المحتملة في الاستخدام بحسب الجنس، أو المستوى الأكاديمي، أو الخبرة السابقة في التعامل مع الذكاء الاصطناعي. كما استكشفت تجارب المتعلّمين، والفوائد التي يجنونها، والتحديات التي يواجهونها، فضلاً عن تحليل أثر ChatGPT في جودة الكتابة وبنيتها. اعتمدت الدراسة على تصميم ذي منهج مختلط متوازٍ متقارب .(Convergent Parallel Mixed Methods Design)وقد جُمعت البيانات من (٦٠٠) طالبٍ جامعي في جامعة البصرة/كلية التربية في القرنة/قسم اللغة الإنكليزية. وتنوّعت أدوات جمع البيانات بين الاستبانة ذات المقياس الخماسي (Likert-Scale) للحصول على البيانات الكمية، والمقابلات والأوراق البحثية التي كتبها الطلّاب للحصول على البيانات النوعية. عُولجت كلٌّ من البيانات الكمية والنوعية على نحوٍ مستقل، ثم جُمعت لتحقيق فهم شامل لطرائق استخدام شات جي بي تي. وأظهرت النتائج أنّ غالبية الطلّاب ينظرون إلى شات جي بي تي نظرةً إيجابية، ويستعينون به لتحسين وضوح الكتابة، ودقّة القواعد، وتنظيم البنية. كما كشفت النتائج عن وجود فروق مرتبطة بالجنس والخبرة السابقة. غير أنّ الطلّاب أشاروا أيضاً إلى تحديات بارزة، من أبرزها: مخاطر الانتحال، والاعتماد المفرط، والمراجع غير الدقيقة، وتكرار العبارات والأفكار أو البُنى. وقد أسهم شات جي بي تي في تحسين هيكل الورقة البحثية، إلّا أنّه لم يُحسّن دائماً من الأصالة أو العمق الفكري. وتُبرز هذه النتائج المنافع والحدود في آنٍ واحد لاستخدام شات جي بي تي في الكتابة الأكاديمية. كما توفّر الدراسة رؤى مهمّة للمدرّسين ومصمّمي المناهج من أجل توجيه الطلّاب نحو الاستخدام المسؤول للذكاء الاصطناعي. وتؤكّد أن شات جي بي تي يمكن أن يكون داعماً لعملية الكتابة، لكنّه يتطلّب حُسن توظيفٍ لضمان الدقّة، والأصالة، وتنمية التفكير النقدي.

كلمات مفتاحية: الكتابة الأكاديمية، الذكاء الاصطناعي، شات جي بي تي، المنهج المختلط المتوازي المتقارب، التكنولوجيا التعليمية، معدّل الاستخدام، الفروق بين الجنسين، متعلّمو اللغة الإنكليزية في العراق، الأوراق البحثية، تصوّرات الطلّاب، جودة الكتابة.

Introduction

Artificial intelligence is now a major part of education and research writing. ChatGPT is one of the most common tools students use. ChatGPT brings both benefits and risks for students. Learners in many countries turn to it to save time, improve grammar, and make their writing clearer. Studies show that it helps with generating ideas, drafting essays, and reducing stress (Afzal et al., 2025; Mahapatra, 2024; Song & Song, 2023). At the same time, there are concerns about plagiarism, weak references, and overuse. Some research warns that students may depend on it too much or accept incorrect information (Yuan & Sawaengdist, 2024; Costa et al., 2024).

Most of the current research focuses on students in China, Indonesia, Pakistan, or Spain. Few studies look at how Iraqi EFL learners use ChatGPT. Very little is known about their opinions, their frequency of use, or the problems they face. Differences such as gender, academic level, and prior experience with AI are also not well studied (Bouzar et al., 2024; Nguyen et al., 2025; Kayaalp et al., 2024). To fill this gap, the present study investigates the Iraqi EFL learners' experiences with ChatGPT in research writing.

Accordingly, the present study aims to:

1. Find out what Iraqi EFL learners think about ChatGPT in research writing.
2. Examine how often learners use ChatGPT in their research papers.
3. Check if views or use of ChatGPT differ based on gender, academic level, or prior experience.
4. Understand learners' experiences, challenges, and benefits with ChatGPT.
5. Analyze how ChatGPT affects the quality and structure of students' research papers.

This paper consists of several sections. The first section reviews studies on students' perception of ChatGPT. It also looks at how often students use ChatGPT in academic writing. Differences in use and perception by gender, academic level, and prior experience are discussed. The framework examines learners' experiences, challenges, and benefits with ChatGPT. It also considers the effects of ChatGPT on the quality and structure of research papers. After this comes the

methods section. Then the results are presented and discussed. Finally, the paper ends with a conclusion and recommendations.

REVIEW OF THE LITERATURE

Students' Perception of ChatGPT

Artificial intelligence has changed the way students write. ChatGPT is one of the most common tools they use in academic work. Many studies have tried to understand how students see this tool. Some focus on whether they like it or not. Others look at how it helps them write better or faster. Students' opinions are important because they show how ChatGPT is being used in real classrooms.

Afzal et al. (2025) studied university students in Pakistan. They found that students had a positive view of ChatGPT in academic writing. Many students said it improved their productivity. They also felt it made them more creative and reduced stress. Some students believed it helped them overcome language barriers. At the same time, they worried about problems like inaccurate citations and weak institutional policies. They also raised concerns about ethics and responsible use.

In another context, Mahapatra (2024) studied ESL students. His research showed that students responded positively to ChatGPT as a feedback tool. They felt the tool gave them useful corrections. They also believed it helped them improve clarity in their writing. Students expressed satisfaction with the way ChatGPT supported their learning. This shows that they valued the feedback process as much as the writing support. Adopting a similar position, Song and Song (2023) found that ChatGPT increased motivation. Chinese EFL students said they felt more confident when they wrote with its support. They used ChatGPT to improve their vocabulary and sentence structures. They also reported less stress while drafting.

Apriani et al. (2025) presented further evidence from Indonesia. They compared students who used ChatGPT with those who did not. The results showed that students with ChatGPT scored higher in writing. They reported that ChatGPT helped them generate ideas. It also guided them in organizing their essays. Students believed ChatGPT directly supported their learning and improved their performance.

This result conflicts with Werdiningsih et al. (2024) study on Indonesian students. Their study showed that students valued ChatGPT

for vocabulary and content suggestions. They found it useful in overcoming gaps in knowledge. However, students highlighted the need for human judgment. They believed that ChatGPT could not replace a teacher or personal effort.

This view is supported by other studies (Yuan & Sawaengdist, 2024; Artiana & Fakhrurriana, 2024; Baldrich & Domínguez-Oller, 2024). For example, Yuan and Sawaengdist (2024) reported that students liked ChatGPT for its speed and efficiency. Many said it made their writing process easier. However, the issues of plagiarism and academic honesty were acknowledged. They felt ChatGPT should not replace their own ideas. They also questioned whether all of its information was reliable. This is consistent with Baldrich and Domínguez-Oller (2024). They studied student perceptions in Spain. They warned that the tool was not enough by itself. They stressed the need for strong critical thinking and ethical judgment. Without these skills, ChatGPT could cause problems in writing quality. Other challenges were raised by Artiana and Fakhrurriana (2024). They investigated Indonesian undergraduates. They asked students how they felt about using ChatGPT for assignments. Most students were worried about authenticity and the risk of over-dependence.

Bašić et al. (2023) offered a different perspective. Their study tested essays written with and without ChatGPT. The results showed little difference in performance between the groups. ChatGPT did not automatically lead to better essays. Students who already had strong skills did not benefit much more.

Students' views of ChatGPT affect how they use it. Some students see it as a helpful tool. Others think it can only support their own effort. These views change how often they use it. The next section looks at these usage patterns in more detail.

Frequency of ChatGPT Use in Academic Writing

Students use ChatGPT for different reasons in academic writing. However, the frequently of its usage can affect their writing habits and skills. Considering these effects shows the way students approach ChatGPT differently.

Many researchers have studied ChatGPT usage patterns among students. They have also studied the types of tasks students perform. For

example, Alkaissi and McFarlane (2023) looked at scientific writing. They found that students did not always use ChatGPT for whole essays. Instead, they often used it for smaller tasks like organizing references or checking flow. Similar findings came from Alkamel and Alwagieh (2024) in Yemen. Their study showed that students often used ChatGPT for grammar, proofreading, and fluency. Many included it in their daily practice.

A broadly similar point has also recently been made by Dewi (2024). Many students rely on it to generate ideas and fix writing problems. Some said it helped with writer's block. Others used it to make the writing process easier. Minor technical problems did not stop students from engaging with it. Building on this, Xu and Jumaat (2024) showed that Chinese EFL students also turned to ChatGPT regularly. Planning essays, making outlines, and improving drafts are among the many applications. Many relied on it to understand research trends and organize literature reviews.

However, several studies reported issues caused by excessive use of ChatGPT. This concern is addressed by Khampusaen's (2025) study. While students felt more confident with practice, they also worried about depending too much on ChatGPT. They wrote essays with and without ChatGPT. The results showed that they used ChatGPT consistently over time. It became part of their regular drafting and revising.

Similarly, Janković and Kulić (2025) studied students in Serbia and Bosnia and Herzegovina. They found that students used ChatGPT at different levels. Some relied on it heavily, while others used it only for small tasks. Many students did not fully understand its limits. They sometimes struggled to separate their own ideas from AI-generated text. At the same time, they worried about plagiarism and face citation problems.

Looking at how often students use ChatGPT raises another important question: who uses it more and why. Usage is not the same for every student. Differences appear depending on personal and academic factors. Individual characteristics influence AI use in academic writing. In addition, it affects how students plan, draft, and revise their work.

Differences by Gender, Academic Level, Prior Experience

Gender, academic level, and prior experience influence how students use ChatGPT. Each factor changes the way students approach writing tasks and interact with AI. Gender can affect priorities, such as focusing on accuracy, ethics, or efficiency. Academic level determines the complexity of tasks and the depth of critical thinking required. Prior experience in writing shapes whether students use ChatGPT for editing, idea generation, or drafting. These differences show that AI offers many benefits, like improving clarity and providing feedback. At the same time, they reveal risks, such as over-reliance, reduced originality, or shallow engagement (Ho et al., 2025; Niloy et al., 2024; Al-Mamary et al., 2024).

Gender affects how students use ChatGPT. Research shows that female students often approach it carefully. They pay close attention to accuracy and follow ethical guidelines. For example, they may double-check suggestions and correct mistakes before including them in their work. Male students, in contrast, focus more on speed and experimentation. They may try out new ideas quickly or explore different ways of phrasing sentences (Bouzar et al., 2024). These differences may come from variations in confidence, familiarity with technology, or attitudes toward risk.

Academic level further shapes how students use ChatGPT. Postgraduate students face complex writing tasks, such as theses, research articles, and detailed reports. These tasks demand careful planning, critical thinking, and precise language. As a result, postgraduates often use ChatGPT to organize ideas, clarify arguments, refine tone, and check grammar or style. Undergraduates, by contrast, usually work on simpler assignments, such as drafting essays, summarizing readings, or paraphrasing text (Nguyen et al., 2025). They may focus more on completing tasks efficiently rather than developing complex arguments. The difference in task complexity means that postgraduate students must approach ChatGPT more critically.

Prior experience in academic writing plays a significant role in how students use ChatGPT. Students with strong writing skills often use the tool to edit, polish, or refine their own work. They focus on improving clarity, style, and structure while keeping their original ideas intact. Less

experienced students, however, may depend on ChatGPT to generate ideas or complete basic writing tasks (Kayaalp et al., 2024). This reliance can make them less confident in their own abilities and slow the development of independent writing skills.

Experiences, Challenges, Benefits of Using ChatGPT in Academic Writing

Many students and teachers now turn to ChatGPT for writing. Students use it to collect ideas, fix grammar, and make their sentences clearer. Teachers try it out for classroom discussions and to test how well AI writing holds up. Research shows that students in communication and business courses ask ChatGPT for answers to theory questions and to generate ideas for practical tasks (AlAfnan et al., 2023). English as a Foreign Language learners use it to build vocabulary and improve sentence flow (Werdiningsih et al., 2024). Some researchers describe their personal experience with ChatGPT as a way to polish and organize drafts (Buruk, 2023).

The growth of AI writing also raises concerns. Plagiarism is one of the main risks, since students might depend on the tool to complete most of their work. When that happens, critical thinking and problem-solving skills can weaken (Costa et al., 2024). Teachers may also struggle to judge how much students are actually learning if too much work comes from automation (AlAfnan et al., 2023). Accuracy is another problem. ChatGPT can generate false details, fake references, or answers that sound convincing but are not reliable (Curtis, 2023). For language learners, it sometimes suggests phrases that feel out of place in academic or cultural contexts (Werdiningsih et al., 2024).

Transparency has become a pressing issue. Some scholars argue that writers should explain when and how they relied on ChatGPT in their work (Buruk, 2023). This kind of disclosure helps maintain honesty in research and publishing. Journals are also introducing new rules, asking authors to declare the role of AI in their writing and to meet plagiarism checks (Curtis, 2023).

Despite these risks, the benefits are clear. Students save time when they can organize ideas and prepare drafts quickly (Sudrajad et al., 2024). Non-native speakers gain support in grammar, word choice, and sentence structure (Costa et al., 2024). Researchers rely on ChatGPT to

speed up literature reviews, data analysis, and manuscript preparation, which shortens the writing and publishing process (Ariyaratne et al., 2023). Teachers also use it as a springboard for critical thinking, asking students to analyze and question AI-generated responses (Datskiv et al., 2024).

Researchers suggest strategies to guide responsible use. AlAfnan et al. (2023) recommend avoiding simple take-home questions that only require short answers. They argue for case-based tasks that push students to use creativity and critical thinking. Costa et al. (2024) propose the OTHA framework, which stands for Openness, Transparency, Honesty, and Accountability. This approach calls for clear disclosure of AI support, training for users, and equal access to the technology.

Looking ahead, ChatGPT is likely to expand its role in both classrooms and research. Studies suggest it can help students plan, draft, and revise their work more effectively (Xu & Jumaat, 2024). Researchers see it as a way to organize data and point out knowledge gaps, making collaboration and publication faster (Ariyaratne et al., 2023). Universities, however, need to offer training, guidelines, and monitoring to reduce misuse. With careful guidance, ChatGPT can support creativity, productivity, and new forms of cooperation between humans and AI.

Effects on Quality and Structure

ChatGPT has raised many questions about its impact on academic writing. Studies show that it can create sentences that are clear and grammatically correct (Albuhairy et al., 2023). The tool also produces well-structured paragraphs because of its large training data. However, this does not mean the writing has depth or reliable information. Many texts lack originality and do not reflect professional academic standards. Because of this, experts suggest using ChatGPT with caution.

Students also report mixed experiences with ChatGPT. Research by Al-Sofi (2024) shows that many students believe it improves their grammar and clarity. It can also help them find better words and organize ideas. At the same time, problems such as plagiarism, overuse, and false information remain common. These issues can lower the quality of academic skills if students depend on the tool too much.

Other studies compare ChatGPT with traditional databases. Garg et al. (2024) explain that tools like Scopus and Web of Science are still far more accurate. While ChatGPT offers quick summaries, it often misses key details. This means the writing may look smooth but lack strong evidence. The result is a gap between form and content. For academic work, both are necessary, and relying only on AI can weaken quality.

ChatGPT also seems to affect writing style. Geng and Trotta (2024) found changes in word use across many academic abstracts after the tool was released. Computer science fields showed the greatest use, while mathematics showed the least. This shift shows how AI can shape the way ideas are expressed. On one hand, it may make writing clearer. On the other, it may reduce diversity and creativity in language.

The effects also reach academic publishing. Homolak (2023) found that AI detection tools gave mixed results when checking abstracts. This shows that it is hard to know which texts were created with ChatGPT. Lingard (2023) adds that journals now ask writers to report when AI is used. These rules are important for protecting trust in academic work. Without them, writing quality and ethics may both suffer.

Some research highlights the positive side of AI for structure. Imran and Almusharraf (2023) show that ChatGPT can reduce stress and help organize content. Khalifa and Albadawy (2024) agree, noting that it helps with planning, editing, and formatting. These tools make writing faster and easier. Even so, both studies stress that AI should support, not replace, human thinking. Balance is needed to keep both quality and originality.

Finally, large reviews confirm both strengths and risks. Liu et al. (2025) found that ChatGPT can save time and improve structure. It also helps writers move past anxiety and start drafts. But problems like plagiarism, bias, and false data remain serious. They suggest stronger rules and better tools to manage these risks.

The existing literature on ChatGPT in academic writing shows several important gaps. Most studies focus on general applications of AI tools, but few examine specific groups of learners. Iraqi EFL students, in particular, have not been studied in detail. There is little information about how often they use ChatGPT or what they think about it. Research rarely considers differences based on gender, academic level, or previous

experience with AI tools. In addition, students' personal experiences, challenges, and perceived benefits are not well documented. The effect of ChatGPT on the quality and structure of research papers has also not been fully analyzed. The table below summarizes these gaps and links them to the research questions guiding the current study.

Table 1: Research Gaps and Their Corresponding Research Questions

No.	Identified Gap	Corresponding Research Question
1	Lack of research on Iraqi EFL learners' perceptions of ChatGPT	RQ1 – What do Iraqi EFL learners think about using ChatGPT in academic research writing?
2	Limited data on frequency and patterns of ChatGPT use	RQ2 – How often do Iraqi EFL learners use ChatGPT when writing research papers?
3	Sparse exploration of demographic differences (gender, academic level, prior AI experience)	RQ3 – Do learners' views or use of ChatGPT differ by gender, academic level, or prior experience with AI tools?
4	Few studies capturing learners' detailed experiences, challenges, and perceived benefits	RQ4 – How do learners describe their experiences, challenges, and benefits when using ChatGPT?
5	Insufficient analysis of ChatGPT's effect on quality, structure, and coherence of research papers	RQ5 – How does using ChatGPT affect the quality and structure of students' research papers?

METHODOLOGY

Research Design

This study followed a convergent parallel mixed methods design. This approach was chosen because it allows the researcher to collect quantitative and qualitative data at the same time, analyze them separately, and then compare the results. The aim was to obtain both numerical trends and detailed explanations about Iraqi EFL learners' use of ChatGPT in academic research writing.

Quantitative data came from a questionnaire with Likert-scale items. This provided statistical information about learners' attitudes, experiences, and perceived benefits or challenges of using ChatGPT.

Qualitative data came from two sources. The first was semi-structured interviews, which allowed participants to explain their views in more detail. The second was an analysis of student-written research papers. These papers gave direct evidence of how ChatGPT appeared in actual academic writing.

Both sets of data were collected during the same period. The quantitative and qualitative data were analyzed separately. The questionnaire responses were summarized with descriptive statistics. The interviews were transcribed and analyzed thematically. The student papers were examined through document analysis to identify patterns and features that could be linked to ChatGPT use.

The final stage involved merging the results from both strands. This step compared learners stated perceptions with the observable evidence in their written work. Points of agreement and disagreement between the two strands were identified. This integration provided a deeper understanding of how ChatGPT is perceived and actually used in academic research writing by Iraqi EFL learners. This revealed where learners' perceptions matched the evidence in their writing and where they differed. These findings gave a clearer view of how ChatGPT is used in academic research. Figure 1 below displays the research design of the current study:

Figure 1: Convergent Parallel Mixed Methods Design
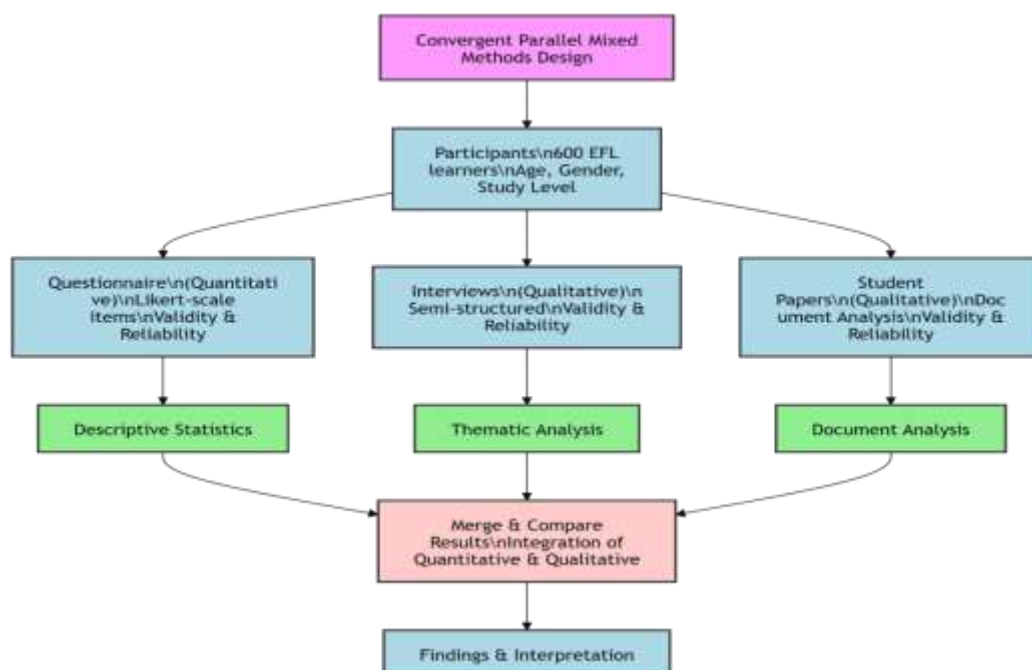
Participants

The participants in this study were EFL learners from the University of Basrah, College of Education–Qurna, English Department. English is not the main language of instruction in these programs. The study included 600 learners.

Participants were selected because they had experience in academic writing and had used ChatGPT or similar AI tools. To be included, they had to have used ChatGPT at least once for academic writing. This ensured that all participants could provide informed opinions about its role in research writing.

The participants ranged in age from 19 to 34 years. Both male and female learners took part, with nearly equal numbers. All were undergraduate students. This diversity in age, gender, and study level provided a broad perspective on how Iraqi EFL learners use ChatGPT in academic writing.

Table 2: Participants' Demographic Information

Variable	Category	Number (n = 600)	Percentage (%)
Age	19–22 years	320	53
	23–26 years	180	30
	27–34 years	100	17
Gender	Male	298	50
	Female	302	50
Study Level	Undergraduate	600	100

Methods of Data Collection

Data for this study were collected using three methods: a questionnaire, interviews, and student-written research papers. These methods were chosen to provide a complete view of how learners use ChatGPT in academic writing.

The questionnaire was designed to gather quantitative data about learners' attitudes, experiences, and perceived benefits or challenges of using ChatGPT. To ensure validity, the questionnaire items were reviewed by experts in TESOL and educational research. A pilot test was conducted with a small group of learners to check clarity and comprehension. Reliability was confirmed by calculating Cronbach's

alpha, which showed high internal consistency (See appendix 2). The questionnaire was then distributed to all 600 participants.

The interviews were semi-structured and conducted with a smaller group of participants. This method allowed learners to explain their experiences in more detail. Validity was ensured by aligning the interview questions with the study's research questions and allowing participants to clarify their responses. Reliability was strengthened by recording all interviews and transcribing them accurately. The transcripts were checked for consistency and coded systematically using thematic analysis.

The student-written research papers were collected to analyze actual writing practices. Document analysis was used to identify patterns and features linked to ChatGPT use. Validity was ensured by using clear coding criteria and reviewing each paper carefully. Reliability was increased by having two independent coders analyze a sample of papers and compare results to ensure agreement.

All data were collected during the same period. Questionnaire responses were analyzed statistically, while interview transcripts and research papers were analyzed qualitatively. Finally, results from all three sources were compared to identify patterns, similarities, and differences in how learners perceived and used ChatGPT in their academic writing.

Triangulation

In this study, triangulation was used to compare evidence from different sources, as explained by Creswell (2012: 259). The sources included Iraqi EFL learners' perspectives from questionnaires, interviews, and their research papers. Methods such as document analysis and interviews were combined to find patterns and themes. This approach helped to study how ChatGPT affects academic writing from different angles. According to Cresswell, triangulation is not only for checking if the data is correct. It also helps to show different sides of the same phenomenon. In this study, it revealed students' experiences and the impact of AI on their writing.

DATA ANALYSIS AND DISCUSSION
ANALYSIS

This section presents the analysis of data from 600 Iraqi EFL learners. It looks at their perceptions, usage patterns, and the impact on writing quality. It also considers their experience with ChatGPT. Differences by gender, academic level, and prior AI use are examined. The analysis includes numbers from the questionnaire and ideas from open-ended responses, interviews, and student research papers. The goal is to give a full picture of how learners use ChatGPT and how it affects their academic writing.

The questionnaire data show that students generally have positive perceptions of ChatGPT. Table 3 displays the descriptive statistics for each section. The mean score for perceptions is 4.3, indicating strong agreement on the usefulness of ChatGPT. Frequency and usage scored 3.9 on average, reflecting moderate engagement with the tool. The impact on writing quality scored 4.1, and experience and future use averaged 4.2, showing that learners feel positively about using ChatGPT and plan to continue using it. Standard deviations suggest some variation among students, reflecting different familiarity levels and comfort with AI tools.

Table 3: Descriptive Statistics of Questionnaire Sections (N = 600)

Section Title	Mean	SD	Min	Max
Perceptions of ChatGPT	4.3	0.6	1	5
Frequency and Usage of ChatGPT	3.9	0.7	1	5
Impact of ChatGPT on Writing Quality	4.1	0.6	1	5
Experience and Future Use of ChatGPT	4.2	0.5	2	5

Differences by gender reveal that female students reported slightly higher scores across all sections. For example, female learners scored 4.4 on perceptions compared to 4.2 for males. Frequency and usage were 4.0 for females versus 3.8 for males, suggesting that female students engage more frequently with ChatGPT. The impact on writing quality and experience also show similar patterns, demonstrating consistent differences in engagement and satisfaction between genders.

Table 4: Section Averages by Gender (N = 600)

Section Title	Male Mean	Female Mean
Perceptions of ChatGPT	4.2	4.4
Frequency and Usage of ChatGPT	3.8	4.0
Impact of ChatGPT on Writing Quality	4.0	4.2
Experience and Future Use of ChatGPT	4.1	4.3

Academic level analysis indicates a positive correlation between experience and engagement with ChatGPT. Senior students scored higher than first- and second-year students in all sections. Third- and fourth-year students had the highest scores. Fourth-year students averaged 4.4 in perceptions. First-year students averaged 4.1.

Table 5: Section Averages by Academic Level (N = 600)

Section Title	1st Year	2nd Year	3rd Year	4th Year
Perceptions of ChatGPT	4.1	4.2	4.3	4.4
Frequency and Usage of ChatGPT	3.7	3.9	4.0	4.1
Impact of ChatGPT on Writing Quality	3.9	4.0	4.1	4.2
Experience and Future Use of ChatGPT	4.0	4.1	4.2	4.3

Prior experience with AI tools strongly affects engagement. Students who had used AI before scored higher in all parts of the study. Their average perception score was 4.4, compared to 3.8 for those who had not used AI before. They also reported using ChatGPT more often. They felt a greater positive impact on their writing. Their general experience with ChatGPT was better.

Table 6: Section Averages by AI Use (N = 600)

Section Title	Used AI: Yes	Used AI: No
Perceptions of ChatGPT	4.4	3.8
Frequency and Usage of ChatGPT	4.2	3.2

Impact of ChatGPT on Writing Quality	4.3	3.6
Experience and Future Use of ChatGPT	4.4	3.7

Correlation analysis shows strong connections between the four sections. Students with higher perceptions also used ChatGPT more often. They reported greater improvement in their writing. They also showed higher satisfaction with ChatGPT. Engagement, perceived impact, and satisfaction appear as related but distinct aspects of ChatGPT use.

Table 7: Correlation Matrix Between Sections

Section Title	Perceptions	Frequency & Usage	Impact on Writing Quality	Experience & Future Use
Perceptions of ChatGPT	1.00	0.72	0.75	0.78
Frequency and Usage of ChatGPT	0.72	1.00	0.70	0.73
Impact of ChatGPT on Writing Quality	0.75	0.70	1.00	0.76
Experience and Future Use of ChatGPT	0.78	0.73	0.76	1.00

Analysis of open-ended responses identified three main themes: benefits, challenges, and suggestions. Many students reported that ChatGPT helps organize ideas, expand vocabulary, and write faster. One student said ChatGPT helps organize thoughts and finish writing faster. Another student said it suggests vocabulary they would not think of on their own. However, students also noted challenges. They believe that ChatGPT can give inaccurate answers or responses that do not fit the assignment. Others felt they relied on it too much, which could limit

their own skill development. These points show the tool's limitations and the need for guided use. Following that, students recommended improvements like tutorials and explanations. These would help with research writing and make ChatGPT's suggestions clearer. These insights support the quantitative findings and provide practical guidance for using ChatGPT.

Interview Analysis:

The interview results align closely with the questionnaire data. Quantitative findings indicated positive perceptions and moderate to frequent usage. The interviews confirm these trends and add context. For example, the questionnaire showed frequent use. The interviews explained why students use it, such as for ideas, speed, and vocabulary improvement. The interviews also explained the challenges found in the questionnaire. This gave a richer understanding.

Fifty students were interviewed to understand their experiences with ChatGPT. Looking at the students' own words gives a clearer view of how they see and use ChatGPT in academic research writing. Many students shared strong positive opinions about ChatGPT. The interviews with the Iraqi EFL learners showed different experiences with using ChatGPT for academic writing. Most students first heard about ChatGPT from friends, social media, or professors. One said, "I learned about ChatGPT through friends' recommendations. I had a report and couldn't find clear answers, so ChatGPT helped me generate ideas." Another explained, "I saw many people on social media using this program and calling it 'the savior.'" Many wanted to try it because it saves time, explains concepts clearly, and helps improve writing skills.

ChatGPT can increase efficiency in academic writing. Many said ChatGPT helps them organize ideas, improve vocabulary, and structure papers. One explained, "ChatGPT helps me organize my ideas and write faster." Another said, "It suggests useful vocabulary I wouldn't think of on my own." Several students felt it increased their confidence. One shared, "It had a positive impact; I felt supported and reassured in expressing my ideas." Others focused on saving time. Students reported faster drafting and easier access to information. One explained, "I can complete my drafts faster than before," while another noted, "It provides good answers for everything I needed." Some highlighted its role in

research organization. As one observed, "It taught me how to cite text internally and organize my research correctly."

Accuracy and relevance remain key challenges. Several students reported errors or off-topic suggestions. One remarked, "Sometimes the answers are not accurate or don't match my assignment," and another added, "It gives suggestions that are not relevant to my topic." Over-reliance was also noted. One admitted, "Sometimes I use ChatGPT instead of thinking for myself, which is not ideal." Technical issues, such as slow responses, prompted many to verify information from other sources. One student stated, "I follow up and verify to ensure the accuracy of the information."

Ethical use shapes how students interact with ChatGPT. Many argued that the tool is ethical if it supports idea generation rather than copying. One commented, "Using ChatGPT is ethical if I integrate my own ideas with the information I take from it." Others warned about plagiarism. One explained, "It is not ethical because it provides information from unknown sources. Students must verify and cite sources to remain original." Several students suggested teacher guidance to ensure responsible use. One noted, "Teachers could show us how to use it during research assignments."

Guidance and additional tools could improve ChatGPT use. Students frequently requested tutorials and clear instructions for research writing. One stated, "More guidance on using ChatGPT properly would be useful," and another added, "It should explain why it suggests certain words." Suggestions included grammar correction, vocabulary alternatives, and style analysis. Most students planned to continue using ChatGPT carefully. One concluded, "I plan to continue using it as a supportive tool to improve my writing, but I won't rely on it completely."

Document Analysis

A total of 150 student research papers were examined. The aim was to see how ChatGPT affects academic writing. The analysis looked at writing quality, structure, language use, vocabulary, and referencing. Each paper was reviewed using John Creswell's document analysis guidelines. Patterns, repeated trends, strengths, and weaknesses were noted (Creswell, 2018). The focus was only on the text itself. Student

opinions or outside comments were not included. This gave a clear picture of how AI influences academic writing in practice.

One of the main problems in the papers was repetitive language. Many sentences expressed the same idea with slightly different wording. For example, one paper said, "The results show a clear improvement in students' writing" and then repeated, "There is a clear improvement in how students write." This repetition added no new meaning. Some paragraphs also used the same transition phrases too often, such as "in addition" or "in the same line," which made the writing sound mechanical. In some cases, entire sections repeated ideas that had already been explained earlier in the paper. This happened within a single section and across different sections. For instance, an idea discussed in the introduction often appeared again in the discussion without new analysis. Such repetition reduced clarity and made reading less engaging.

This repetition was not limited to sentences. Vocabulary choices also showed the same pattern. Even when writers varied their language in some areas, certain academic words appeared again and again. Terms like "Subtle," "conversely," and "similarly" often appeared in nearly every paragraph. In one paper, the word "beneficial" was used six times in two short paragraphs to describe different outcomes. This created a monotonous tone. In other cases, synonyms were used to mask repetition, but the meaning stayed the same. Expressions such as "enhances learning," "improves learning," and "supports learning" appeared close together. ChatGPT can provide a broad range of vocabulary, but it can also repeat similar expressions in different forms. Another common weakness was the lack of clear examples. Many papers made broad claims such as "ChatGPT improves students' writing skills" but did not show how. They could have added before-and-after samples of student writing to prove improvement. Some papers stated that "students benefit from AI in organizing ideas" but gave no case study, data, or classroom example to support this. Without examples, the reader has to accept the claim without proof, which makes the point weaker. ChatGPT can produce smooth and clear sentences, but if the writer does not ask for specific examples, the text can stay vague and unsupported.

In some cases, the absence of examples was linked to overly broad claims. Papers sometimes presented sweeping statements without evidence. One stated, "All students prefer AI-generated feedback over teacher feedback," but gave no survey results or interviews to prove it. Another claimed, "AI eliminates all grammatical errors," which is inaccurate and easy to challenge. Such general statements reduce academic credibility. Research writing requires that broad claims be narrowed and supported with reliable data, concrete examples, or scholarly references. ChatGPT can produce sentences that sound persuasive, but it often presents generalizations as facts.

While content issues were common, structural problems also appeared. Some papers followed the standard research paper format, but others mixed sections in ways that caused confusion. For example, some literature reviews included findings that belonged in the results section. One paper began with the methodology before explaining the research problem. Another repeated the same explanation in both the introduction and the conclusion with little change. Even when ChatGPT produced an outline, some writers copied it directly without adjusting it to their study's needs. This created misplaced paragraphs and uneven topic development.

Even in papers with clear structures, repetition still appeared. Some repeated background information in multiple sections. For example, a paper's introduction might describe the benefits of AI in learning, and the discussion section would repeat the same points almost word-for-word. Another paper's conclusion restated not only the findings but also much of the literature review. This added length but not value. ChatGPT can provide neatly organized sections, but it cannot always prevent duplication between them.

The methodology sections revealed another weakness. Several papers described their research methods in vague terms. Some wrote only, "A survey was conducted" without explaining how many people took part, who they were, or what questions they answered. Others simply stated, "Data was analyzed" without mentioning the method, such as thematic analysis or statistical testing. One methodology section contained only three sentences and left out essential details like the timeline, tools, and

process. However, if there are no specific details, readers cannot assess the quality of the research. They also cannot determine its reliability.

Some papers also skipped important methodological steps entirely. One presented interview finding but never explained how participants were chosen. Another claimed to have analyzed "existing research papers" without describing how these papers were selected. In some cases, results were included in the methodology section, making it harder to follow. This often happens when ChatGPT-generated content blends different sections unless the writer edits carefully. Academic readers expect a clear, step-by-step account of the research process. Missing or misplaced details create confusion and reduce trust in the work.

Problems with citations were the most serious. About 80% of the ChatGPT-generated references were incomplete, wrongly formatted, or entirely fabricated. Some listed authors who did not exist or cited books that could not be found. In one case, a paper included a 2021 article from a journal that had stopped publishing in 2018. Such errors damage credibility and require significant corrections. Students who relied only on ChatGPT for references often had to rewrite their bibliographies from scratch.

These findings make it clear that while ChatGPT can help writers organize ideas, expand vocabulary, and create structured content, it also introduces recurring problems. It may write a clean methodology section but leave out important survey details. It may produce a convincing reference list that contains sources that do not exist. Human oversight is necessary at every stage. Therefore, reading their work carefully is a key step in producing accurate and clear writing.

DISCUSSION

This study explored Iraqi EFL learners' perceptions of ChatGPT (RQ1). The results show that learners generally have positive views of the tool. Questionnaire data revealed a high mean score for perceptions. Interviews confirmed that students valued ChatGPT for generating ideas, improving vocabulary, and organizing content. Many said it reduced stress and increased their confidence in writing. These findings agree with Afzal et al. (2025), who found that university students appreciated ChatGPT for creativity and productivity. Mahapatra (2024) also reported

that students liked its feedback. Song and Song (2023) noted that EFL learners felt more motivated and confident.

The results show that the frequency of AI use affects the balance between tool support and students' own effort. Using AI often can make writing faster and easier. However, frequent use may reduce independent thinking if it is not managed carefully. Students need to use AI thoughtfully to continue developing their skills. Mindful use also helps maintain critical thinking (RQ2). Most students reported moderate to frequent use, primarily for drafting, planning, and improving language. They also used it to organize literature reviews and understand research trends. This matches the findings of Dewi (2024) and Xu and Jumaat (2024). They found that frequent use of AI helps students generate ideas and solve writing problems. At the same time, frequent use can lead to over-reliance on the tool. Other research, such as Alkaissi and McFarlane (2023), found that students often use ChatGPT for small tasks. These tasks include checking grammar, improving sentence flow, and organizing content. They rarely rely on it to write complete essays. Sudents use AI as a support tool rather than a full replacement for their own writing.

Differences by gender, academic level, and prior AI experience were also evident (RQ3). Female students reported slightly higher scores in perceptions, usage, and satisfaction with ChatGPT. They engage with the tool more carefully and ethically. Senior students and those with prior AI experience scored higher across all sections. In another words, experience and exposure improve the effective use of AI tools. Similar findings appear in previous research. Bouzar et al. (2024) and Nguyen et al. (2025) found that demographic factors influence how students engage with AI. Kayaalp et al. (2024) emphasized that prior experience shapes both confidence and performance.

Students' experiences, benefits, and challenges were examined through interviews and open-ended responses (RQ4). Participants highlighted faster drafting, improved vocabulary, and better organization as main advantages. Some also mentioned support with research documentation and references. Challenges included inaccurate content, irrelevant suggestions, and over-reliance on AI. Ethical issues, especially plagiarism and responsible use, were often raised. Werdiningsih et al.

(2024) and Yuan and Sawaengdist (2024) also found that learners value AI support but emphasize the need for human supervision.

Papers generally showed clearer sentences, improved structure, and richer vocabulary (RQ5). Repetition, vague claims, inaccurate references, and misplaced methodology sections were frequently observed. Students often used AI-generated content without sufficient revision. Garg et al. (2024) and Curtis (2023) similarly note that AI can create polished writing but cannot ensure accuracy or academic rigor. ChatGPT improves surface-level clarity and organization. It cannot replace critical thinking, careful editing, or verification.

ChatGPT provides clear benefits for Iraqi EFL learners. It helps with organizing ideas, improving vocabulary, and increasing confidence. Its use is influenced by gender, academic level, and prior experience. These factors affect both engagement and effectiveness. Challenges such as over-reliance, ethical concerns, and possible inaccuracies also exist. Careful training, clear guidelines, and ongoing human oversight can help learners use ChatGPT effectively. These measures support academic writing while maintaining integrity (AlAfnan et al., 2023; Costa et al., 2024).

CONCLUSIONS

This study examined Iraqi EFL learners' perceptions of ChatGPT in academic writing. It also looked at how students use the tool. The study aimed to investigate ChatGPT's role in supporting writing. It examined how often students use it. It explored its effects on the quality and structure of research papers. The research considered differences based on gender, academic level, and prior experience with AI tools.

The research showed that students use ChatGPT to improve clarity, expand vocabulary, and organize ideas. Many reported that the tool reduced stress and increased efficiency in drafting and editing. Patterns of use varied, with some students relying heavily on the tool and others using it mainly for feedback or minor corrections. Gender, academic level, prior experience influenced how students used ChatGPT.

ChatGPT can support learning and writing productivity when used responsibly. Students benefit from guidance in structuring ideas, refining language, and building confidence. The tool cannot replace critical

thinking or personal effort. Effective use requires combining AI assistance with independent judgment and reflection.

Students worried about plagiarism. They noticed that using AI text without attribution could break academic rules. They were also concerned about relying too much on ChatGPT. Over-dependence could make it harder to think and write independently. Accuracy of the content was another issue. Sometimes the tool gave incomplete or incorrect information. Ethical use mattered to them. They felt ChatGPT should support their learning, not replace their effort. Verifying information with reliable sources was important. Students assured that guidance from teachers could help them use the tool responsibly.

This study contributes to understanding AI use in EFL education in Iraq. It provides evidence of students' perceptions, usage patterns, and challenges. The research focuses on a context that has not been studied systematically. Demographic differences and prior experience appear to shape how students use AI tools. These insights can inform educational strategies and institutional policies to support responsible integration of AI in academic settings.

Several limitations should be noted. The sample was restricted to a specific group of students, which may limit generalizability. Relying on self-reported data introduces the possibility of bias. The study did not examine the long-term effects of ChatGPT use. Nevertheless, the findings indicate that students can benefit from AI-assisted writing when proper guidance is provided.

Future research should examine the long-term impact of ChatGPT on academic skills and writing performance. Studies with larger and more diverse samples could improve generalizability and allow cross-national comparisons. Research could also explore the effects of AI tools on creativity, independent thinking, and problem-solving. Such studies would help educators develop strategies that maximize benefits and reduce potential risks.

The findings have implications for teaching and policy. Training programs can help students understand ethical and effective ways to use ChatGPT. Institutions can provide clear rules for AI-assisted writing. Practices that combine tool use with independent effort can improve

productivity, clarity, and confidence. They can also help maintain originality and academic integrity.

REFERENCES

Afzal, M., Arshad, N., & Shaheen, A. (2025). ChatGPT and the Future of Academic Writing: Enhancing Productivity and Creativity. *Journal of Engineering and Computational Intelligence Review*, *3*(1), 1-11. https://jecir.com/index.php/jecir/article/view/4

AlAfnan, M. A., Dishari, S., Jovic, M., & Lomidze, K. (2023). Chatgpt as an educational tool: Opportunities, challenges, and recommendations for communication, business writing, and composition courses. *Journal of Artificial Intelligence and Technology*, *3*(2), 60-68. https://doi.org/10.37965/jait.2023.0184

Albuhairy, M. M., Al-Garaady, J., & Alblwi, A. (2023). A proposed framework for human-like language processing of ChatGPT in academic writing. *International Journal of Emerging Technologies in Learning (iJET)*, *18*(14). https://ssrn.com/abstract=4527277

Alkaissi, H., & McFarlane, S. I. (2023). Artificial hallucinations in ChatGPT: implications in scientific writing. *Cureus*, *15*(2). https://doi.org/10.7759/cureus.35179

Alkamel, M. A. A., & Alwagieh, N. A. S. (2024). Utilizing an adaptable artificial intelligence writing tool (ChatGPT) to enhance academic writing skills among Yemeni university EFL students. *Social Sciences & Humanities Open*, *10*, 101095. https://doi.org/10.1016/j.ssaho.2024.101095

Al-Mamary, Y. H., Alfalah, A. A., Alshammari, M. M., & Abubakar, A. A. (2024). Exploring factors influencing university students' intentions to use ChatGPT: analysing task-technology fit theory to enhance behavioural intentions in higher education. *Future Business Journal*, *10*(1), 119.

Al-Sofi, B. B. M. A. (2024). Artificial intelligence-powered tools and academic writing: to use or not to use ChatGPT. *Saudi Journal of Language Studies*, *4*(3), 145-161. https://doi.org/10.1108/SJLS-06-2024-0029

Apriani, E., Daulay, S. H., Aprilia, F., Marzuki, A. G., Warsah, I., & Supardan, D. (2025). A Mixed-Method Study on the Effectiveness of Using ChatGPT in Academic Writing and Students' Perceived Experiences. *Journal of Language and Education*, *11*(1 (41)), 26-45. https://doi.org/10.17323/jle.2025.17913

Ariyaratne, S., Iyengar, K. P., & Botchu, R. (2023). Will collaboratively publishing with ChatGPT drive academic writing in the future? *British Journal of Surgery*, *110*(9), 1213-1214. https://doi.org/10.1093/bjs/znad198

Artiana, N., & Fakhrurriana, R. (2024). EFL UNDERGRADUATE STUDENTS'PERSPECTIVE ON USING AI-BASED CHATGPT IN ACADEMIC WRITING. *Language and Education Journal*, *9*(1), 1-11. https://doi.org/10.52237/bddgzs33

Baldrich, D. K., & Celia Domínguez-Oller, J. (2024). The use of ChatGPT in academic writing: a case study in Education. *Pixel-Bit, Revista de Medios y Educacion*, (71). 10.12795/pixelbit.103527

Bašić, Ž., Banovac, A., Kružić, I. et al. ChatGPT-3.5 as writing assistance in students' essays. Humanit Soc Sci Commun 10, 750 (2023). https://doi.org/10.1057/s41599-023-02269-7

Bouzar, A., EL Idrissi, K., & Ghourdou, T. (2024). ChatGPT and academic writing self-efficacy: Unveiling correlations and technological dependency among postgraduate

students. *Arab World English Journal (AWEJ) Special Issue on ChatGPT*. DOI: https://dx.doi.org/10.24093/awej/ChatGPT.15

Buruk, O. O. (2023, October). Academic writing with GPT-3.5 (ChatGPT): reflections on practices, efficacy and transparency. In *Proceedings of the 26th International Academic Mindtrek Conference* (pp. 144-153). https://doi.org/10.1145/3616961.3616992

Costa, K., Mfolo, L. N., & Ntsobi, M. P. (2024). Challenges, benefits and recommendations for using generative artificial intelligence in academic writing–a case of ChatGPT. *Medicon Engineering Themes*, *7*(4), 03-38. https://doi.org/10.31222/osf.io/7hr5v

Creswell, J. W. (2012). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. United Kingdom: Addison Wesley.

Creswell, J. W., Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. United Kingdom: SAGE Publications.

Curtis, N. (2023). To ChatGPT or not to ChatGPT? The impact of artificial intelligence on academic publishing. *The Pediatric infectious disease journal*, *42*(4), 275. *DOI:* 10.1097/INF.0000000000003852.

Datskiv, O., Zadorozhna, I., & Shon, O. (2024). Developing Future Teachers' Academic Writing and Critical Thinking Skills Using ChatGPT. *International Journal of Emerging Technologies in Learning*, *19*(7). 10.3991/ijet.v19i07.49935.

Dewi, F. (2024). The inception of ideas: how students use chatgpt for academic writing. Jurnal Sosioteknologi, 23(2). https://doi.org/10.5614/sostek.itbj.2024.23.2.10

Garg, S., Ahmad, A., & Madsen, D. Ø. (2024). Academic writing in the age of AI: Comparing the reliability of ChatGPT and Bard with Scopus and Web of Science. *Journal of Innovation & Knowledge*, *9*(4), 100563. https://doi.org/10.1016/j.jik.2024.100563

Geng, M., & Trotta, R. (2024). Is ChatGPT Transforming Academics' Writing Style?. *arXiv preprint arXiv:2404.08627*. https://doi.org/10.48550/arXiv.2404.08627

Ho, J. Q., Hartanto, A., Koh, A., & Majeed, N. M. (2025). Gender biases within Artificial Intelligence and ChatGPT: Evidence, sources of biases and solutions. *Computers in Human Behavior: Artificial Humans*, 100145. https://doi.org/10.1016/j.chbah.2025.100145

Homolak, J. (2023). Exploring the adoption of ChatGPT in academic publishing: insights and lessons for scientific writing. *Croatian Medical Journal*, *64*(3), 205-207. https://doi.org/10.3325/cmj.2023.64.205

Imran, M., & Almusharraf, N. (2023). Analyzing the role of ChatGPT as a writing assistant at higher education level: A systematic review of the literature. *Contemporary Educational Technology*, *15*(4), ep464. https://doi.org/10.30935/cedtech/13605

Janković, A., & Kulić, D. (2025). Use And Misuse of ChatGPT in Academic Writing Among the English Language Students. *Information Technologies and Learning Tools*, *105*(1), 178. DOI: 10.33407/itlt.v105i1.5955

Kayaalp, M. E., Ollivier, M., Winkler, P., Dahmen, J., Musahl, V., Hirschmann, M., & Karlsson, J. (2024). Embrace responsible ChatGPT usage to overcome language barriers in academic writing. *Knee Surgery, Sports Traumatology, Arthroscopy*, *32*(1), 5-9. https://dx.doi.org/10.1002/ksa.12014

Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. *Computer Methods and Programs in Biomedicine Update*, *5*, 100145. https://doi.org/10.1016/j.cmpbup.2024.100145

Khampusaen, D. (2025). The Impact of ChatGPT on Academic Writing Skills and Knowledge: An Investigation of Its Use in Argumentative Essays. LEARN Journal: Language Education and Acquisition Research Network, 18(1), 963-988. https://doi.org/10.70730/PGCQ9242

Kobak, D., González-Márquez, R., Horvát, E. Á., & Lause, J. (2024). Delving into ChatGPT usage in academic writing through excess vocabulary. *arXiv preprint arXiv:2406.07016*. https://doi.org/10.48550/arXiv.2406.07016

Lingard, L. (2023). Writing with ChatGPT: An illustration of its capacity, limitations & implications for academic writers. *Perspectives on medical education*, *12*(1), 261. doi: 10.5334/pme.1072. PMID: 37397181; PMCID: PMC10312253.

Liu, Y., Kong, W., & Merve, K. (2025). ChatGPT applications in academic writing: a review of potential, limitations, and ethical challenges. *Arquivos brasileiros de oftalmologia*, *88*(3), e2024-0269. https://doi.org/10.5935/0004-2749.2024-0269

Mahapatra, S. (2024). Impact of ChatGPT on ESL students' academic writing skills: A mixed methods intervention study. *Smart Learning Environments*, *11*(1), 9. https://doi.org/10.1186/s40561-024-00295-9

Nguyen, T. Y. P., Nguyen, N. T., & Phan, N. K. H. (2025). The challenges of applying ChatGPT in the academic writing of postgraduate students in English major at IUH. *International Journal of AI in Language Education*, *2*(1), 20-37. https://doi.org/10.54855/ijaile.25212

Niloy, A. C., Bari, M. A., Sultana, J., Chowdhury, R., Raisa, F. M., Islam, A., ... & Hossen, M. A. (2024). Why do students use ChatGPT? Answering through a triangulation approach. *Computers and Education: Artificial Intelligence*, *6*, 100208. https://doi.org/10.1016/j.caeai.2024.100208

Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in psychology*, *14*, 1260843. https://doi.org/10.3389/fpsyg.2023.1260843

Sudrajad, W., Fikri, M. H., & Putra, R. P. B. (2024). Help Me Chatgpt! What Ways does Chatgpt Influence Students 'productivity and Creativity in English Academic Writing?. *Educatum: Scientific Journal of Education*, *2*(2), 48-57. https://doi.org/10.59165/educatum.v2i2.65

Werdiningsih, I., Marzuki, & Rusdin, D. (2024). Balancing AI and authenticity: EFL students' experiences with ChatGPT in academic writing. *Cogent Arts & Humanities*, *11*(1), 2392388. https://doi.org/10.1080/23311983.2024.2392388

Xu, T., & Jumaat, N. F. (2024). ChatGPT-Empowered Writing Strategies in EFL Students' Academic Writing: Calibre, Challenges and Chances. *International Journal of Interactive Mobile Technologies*, *18*(15). 10.3991/ijim.v18i15.49219

Yuan, Y., Li, H., & Sawaengdist, A. (2024). The impact of ChatGPT on learners in English academic writing: Opportunities and challenges in education. *Language Learning in Higher Education*, *14*(1), 41-56. https://doi.org/10.1515/cercles-2023-0006

APPENDENCES

Appendix 1: Questionnaire on the Use of ChatGPT in Academic Research Writing

Dear participants,

Thank you for taking part in this study. Your participation is completely voluntary. All information you provide will remain confidential and will be used only for research purposes. Your identity will not be recorded, and no personal information will be linked to your responses. You may skip any question you do not wish to answer. By completing this questionnaire, you agree to participate in this study with the assurance that your responses will remain anonymous.

Instructions: Please answer all questions honestly. For the multiple-choice questions, select the option that best applies. For the Likert-scale questions, choose a number from 1 to 5 (1 = Strongly Disagree, 2=Disagree, 3=neutral, 4= Agree, 5 = Strongly Agree).

Section 1: Demographic Information

1. Age: _____
2. Gender: ☐ Male ☐ Female
3. Academic Level: ☐ 1st Year ☐ 2nd Year ☐ 3rd Year ☐ 4th Year
4. Have you used AI tools like ChatGPT before? ☐ Yes ☐ No

Section 2: Perceptions of ChatGPT in Academic Writing (

No.	Statements	1	2	3	4	5
1	I believe ChatGPT can help me improve my research writing.					
2	ChatGPT makes academic writing easier.					
3	Using ChatGPT helps me organize my ideas more clearly.					
4	I trust ChatGPT to give correct and useful information.					
5	ChatGPT can replace some parts of my research writing process.					
6	I feel confident using ChatGPT in my research writing.					
7	What do you like most about using ChatGPT in your academic writing?					
8	What concerns or problems do you face when using ChatGPT?					
9	I believe ChatGPT can help me improve my research writing.					

Section 3: Frequency and Usage

No.	Statements	1	2	3	4	5
1	I use ChatGPT often when writing research papers.					
2	I use ChatGPT mainly for finding ideas or topics.					
3	I use ChatGPT mainly for checking grammar and sentence structure.					
4	I use ChatGPT mainly for generating references or citations.					
5	I use ChatGPT for editing and improving my draft papers.					
How do you usually use ChatGPT in your research writing? Give examples if possible.						

Section 4: Impact on Writing Quality

No.	Statements	1	2	3	4	5
1	ChatGPT helps me improve the clarity of my writing.					
2	ChatGPT helps me organize my research papers better.					
3	Using ChatGPT improves my writing speed.					

4	ChatGPT sometimes produces incorrect information.					
5	Using ChatGPT helps me learn new academic vocabulary.					
In what ways has ChatGPT improved or changed your research writing?						
What do you like most about using ChatGPT in your academic writing?						
Do you think relying on ChatGPT has any negative effect on your writing skills? Explain.						

Section 5: Experience and Future Use

No.	Statements	1	2	3	4	5
1	I would like to use ChatGPT for future academic writing tasks.					
2	I recommend other students to use ChatGPT in their research writing.					
3	Using ChatGPT has made my research writing more enjoyable.					
4	I would like training or guidance on how to use ChatGPT more effectively.					
How would you describe your experience with ChatGPT in research writing?						
What suggestions do you have to make ChatGPT more helpful for students?						

Appendix 2: A Summary of Questionnaire Validity and Reliability

Section	No. of Items	I-CVI	S-CVI	Cronbach's Alpha (α)	SD
Section 2: Perceptions of ChatGPT	6	0.92	0.92	0.88	1.1
Section 3: Frequency and Usage	5	0.90	0.90	0.85	1.2
Section 4: Impact on Writing Quality	5	0.91	0.91	0.86	1.1
Section 5: Experience & Future Use	4	0.93	0.93	0.87	1.1
Whole Questionnaire	20	0.915	0.915	0.87	1.1

Appendix 3: Interview Questions for Iraqi EFL Learners on ChatGPT Use
The following semi-structured interview questions aim to explore students' experiences, perceptions, and challenges while using ChatGPT for academic writing.
1. Can you describe how you use ChatGPT when writing your research papers?
2. What do you find most helpful about using ChatGPT?
3. Are there any challenges or difficulties you face when using ChatGPT?
4. How does ChatGPT affect your writing style, vocabulary, and organization of ideas?
5. Have you encountered any issues with references or sources suggested by ChatGPT?
6. Do you feel ChatGPT improves your confidence in academic writing? How?
7. How often do you use ChatGPT, and for what specific purposes?
8. How do you make sure that the information and suggestions from ChatGPT are accurate?
9. In your opinion, what improvements could make ChatGPT more useful for students like you?
10. Is there anything else you would like to share about your experience with ChatGPT in academic writing?

Appendix 4 Consent Form for Participation in Research

Study Title: **Iraqi EFL Learners' Use of ChatGPT in Academic Research: A Convergent Parallel Mixed Methods Design**

Researcher: Batool Abdul-Mohsin Miri

Institution: University of Basrah/college of Education in Qurna/English Department.

Purpose of the Study:

This study is about students' perceptions of ChatGPT, how often they use it, and whether use differs by gender, academic level, or prior AI experience. It also explored learners' experiences, benefits, and challenges, and analyzed the effects of ChatGPT on the quality and structure of writing.

What You Will Do:

- Fill out a short questionnaire about your experiences and opinions.

- Take part in a short interview. The interview may be recorded.

Your Choice:

Participation is voluntary. You can skip any question. You can stop at any time.

Privacy:

Your answers will be kept private. Your name will not appear in any report.

Risks and Benefits:

There are no risks. Your answers may help researchers understand how students use ChatGPT.

Agreement:

By signing, you agree that:

- You understand the study.

- You agree to take part.

- You know you can stop at any time.

Participant Name: _____

Signature: _____

Date: _____

Researcher Name: _____

Signature: _____

Date: _____