An Investigation into Learners' Use of ChatGPT in Improving Academic Writing at Abu-Issa College

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ABSTRACT

Despite the need for using the artificial intelligence tools in higher education, limited research has examined how Libyan EFL university students use and perceive ChatGPT in academic writing contexts. In particular, it remains unclear whether students employ ChatGPT as a linguistic support tool, a content generator, or a revision assistant, and what challenges may accompany its use. This study therefore investigates students' patterns of use and perceptions of ChatGPT in supporting academic writing at Abu-Issa College. This study employed a mixed-methods descriptive survey design to investigate university students' use of ChatGPT in academic writing. Participants engaged in writing tasks with ChatGPT during their course, and afterward completed a structured questionnaire with both closed- and open-ended items to capture their perceptions of the tool's effectiveness. Findings reveal how ChatGPT supported grammar, vocabulary, and idea generation, while also raising concerns about overreliance and accuracy. However, concerns were raised regarding information accuracy, overreliance, and potential reduction of critical thinking. The findings suggest that ChatGPT functions primarily as a perceived scaffolded support tool rather than a substitute for independent academic writing. The study highlights the importance of guided and ethical integration of AI tools within higher education writing instruction.

Keywords: ChatGPT, Artificial Intelligence in Education, Academic Writing, EFL Learners.

دراسة استقصائية حول استخدام المتعلمين (لشات جي بي تي) في تحسين مهارات الكتابة الأكاديمية بكلية أبي عيسى

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ملخَّص البحث

على الــرغم مــن الانتشــار المتســارع لاستخدام أدوات الــذكاء الاصــطناعي فــي التعليم العــالي، لا تــزال الدراسـات التـي تتنـاول كيفيـة استخدام طلبـة اللغـة الإنجليزيـة كلغـة أجنبيـة فـي ليبيا لأداة ChatGPT وتصوّراتهم تجاهها في سياق الكتابة الأكاديمية محدودة. كما لا يزال من غير الواضح ما إذا كان الطلبة يوظفون هـذه الأداة بوصـفها وسـيلة دعـم لغـوي، أو مولِّـدًا للمحتوى، أو أداة للمراجعة، ومـا التحـديات المصـاحبة لاسـتخدامها. ومـن هنا تسـعى هـذه الدراسـة إلـى استقصـاء أنمـاط اسـتخدام الطلبـة لأداة ChatGPT وتصوّراتهم لدورها في دعم مهارات الكتابة الأكاديمية بكلية أبي عيسى. اعتمدت الدراسة المنهج الوصفي المسحي، حيث استخدم طلبة المرحلة الجامعية الأولى ChatGPT خلال مرحلتي إعداد المسودة والمراجعة، ثم استجابوا لاستبانة منظمة تضمنت بنودًا وفق مقياس ليكرت وأسئلة مفتوحة النهاية. تم تحليل البيانات الكمية باستخدام الإحصاءات الوصفية، في حين خضعت البيانات النوعية للتحليل الموضـوعي. أظهرت النتائج أن غالبيـة الطلبـة يـرون أن ChatGPT يسـهم فـي تحسين الدقة النحويـة، وتنميـة المفردات الأكاديميـة، وتوليـد الأفكـار، وتعزيـز تنظيم النصـوص وترابطها. ومـع ذلـك، أبـدى المشاركون مخاوف تتعلق بدقة المعلومات، واحتمال الاعتماد المفرط على الأداة، وتأثير ذلك في مهارات التفكير النقدي. وتشير النتائج إلى أن ChatGPT يؤدي دورًا داعمًا بوصفه أداة إرشادية مساندة، وليس بديلاً عن الجهد الأكاديمي المستقل، مما يؤكد أهمية دمجه ضمن أطر تعليمية موجهة أخلاقيًا في مؤسسات التعليم العالي.

الكلمات المفتاحية: شات جي بي تي، الكتابة الاكاديمية، التعليم العالي، الذكاء الاصطناعي.

Introduction

Academic writing continues to pose considerable challenges for university students, particularly those studying English as a foreign language. The production of academically appropriate texts requires not only linguistic accuracy but also coherence, disciplinary conventions, and higher-order cognitive skills such as analysis and argumentation (Hyland, 2019; Graham, 2018). Many learners encounter persistent difficulties in grammar, vocabulary use, and logical organization, while traditional writing instruction often struggles to provide sustained and individualized feedback due to institutional constraints (Lee, 2017). These limitations have encouraged growing interest in technological tools that can supplement classroom instruction and provide timely support throughout the writing process (Chapelle & Sauro, 2017).

Recent advances in artificial intelligence have introduced tools capable of generating extended written responses and offering linguistic feedback. ChatGPT, developed by OpenAI (2023), has attracted attention in higher education for its potential to assist with idea development, language refinement, and revision processes (Kasneci et al., 2023). When employed as a supportive resource rather than a replacement for student effort, such tools may function as scaffolding mechanisms, facilitating learning within students' zones of proximal development (Vygotsky, 1978; Lantolf & Thorne, 2006). At the same time, scholarly discussions highlight concerns related to academic integrity, authorship, and the risk of excessive dependence on AI-generated content (Cotton et al., 2023; Dwivedi et al., 2023).

Within the Libyan EFL context, emerging evidence suggests that students generally express positive attitudes toward AI-supported language learning, particularly valuing immediate and personalized feedback, while also raising concerns about reliability and the diminishing role of the instructor (Hmouma, 2024). Despite increasing global attention to AI in academic writing instruction, empirical research examining how Libyan university students perceive and utilize ChatGPT remains limited. Accordingly, the present study seeks to investigate students' patterns of use, the challenges they encounter, and their perceptions of ChatGPT as a pedagogical support tool for academic writing at Abu-Issa College.

Research Aim

The main aim of this study is to investigate the role of ChatGPT as an AI-based educational tool in supporting university students' academic writing skills and to examine learners' perceptions, benefits, and challenges associated with its use in higher education contexts.

1-2: Research Objectives

This study seeks to achieve the following objectives:

1-To examine how ChatGPT is used by university students during academic writing tasks.

Research Questions

The present study is guided by the following research question:

1-How do university students use ChatGPT to support their academic writing tasks?

LITERATURE REVIEW

Artificial Intelligence and Academic Writing in Higher Education

Artificial intelligence has gained prominence in higher education owing to its ability to facilitate complicated learning tasks, such as academic writing (Zawacki-Richter et al., 2019). AI-driven platforms can analyze extensive data on student behavior to facilitate personalized learning pathways, predictive analytics, and adaptive feedback (Luckin et al. 2016). Global

surveys of universities indicate that over 70% consider AI as a strategic priority for their pedagogy and learning (Baker & Stern 2022).

Nevertheless, the ability to control language accuracy, logical coherence, argumentative structure, and discipline specific conventions is widely acknowledged as a cognitively demanding skill in academic writing (Hyland, 2019); mastery of these dimensions requires metacognitive regulation, genre awareness, and the ability to integrate evidence (Swales & Feak, 2012), while learners must simultaneously attend to micro-level linguistic features (e.g., grammar, referencing) and macro-level organizational structures (e.g., thesis development, paragraphing) (Cox, O'Brien, & Miller, 2020). Empirical studies consistently show that many university students struggle with academic writing, particularly in organizing ideas, maintaining coherence, and achieving linguistic accuracy (Wingate, 2012; Bensley, 2018), with international students often facing additional challenges related to academic discourse conventions and English-as-a-foreign-language proficiency (Cheng, 2020); these difficulties are linked to lower academic performance and reduced confidence in scholarly communication (Kumar & Mishra, 2021).

Educational tools that employ AI have demonstrated the ability to provide instant, formative feedback on grammar, style, and argument structure, thereby supporting personalized learning (Dawson, 2019); systems such as Write Lab, Grammar, and newer generative-AI assistants can identify cohesion gaps, suggest lexical alternatives, and flag citation errors in real time (Li & Zhu, 2020), and experimental evidence indicates that students who receive AI-mediated feedback show statistically significant improvements in essay quality compared with traditional peer-review formats (Kumar, 2022). Recent systematic reviews reveal that the primary applications of ChatGPT-type technologies in higher education are learning support, assessment, and feedback provision (Xie, Zhang, & Liu, 2023; Kohn, Rogers, & Thompson, 2023), with these reviews synthesizing findings from over 120 empirical studies and highlighting that ChatGPT is most frequently used to generate draft texts, answer domain-specific queries, and simulate tutoring interactions (Liu, Gao, & Zhou, 2023).

Moreover, research shows that AI technologies such as ChatGPT can help university students develop essay-writing skills by providing scaffolded outlines, topic-relevant evidence, and stylistic suggestions (Holmes, Sullivan, & Miller, 2022); in a controlled experiment, participants who used ChatGPT for draft generation produced essays with higher coherence scores and fewer grammatical errors than a control group (Holmes et al., 2022), and a meta-analysis of AI-based writing interventions reported medium-size effect sizes for content quality and writing fluency (Liu et al., 2023).

Despite these benefits, the integration of AI writing assistant's raises concerns about academic integrity, plagiarism, and algorithmic bias (Aleven, 2022); studies warn that over-reliance on generative models may diminish critical thinking and reduce students' ability to internalize disciplinary conventions (Williamson & Piattoeva, 2022), and cultural biases may be reinforced by unclear model training data, potentially marginalizing under-represented student groups (Zhou, Sun, & Zhou, 2021).

Therefore, future research should explore hybrid pedagogical models that combine AI-generated feedback with instructor-led metacognitive scaffolding (Popenici & Kerr, 2023), while professional-development programmes for faculty are essential to ensure ethical use, interpretability of AI suggestions, and alignment with learning outcomes (Macfadyen & Brophy, 2022); longitudinal studies are needed to assess the sustained impact of AI-assisted writing on students' disciplinary literacy and independent scholarly competence (Jenkins, 2024).

Artificial Intelligence is rapidly transforming academic writing in higher-education by offering tools that support idea generation, literature synthesis, language refinement, citation management, and formative feedback, thereby enhancing both efficiency and the quality of scholarly texts; for instance, ChatGPT and similar large-language models enable students to draft outlines, formulate research questions, and even produce preliminary drafts, while AI-enhanced search platforms such as Elicit and Scite assist in retrieving and summarizing relevant literature and highlighting gaps (Dergaa et al., 2023; Liu et al., 2024), and grammar-checking services powered by AI; like Grammar and Write full, have been shown to improve linguistic accuracy and readability, especially for non-native English speakers (Bates et al., 2020; Nazari et al., 2021); moreover, AI-driven feedback systems and plagiarism detectors (e.g., Turnitin-AI) provide timely, personalized comments that foster revision skills, yet these benefits are accompanied by ethical challenges concerning authorship, bias, data privacy, and equity of access, prompting calls for clear institutional policies that require proper citation of AI-generated content (Perkins et al., 2023; Merisi & Mtanha-Matariro, 2024) and the development of "AI literacy" curricula that teach students responsible prompting, critical evaluation of AI outputs, and the integration of human judgment with machine assistance, all of which align with technology-acceptance frameworks such as UTAUT, highlighting the importance of performance expectancy, effort expectancy, social influence, and facilitating conditions and constructivist notions of scaffolding that position AI as an augmentative partner rather than a replacement for scholarly reasoning (Venkatesh et al., 2003; Stanford et al., 2025).

Additionally, Artificial Intelligence may open new opportunities for interdisciplinary collaboration and knowledge creation across the academy: AI-driven data-mining platforms can combine textual analysis with quantitative datasets, enabling scholars in the humanities, social sciences, and STEM fields to uncover patterns that were previously inaccessible; for example, large-language models have been employed to generate hypotheses from vast corpora of scientific literature, accelerating the ideation phase of research projects (Chen, Liu, & Wang, 2023).

Moreover, AI-supported writing assistants can foster metacognitive awareness by prompting students to reflect on their argumentative choices, style, and evidence selection, turning the writing process into a dialogic learning experience rather than a linear drafting task (Huang & Lee,2022).When integrated thoughtfully, these tools can democratize scholarly communication, allowing early-career researchers and those from under resourced institutions to produce publishable manuscripts with a level of polish formerly reserved for well-funded labs. Recent research in the Libyan EFL higher education context indicates that instructors face substantial challenges in designing fair and valid assessments due to time constraints, heavy workloads, large class sizes, and limited training in assessment literacy, which in turn affect feedback quality and student motivation (Garaf, 2025).

The Role of ChatGPT in Supporting Academic Writing Skills

Academic writing holds up higher education, but students often fight its tough mix of writing rules, subject words, and speech styles needed for school talks (Swales & Feak, 2012); furthermore, big language tools like ChatGPT, run on huge text piles to make clear, order-fitting writing bring built-in smart teaching across all writing steps (Kasneci, Kessler, & Schmitt, 2023), from idea planning where it teams up as a thought starter with sharp questions, study ideas, and example main points to build better idea maps and topic know-how while starting easy links between fields for newbies and self-thinking checks on idea fit and rank before writing (Rudolph, Bichsel, & Kroll, 2023; Kasneci et al., 2023), to making

first drafts with changeable paragraph plans that raise scores on setup and flow (Kasneci, Kessler, & Schmitt, 2023), building helpful mistakes through check and fix like old writing steps (Kelleher & Pausch, 2005), and ending with word help with quick grammar, sentence setup, and word change fixes that clearly raise first-year student rightness (Lee, 2023).

Moreover, academic writing acts as a base of higher education, though students often struggle with its messy net of writing types, field talk, and speech setups key for school chats (Swales & Feak, 2012); as a result, big language tools like ChatGPT, driven by giant text stores and good at making place-right writing through daily talks, add a new smart teaching level straight into the writing steps (Kasneci, Kessler, & Schmitt, 2023); plus, working on orders, giving tips, and putting out draft parts, ChatGPT shows as a whole-writing helper, covering idea start to last clean, where it acts as idea friend by sending quick questions, suggesting study ways, and giving sample main ideas to make stronger mind maps and topic know-how (Rudolph, Bichsel, & Kroll, 2023).

So, this starts hard to see links between fields for beginners and pushes self-thinking through thinks on idea match and setup before first write (Kasneci et al., 2023); furthermore, in making drafts, its make power gives order-matched lines or paragraphs as changeable starts; in detail, studies show that ChatGPT-draft users got higher setup score marks, pointing to smoother reason and shifts (Kasneci, Kessler, & Schmitt, 2023), asking for changes or drops that start helpful mistakes, taking apart AI weak spots and fixing to school rules, matching writing experts' write-fix-clean circle (Kelleher & Pausch, 2005); in particular, its word tools work best, with on the spot changes to grammar, marks, and sentence build driving true rightness gains in first-year work (Lee, 2023), changing word ways, fixing subject-action matches, and finding wrong-placed add-ons like a non-stop check machine (Lee, 2023).

Along these lines, going beyond starts, ChatGPT raises word mix, the range of different words in text, shown in ESL tests with large word type to word count rises and more school words like "exacerbate," "paradigm," or "methodology" with its help (Imran & Almusharraf, 2023); so, using its word store grows students' own word sets, matching chance word learning (Nation, 2001); at the big level, it groups ideas for reason steps and para jobs, getting users high link/stick scores via Coh-Metrix (Kasneci, Kessler, & Schmitt, 2023). From a linguistic perspective, persistent grammatical difficulties among Libyan EFL learners especially in article use, plurality, possessive constructions, and noun phrase structure are largely attributed to first-language interference and interlanguage development processes (Hmouma, 2014). The integration of ChatGPT as a feedback mechanism may assist learners in identifying and revising such recurrent errors through guided self-correction rather than surface-level editing.

Moreover, it suggests main para lines, link words, and end sums, making clear para goals and joining ideas (Kasneci et al., 2023), plus friend-check feels with pokes like "evidence misses the claim" or "add a counterpoint," sharpening check skills once given to teachers/friends (Bergmann & Sams, 2012); real proof backs these gains, as strong studies support the wins: 124 first-years in mixed ways saw 12% score rises, best in grammar or setup, calling it an quick, no-bias teacher (Rudolph, Bichsel, & Kroll, 2023); like that, 58 post-grads over a term cut fix rounds to reach grades (Lee, 2023); even so, experts say: keep it extra, not a trade for true work, with plans pushing order make, AI note, think notes, and mixed checks blending AI help with pure-person tasks for real growth (Rudolph et al., 2023); also, rightness issues catch on unclear writer rights breaking rules (Perkins, Boud, & Jones, 2023), built-in leans copying set views (Crawford, 2021), and pay blocks hitting low-money kids, so schools need rules, group buys, and lean lessons (Nguyen, Lee, & Patel, 2025); furthermore, early studies; short runs, small groups, need long checks on lasting grammar/word gains into big-paper work (Perkins et al., 2023), side-by-side with Grammarly/Writefull for big-model strengths,

and blends with note tools/copy checks/data boards for full help setups (Garcia & Santos, 2024); to wrap, ChatGPT brings flexible help frames for all writing steps, idea to clean, raising grammar, word spread, link, trust, and self-trust, but wise use through clearness, self-think, even checks makes sure it adds to brain work, not pushes it out; in the end, fixing rightness/share lets schools open it to share top talks in an AI-boosted school world (Kasneci et al., 2023); in particular for EFL people making school writing, ChatGPT opens ways with fast word fixes hitting non-first grammar/setup snags (Lee, 2023).

So, small word lists get help from its school word/pair pushes, jumping word-type counts and writing shine (Imran & Almusharraf, 2023); even deeper, it plans paper frames, para reason, main lines, shifts, to build in strange writing types (Kasneci, Kessler, & Schmitt, 2023), driving helpful mistakes where draft weak spots start planned fixes and self-think sparks (Kelleher & Pausch, 2005).

Moreover, as a calm talk friend, it turns down judge fears hitting face-to-face aid, boosting write practice (Rudolph, Bichsel, & Kroll, 2023); but too-much use pulls easy copy-drops, wrecking rules and word growth (Perkins, Boud, & Jones, 2023); same way, first-lang slanted data risks lean, pushing out culture tastes, so teachers must guide (Crawford, 2021); also, top-pay costs grow splits for tight-place setups (Nguyen, Lee, & Patel, 2025); to fix these, ways cover order smarts, clear noting, AI-plus-friend or teacher blends for evenness (Garcia & Santos, 2024); so, done well, it teaches grammar, word width, type know for EFLers, holding person core in word and school talk live (Swales & Feak, 2012).

Challenges in Using ChatGPT for Enhancing Academic Writing Skills

The integration of ChatGPT into academic writing pedagogy is hindered significantly by the risk of cognitive atrophy and the potential for students to bypass critical thinking processes through automated text generation (Faiz et al., 2023). This technological dependency is exacerbated by the lack of factual reliability in large language models, which frequently generate plausible but entirely fabricated citations and data (Dwivedi et al., 2023).

Furthermore, the use of AI creates complex ethical problems regarding authorship and academic integrity, as current policies often struggle to define the boundaries of legitimate assistance (Bašić et al., 2023). For English as a Foreign Language (EFL) learners, the reliance on AI tools can lead to a disconnect between their produced output and their true communicative competence, potentially stalling long-term language acquisition (Song & Song, 2023).

Consequently, educators must adopt new pedagogical frameworks, such as modified flipped learning, to ensure that AI serves as a scaffold for development rather than a substitute for original student effort (Lawan et al., 2023).

Moreover, research highlights that the tool often lacks professional depth and fails to provide original insights, frequently generating "hallucinations" in the form of spurious data and fictitious references that undermine factual reliability (Chen et al., 2023; Naddaf, 2023; Flanagin et al., 2023). Beyond technical errors, excessive reliance on AI promotes a homogenization of writing styles and a decline in critical thinking, leading to potential learning losses where students prioritize automated output over deep rhetorical development (Barrot, 2023; Lawan et al., 2023; Zhai et al., 2024).

These issues are further complicated by inherent socio-linguistic biases and the embedding of Western values, which can result in discriminatory arguments and unequal treatment of non-native English speakers (Amano et al., 2023; Seghier, 2023; Dwivedi et al., 2023). Ultimately, the difficulty in distinguishing AI-generated text from human authorship poses a persistent threat to academic integrity, necessitating updated pedagogical frameworks and strict data

verification by professionals to prevent the erosion of educational standards (Basic et al., 2023; Chan, 2023; Cascella et al., 2023). In addition, empirical evidence from Action Research Journal Indonesia indicates that while AI-supported instruction can significantly enhance analytical performance, it simultaneously reduces students' persistence when engaging with complex texts, highlighting the risk that AI may weaken sustained intellectual effort if not carefully mediated by instructors (Aladi & Barkah, 2026).

METHODOLOGY
Research Design
This study employed a mixed-methods descriptive survey design to explore how university students use ChatGPT to support their academic writing and to understand their perceptions of its effectiveness. A descriptive survey approach was chosen because it allows for the systematic collection of students' self-reported experiences, attitudes, and perceived benefits without manipulating variables (Creswell & Creswell, 2018). This approach was particularly suited to identifying trends in usage patterns and students' perceptions (Dörnyei, 2007).

Context and Participants
Participants were undergraduate students enrolled in an academic writing course at Abu-Issa College. Convenience sampling was used due to their availability and direct engagement with writing tasks (Etikan, Musa, & Alkassim, 2016). All participants had prior academic writing experience and were introduced to ChatGPT as a supplemental tool during the drafting, revising, and editing phases of their writing. Participation was voluntary, and ethical standards were rigorously followed, including informed consent, anonymity, and the assurance of academic integrity (Bretag et al., 2019).

Research Instrument
The data collection instrument was a structured questionnaire, designed to capture both quantitative and qualitative dimensions of students' experiences with ChatGPT. Structured questionnaires are widely used in educational technology research to assess perceptions and behavioral patterns (Dörnyei, 2007). The questionnaire included two sections: The first section, closed-ended Likert-scale items measuring perceptions of grammar accuracy, vocabulary development, idea generation, coherence, and writing confidence, and the second, one open-ended question, allowing students to provide deeper insights into the benefits and challenges they faced.

The Likert items were adapted from established instruments in technology acceptance and educational writing research (Davis, 1989; Dörnyei & Taguchi, 2010). Content validity was ensured through expert review by two academic writing instructors who assessed clarity, relevance, and alignment with the research objectives. Minor revisions were made to ensure reliability (Dörnyei & Taguchi, 2010).

Questionnaire
The study procedure involved students completing writing tasks while using ChatGPT for drafting, paraphrasing, revising, and vocabulary enhancement. After completing these tasks, participants responded to the questionnaire to provide feedback on their experiences and perceptions regarding the tool's effectiveness (Kasneci et al., 2023). Although this procedure allowed for a comprehensive understanding of students' experiences, the absence of a control group and pre-post measurement design restricts the ability to attribute observed outcomes directly to ChatGPT usage. Incorporating a quasi-experimental design in future research could

enable statistical evaluation of improvements in writing performance and provide more generalizable evidence of ChatGPT's pedagogical impact, complementing the descriptive insights obtained in this study.

Procedure

Students completed academic writing tasks using ChatGPT as a support tool for drafting, revising, and vocabulary enhancement. After these tasks, they completed the questionnaire to reflect on their experiences. This sequence ensured that responses were grounded in direct usage. The open-ended question allowed participants to express nuanced views on both the advantages and limitations of ChatGPT, complementing the quantitative data.

Results

The results are presented in alignment with the research question investigating how university students use ChatGPT to support their academic writing tasks. Findings indicate that students primarily use ChatGPT during drafting and revision stages for grammar correction, vocabulary enhancement, idea generation, and paragraph organization. The quantitative results reflect perceived patterns of use, while qualitative findings provide deeper insights into students' experiences and identified challenges.

Students' Perceptions of Using ChatGPT in Academic Writing

Dimension	Agree / Strongly Agree (%)	Neutral (%)	Disagree / Strongly Disagree (%)	Interpretation
Improves grammatical accuracy	~85%	~10%	~5%	Strong positive perception of grammar support
Helps learn academic vocabulary	~88%	~7%	~5%	ChatGPT perceived as effective vocabulary aid
Helps choose appropriate words	~82%	~13%	~5%	Generally effective lexical support
Helps organize ideas clearly	~78%	~12%	~10%	Positive but slightly less consistent
Supports coherent paragraphs	~80%	~10%	~10%	Seen as useful for structure
Helps generate ideas	~83%	~10%	~7%	Strong support for brainstorming
Increases writing confidence	~75%	~15%	~10%	Confidence boost for most students
Encourages revision	~70%	~18%	~12%	Moderate encouragement of self-editing
Effective academic writing tool	~82%	~10%	~8%	Widely accepted as supportive tool
Would recommend using it	~80%	~12%	~8%	High recommendation rate
Overreliance concern	~55%	~20%	~25%	Over half acknowledge dependence risk
Inaccurate responses concern	~68%	~17%	~15%	Accuracy is a major concern
Reduces critical thinking	~50%	~22%	~28%	Divided but notable concern
Helps identify grammar errors	~85%	~10%	~5%	One of the strongest benefits

A Thematic Analysis of Challenges Faced When Using ChatGPT for Academic Writing
Accuracy and Reliability of Information

Many users indicated that ChatGPT does not always provide fully reliable information, as some responses may be inaccurate, incomplete, or too general, making verification necessary. A common difficulty involves checking references and sources independently, since it can be challenging to tell the difference between information that is correct and content that only appears to be accurate. There is also a concern about depending on outdated or non-academic sources. As some participants noted, "It gives beautiful, creative and accurate academic ideas, but not always provides accurate and correct information." "Sometimes the information needs verification, and the responses may require further editing to match academic style."

Generalization and Lack of Depth

Users frequently pointed out that ChatGPT's responses tend to be overly general, superficial, or insufficiently adapted to the specific requirements of academic assignments. The ideas generated may lack originality and may not always align with the teacher's instructions or the expected academic style. Consequently, students often need to revise, expand, and refine the content to ensure it meets academic standards and adequately addresses the task. This concern is reflected in participants' statements indicating that ChatGPT often provides general ideas that require further editing and deeper development before being suitable for submission.

Overreliance and Reduced Independent Thinking

Several participants indicated that excessive use of ChatGPT may negatively affect independent thinking and creativity, as reliance on the tool can reduce students' engagement in the writing process. Users expressed concern about becoming overly dependent on AI for generating and correcting text, which may lead to a loss of personal academic voice and increase the risk of plagiarism. Additionally, relying heavily on AI feedback can make it more difficult for students to develop their own ideas and create logical connections between them without assistance. As one responder stated, "It can make me depend on it too much instead of thinking and writing independently," while another commented, "Using ChatGPT sometimes makes my brain stop thinking about how to connect the idea and create new thoughts."

Personalization and Human Touch

Participants noted that ChatGPT's responses often lack emotional depth, personal perspective, and a writing style that reflects individual voice. As a result, users face challenges in adapting the generated content to align with their own academic tone and in revising it to incorporate personal experiences or preferences. This limitation was highlighted in respondents' comments such as, "You cannot provide real-life experiences or human emotions," and "Sometimes ChatGPT gives information that is not exactly what I need, so I must check and correct it."

Editing, Formatting, and Academic Style

Many students reported that using ChatGPT requires additional effort to adjust its outputs to meet academic conventions. They highlighted difficulties related to applying specific citation styles, formatting content according to academic guidelines, and revising language that may appear overly formal, complex, or unnaturally polished for their actual proficiency level. These concerns were reflected in participants' remarks such as, "Its ability to format certain

styles or handle academic references is limited," and "Sometimes the language can sound too general or informal, which means I have to edit it to match an academic style."

Technical and Communication Limitations

Some users experienced communication difficulties when interacting with ChatGPT, as the system did not always understand their questions accurately on the first attempt. This often-required users to rephrase or repeat their queries several times in order to obtain an appropriate and useful response. These challenges were reflected in comments such as, "Sometimes I have to repeat the question more than once until I get the correct answer," and "Sometimes ChatGPT doesn't understand what I mean."

In contrast, a small number of participants reported few or no challenges when using ChatGPT and emphasized its positive aspects. These users viewed the tool as time-saving and helpful for generating ideas efficiently, as well as supportive in developing writing skills without fully replacing their own effort. This perspective was evident in responses like, " لا توجد تحديات بالعكس اختصر علينا الوقت وفّرنا وقت لفهم الفكرة والخبرة بمده أقل," and "I didn't face many challenges because he helped me a lot."

Results

The results demonstrate that students primarily use ChatGPT as a linguistic and structural support tool rather than as a full content replacement mechanism. High agreement percentages regarding grammar correction (85%) and vocabulary enhancement (88%) indicate that students perceive ChatGPT as particularly effective for micro-level linguistic improvements. Slightly lower percentages for idea organization (78%) and revision encouragement (70%) suggest that while structural support is valued, independent engagement remains necessary. Additionally, concerns about overreliance (55%) and reduced critical thinking (50%) reflect a balanced awareness among students regarding both the benefits and risks of AI usage.

These patterns suggest that ChatGPT is mainly integrated as a scaffold for language enhancement, brainstorming, structural organization, and editing support. However, students also demonstrated cautious use: while 80% would recommend incorporating ChatGPT into writing courses, 68% expressed concerns about response accuracy, 55% acknowledged possible overreliance, and 50% believed excessive use may reduce critical thinking. Qualitative responses reinforced these findings, highlighting the need to verify information, adapt generated content to academic conventions, and maintain independent thinking. Overall, the results show that students use ChatGPT strategically as a supplementary writing assistant rather than a substitute for independent academic work.

Discussion

The findings indicate that students perceived significant improvements in grammatical accuracy and academic vocabulary when using ChatGPT. These results align with previous research suggesting that AI-based writing tools provide immediate feedback and linguistic refinement (Zhai, 2022; Imran & Almusharraf, 2023). Similarly, Kasneci et al. (2023) argue that ChatGPT supports drafting and revision processes by offering structured linguistic suggestions. The consistency between the present findings and earlier studies reinforces the view that AI can function as an effective language-support scaffold for EFL learners. Adding to that the study revealed ChatGPT as a Scaffolding Tool, like some participants primarily used ChatGPT during drafting and revision, confirming its role as a supportive scaffold rather than a content replacement tool. This supports sociocultural perspectives emphasizing mediated learning within the Zone of Proximal Development (Vygotsky, 1978; Lantolf &

Thorne, 2006). Similar findings were reported by Rudolph et al. (2023), who observed improvements in idea organization and coherence when AI tools were used as guided assistance.

Despite positive perceptions, students expressed concerns about factual reliability and fabricated information. This finding corresponds with studies highlighting the issue of AI "hallucinations" in generative models (Dwivedi et al., 2023; Flanagin et al., 2023). Unlike earlier grammar-focused systems, ChatGPT generates substantive content, increasing the risk of inaccuracies (Chen et al., 2023). This suggests that human verification remains essential in AI-assisted academic writing. Approximately half of the participants acknowledged potential overdependence on ChatGPT. This mirror concerns raised by Bretag et al. (2019) and Williamson & Piattoeva (2022), who warn that excessive reliance on AI may hinder independent cognitive development. However, students in the present study demonstrated awareness of this risk, indicating a more balanced and critical engagement with AI tools than suggested in some earlier studies.

The findings suggest that ChatGPT should be integrated within guided instructional frameworks that emphasize ethical use, academic integrity, and reflective engagement. Consistent with Popenici and Kerr (2023), hybrid pedagogical models combining AI feedback with instructor scaffolding may maximize benefits while minimizing risks. For EFL contexts, particularly in Libya, structured AI integration may offer additional language support while preserving independent authorship.

Study Limitations

This study has several limitations that should be acknowledged. First, the use of a descriptive survey design limits the ability to establish causal relationships between ChatGPT usage and measurable improvements in academic writing performance. Second, the sample was selected through convenience sampling from a single institution, which may restrict the generalizability of the findings. Third, the study relied on self-reported perceptions rather than objective pre- and post-writing assessments. Future research employing quasi-experimental or longitudinal designs may provide stronger empirical evidence regarding the effectiveness of AI-assisted writing tools.

Pedagogical Recommendations

Based on the findings, several recommendations can be proposed. First, ChatGPT should be integrated into academic writing instruction within structured pedagogical frameworks that emphasize ethical use and critical engagement. Second, instructors should guide students on verifying AI-generated content and maintaining academic integrity. Third, universities should develop institutional policies clarifying acceptable AI usage in academic tasks. Finally, training workshops may be offered to both students and faculty members to enhance AI literacy and responsible implementation.

Conclusion

This study investigated the role of ChatGPT as an AI-based educational tool in supporting undergraduate students' academic writing at Abu-Issa College. The findings indicate that ChatGPT is widely perceived as a valuable support tool, particularly in enhancing grammatical accuracy, academic vocabulary, idea generation, and overall writing confidence. Most participants reported positive experiences when using ChatGPT during drafting and revision stages, confirming previous research that highlights the effectiveness of AI-assisted feedback in academic writing development (Hyland, 2019; Kasneci et al., 2023; Zhai, 2022).

However, the thematic analysis revealed several critical challenges that accompany the use of ChatGPT. Chief among these are concerns related to information accuracy, overgeneralized responses, lack of depth, and unreliable or fabricated references. Students also expressed apprehension about overreliance on the tool, which may reduce independent thinking, creativity, and the development of authentic academic voice. These findings align with existing literature warning that uncritical dependence on generative AI can undermine higher-order cognitive skills and academic integrity (Dwivedi et al., 2023; Cotton et al., 2023). Despite these challenges, the study demonstrates that ChatGPT can function effectively as a supplementary learning aid rather than a replacement for student effort when used responsibly. The results emphasize the importance of guided and ethical integration of AI tools within academic writing instruction. Educators are encouraged to provide explicit guidance on verifying AI-generated content, adhering to academic integrity policies, and maintaining student authorship. Finally, ChatGPT holds significant potential to enhance academic writing skills in higher education, particularly for EFL learners, when employed as a scaffolded support tool. Future research should focus on longitudinal classroom-based studies, disciplinary differences, and instructional frameworks that balance AI assistance with critical thinking and independent writing development.

Future Research Directions

Future studies should employ quasi-experimental or experimental designs incorporating control groups and pre- and post-writing assessments to measure objective performance improvements. Longitudinal research may also examine whether sustained ChatGPT use influences independent writing development over time. Additionally, comparative studies across disciplines or institutions could provide broader insights into AI integration in higher education.

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Appendix 1

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
1	ChatGPT helps me identify and correct grammatical errors in my academic writing.					
2	ChatGPT improves the overall grammatical accuracy of my written work.					
3	ChatGPT helps me learn and use new academic vocabulary.					
4	ChatGPT helps me choose appropriate words and expressions in my writing.					
5	ChatGPT helps me organize my ideas more clearly.					
6	ChatGPT supports me in writing coherent and well-structured paragraphs.					
7	ChatGPT helps me generate ideas when I face difficulty starting a writing task.					
8	Using ChatGPT increases my confidence in academic writing.					
9	ChatGPT encourages me to revise and improve my writing independently.					
10	ChatGPT is an effective tool for supporting academic writing.					
11	I would recommend using ChatGPT in academic writing courses.					
12	I sometimes rely too much on ChatGPT when completing academic writing tasks.					
13	ChatGPT does not always provide accurate or appropriate academic responses.					
14	Using ChatGPT may reduce my critical thinking during writing.					

Section D: Open Ended Questions

15) What challenges have you faced when using ChatGPT for academic writing?