



Between Support and Substitution: EFL Supervisors' Perceptions of Postgraduate Students' Use of AI in Academic Research

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ABSTRACT

The increasing use of artificial intelligence (AI) in postgraduate research has raised questions about its effects on students' academic work and their development as researchers. This qualitative study examined EFL supervisors' perceptions of postgraduate students' use of AI in academic research. Semi-structured interviews were conducted with eleven EFL supervisors from seven Saudi public universities, and the data were analysed manually using thematic analysis. Thematic saturation was reached after the ninth interview, and two additional interviews confirmed the stability of the thematic structure. Two themes were developed: AI and Academic Writing, and AI and Academic Research. The findings showed that supervisors viewed AI as useful for enhancing the visible quality of writing but questioned whether such improvement extended to writing development, argumentation, and student voice. They also perceived AI as an interactive source of research assistance but expressed concern when it replaced students' methodological and disciplinary knowledge. Supervisors associated passive reliance with reduced opportunities for critical engagement, whereas active, evaluative use was viewed as potentially supportive of critical thinking. Overall, they distinguished between AI use that supports students' intellectual work and use that replaces it. The study therefore highlights the need to guide postgraduate students towards critically engaged AI practices that preserve their responsibility for writing, argumentation, and research decisions.

Keywords: Artificial intelligence, Academic research, EFL supervisors' perceptions, Postgraduate students, Saudi higher education.



1. Introduction

The increasing accessibility and integration of AI tools into academic practice have given artificial intelligence (AI) a growing influence on higher education. These tools affect how knowledge is accessed, produced, and shared (UNESCO IESALC, 2023), generating increasing interest in their role in teaching, learning, and research (Hong et al., 2025). This development is especially significant in Saudi Arabia, where AI has gained strategic importance at both national and educational levels.

Under the Saudi Vision 2030, AI has moved from a supporting element of digital transformation to a strategic pillar of Saudi Arabia's national development. This direction is in line with wider efforts to promote innovation and build a knowledge-based economy (Saudi Press Agency [SPA], 2026). This agenda became institutionalised through the establishment of the Saudi Data & AI Authority (SDAIA) and the National Strategy for Data and AI (SDAIA, 2020). The declaration of 2026 as the Year of Artificial Intelligence was another sign of the national importance of AI (SDAIA, n.d.). The policy context is an important backdrop to thinking about the use of AI in higher education and academic research.

AI can now support activities across the research process, including brainstorming, mapping the literature, analysing data, and editing (Ekundayo et al., 2024; Verboom et al., 2025). Its growing integration may also influence how research questions are formulated, evidence is synthesised, and findings are communicated (Parker & Becker, 2026). These possibilities require particular attention in postgraduate education, where students are expected to develop the methodological knowledge and research capabilities needed for independent scholarly inquiry (Daniel, 2022). Saudi studies confirm that postgraduate students already use AI in research, although reported levels vary across settings (Almoharraaq, 2024; Al-Shahrani, 2025).

Postgraduate students studying English as a foreign language (EFL) represent a distinctive context because they must conduct research and communicate their findings in English, a major language of international scholarship (Flowerdew & Habibie, 2021). Although AI may improve the efficiency and accuracy of research tasks (Ekundayo et al., 2024), postgraduate EFL writers have expressed concerns about excessive dependence and AI's limited capacity to address complex writing problems (Tran et al., 2025). It is therefore important to explore these tensions within the settings in which research is conducted and supervised.

Supervisors occupy a central pedagogical role in developing postgraduate students' research knowledge, skills, and competences (Grohnert et al., 2024). Because they engage with students' work across the research process, they can provide evidence that is not available through students' self-reports alone.

1.1 Statement of the Problem

Despite growing attention to postgraduate students' use of AI in research, evidence from Saudi Arabia remains limited. Existing studies have examined students' reported use, awareness, research-skill development, and perceived barriers (Almoharraaq, 2024; Al-Shahrani, 2025), but this evidence is largely self-reported and offers limited qualitative insight. Neither study examined supervisors' perceptions or situated the inquiry specifically within EFL postgraduate education.



EFL research has considered AI from learner and teacher perspectives (e.g., Al-Biladi, 2026; Jamshed et al., 2024), while Tran et al. (2025) examined postgraduate students' experiences of AI-supported academic writing. These studies provide relevant evidence but focus mainly on teaching, learning, or writing rather than AI use across the research process. Supervisors' perceptions of the benefits and concerns associated with this broader use therefore remain insufficiently understood. Dai et al. (2023), who examined ChatGPT in research supervision from the perspective of Australian postgraduate research students, similarly called for supervisors' views to provide a more balanced account. The present study addresses this contextual, methodological, and perspectival gap through a qualitative investigation of Saudi EFL supervisors' perceptions of postgraduate students' use of AI in academic research.

1.2 Significance of the Study

The study is academically significant because it provides contextualised qualitative evidence from Saudi EFL supervisors for a literature largely concerned with student reports, instructional applications, and individual AI tools. It addresses both academic writing and the broader research process, highlighting the conditions under which supervisors perceive AI use as supportive rather than substitutive. Practically, the findings may inform supervisory guidance and research training designed to help postgraduate students use AI while retaining responsibility for their writing, reasoning, and methodological choices. The study also provides evidence relevant to institutional responses to AI within the rapidly evolving Saudi higher education context.

1.3 Study Objectives and Research Questions

This study aimed to explore EFL supervisors' perceptions of postgraduate students' use of AI in academic research. Specifically, it investigated the benefits that EFL supervisors perceived in such use and their concerns about it. Accordingly, the study addressed the following main research question:

How do EFL supervisors perceive postgraduate students' use of AI in academic research?

To address the main question, the following subquestions were formulated:

1. What benefits do EFL supervisors perceive in postgraduate students' use of AI in academic research?
2. What concerns do EFL supervisors have regarding postgraduate students' use of AI in academic research?



2. Literature Review

2.1 AI in Academic Research

AI has drawn international attention in higher-education administration, teaching, learning and research. In an early qualitative contribution, Pisica et al. (2023) found that Romanian academics anticipated benefits for teaching and learning such as skill development, but also had concerns about ethical implementation and data security.

More focused research on academic practice presents a similarly qualified picture. Academics in the United Kingdom, Nigeria, and the United Arab Emirates generally regarded AI as a tool with the potential to improve the efficiency, accuracy, and outcomes of research, but its actual application was still limited (Ekundayo et al., 2024). The same study underlined the need to use it responsibly to mitigate bias and protect privacy and research integrity. Interviews with AI experts and professors in Portugal, the Netherlands and the United States revealed similar findings, that effective integration depends on alignment with human needs and adequate institutional guidance and resources (Verboom et al., 2025). Zhang (2025) similarly described possible efficiencies in literature reviewing, data analysis, and academic writing, but raised concerns about privacy, authorship, and integrity.

Studies examining AI use among postgraduate students in Saudi Arabia have produced differing estimates. For example, Al-Shahrani (2025) documented low use of generative AI for research-skill development and substantial barriers among students in curriculum and teaching-methods departments. Conversely, Almoharraq's (2024) mixed-methods case study at King Abdulaziz University reported high levels of use across disciplines, although follow-up interviews indicated limited understanding of AI and its application to research. Reported frequency may therefore be setting-dependent and may not indicate informed or critically engaged use. An emphasis on barriers was also evident in research involving a broader Saudi academic population. Samman and Al-Sharif (2025) surveyed faculty members and postgraduate students at selected Saudi universities and identified concerns related particularly to accuracy, bias, and limited awareness.

In general, international literature depicts AI as an increasingly influential, though contested, factor across all stages of research, while the research literature in the Saudi context presents a more uneven view of the use of AI in postgraduate studies. It is still largely survey-based, and looks at frequency and barriers, providing little qualitative evidence of how AI use is perceived across research practices. Furthermore, the focus of these studies is on academic research in general rather than the particular linguistic and scholarly needs of EFL postgraduate work.

2.2 AI in EFL Research

International EFL research is beginning to move beyond language teaching and learning towards the use of AI in academic research. In this context, AI may support both research activities and the linguistic demands of scholarly writing,



while also raising concerns about how that support is used.

Much of this emerging body of qualitative/mixed-methods literature has focused on students' experiences with AI-supported academic writing. For example, Winarti et al. (2025), in Indonesia, found that EFL students viewed AI as beneficial for improving the efficiency, linguistic accuracy, and organization of English thesis-proposal writing, but also expressed concerns about over-reliance and potential influences on critical thinking and creativity. Similarly, MA students in English language studies in Vietnam also perceived AI as a positive influence on their writing skills and helpful aid, but they identified overdependence and the inability to address complex writing issues as major challenges (Tran et al., 2025). Other Indonesian investigations focused on the quality and suitability of AI-supported language. For example, Fauziah et al. (2025) identified that an EFL lecturer and students perceived AI as assisting in development of ideas, organization and language improvement, but they also characterised the language as machine-like. Similarly, the postgraduate participants in Lazuardiyyah et al. (2025) reported that they used AI to support academic writing and translation, but expressed concerns around grammatical errors, contextual appropriateness, and dependency.

This emerging evidence indicates continuing interest in AI-supported EFL writing, but its predominant focus remains student-centred and language-related. Consequently, it provides limited insight into AI use across the research process or into how supervisors evaluate such use.

The integration of AI in the EFL context in Saudi Arabia has been increasingly studied, especially in relation to language learning and teaching. At the learner level, Jamshed et al. (2024) found that undergraduate EFL learners had very positive perceptions of AI-enabled language learning and teaching and supported its further classroom integration in Saudi higher education.

Most of the research on faculty perspectives has focused on instructional integration. A qualitative study at Haql College by Altamimi (2025) revealed that lecturers saw AI as offering opportunities for more personalised and engaging teaching, potentially benefiting students' motivation and language development, but also highlighted institutional and pedagogical barriers to successful integration. Similarly, Al-Biladi's (2026) broader quantitative research revealed that EFL faculty in Saudi universities identified barriers to AI integration and expressed that they were working to overcome them. Mudawy (2024) examined attitudes of EFL faculty members toward AI use in their research writing at Majmaah University, beyond classroom integration. Faculty viewed AI as a positive force, particularly in terms of its ability to help with efficiency and quality for all sorts of research and writing tasks, such as literature reviews, data analysis, and language polishing. But they also emphasised the importance of ethical use and careful quality control.

Saudi EFL research thus indicates overall receptive attitudes toward AI, but has focused on language teaching and faculty members' own research writing. It has not examined faculty members in their supervisory role or their perceptions of



postgraduate students' AI use across the research process.

2.3 Synthesis and Research Gap

The literature presents AI as an increasingly important yet contested presence in academic research, but attention is uneven across contexts, participant groups, and research practices. International studies address academic research broadly; Saudi postgraduate studies focus largely on reported use and barriers; and EFL studies are primarily student-centred and concerned with academic writing or classroom practice. Faculty perspectives as supervisors of postgraduate research remain largely absent.

This omission matters because supervisors guide and evaluate students' work across the research process and can observe patterns that student self-reports may not capture. Methodologically, Saudi postgraduate research remains largely survey-based, while qualitative EFL studies have not examined supervisors' perceptions of the benefits and concerns associated with students' AI use beyond writing. The present study addresses this gap through a qualitative investigation of Saudi EFL supervisors' perceptions.

3. Methodology

3.1 Research Design and Context

This study employed a qualitative research design because the research question sought to understand how EFL supervisors interpreted and evaluated postgraduate students' use of AI in academic research. The phenomenon is context-dependent and involves supervisors' meanings, judgements, and distinctions between supportive and concerning forms of use. A qualitative approach was therefore more appropriate than a quantitative design based on predetermined response categories because it allowed participants to elaborate on their perceptions and enabled the analysis to examine their complexity and variation. The design was closely aligned with the exploratory research question and the aim of developing a contextualised understanding of supervisory perceptions (Creswell & Poth, 2024). The study was conducted in Saudi higher education, where postgraduate students in English-language and related EFL specialisations conduct their thesis research in English. EFL supervisors were selected because their sustained engagement with students' proposals, drafts, methodological decisions, and final theses placed them in a strong position to comment on AI use in both academic writing and the wider research process.

3.2 Participants and Sampling Strategy

The final sample comprised eleven EFL supervisors working at seven public universities across different regions of Saudi Arabia, including both long-established and newer institutions. All participants held PhDs and had experience supervising MA and/or PhD research in English language studies. Five were men and six were women. Their supervisory experience ranged from one semester to 10 years. The participants also varied in academic specialisation and self-reported knowledge of AI, enabling the study to capture both shared and divergent views within a distinct supervisory group.



Purposive and snowball sampling were used to recruit information-rich participants with direct experience of the phenomenon. Participants were required to hold a PhD, work as EFL supervisors within English language studies, have experience supervising MA and/or PhD thesis research, and be sufficiently familiar with postgraduate students' AI use to comment on it. Data collection and preliminary analysis proceeded concurrently. Thematic saturation was reached after the ninth interview, when no substantially new information, codes, categories, or themes relevant to the research question were emerging. Two additional interviews were then conducted to confirm the stability and adequacy of the developing thematic structure; neither materially altered the findings. Recruitment therefore concluded after eleven interviews on the basis of the confirmed stability of the analysis rather than an arbitrary numerical cut-off. This approach is consistent with operational accounts of thematic saturation that assess the limited contribution of additional interviews to an established coding and thematic framework (Guest et al., 2020; Hennink & Kaiser, 2022).

3.3 Data Collection and Analysis

Data were collected in April 2026 through semi-structured interviews. This flexible and non-standardised method enables researchers to explore a phenomenon in depth through open-ended questions (Gall et al., 1996). It maintained a consistent focus on the research questions while allowing participants to explain their perceptions and draw on supervisory examples. The interview guide was informed by the research questions and relevant literature and was reviewed by the first researcher's supervisor. A pilot interview with an eligible individual assessed the clarity, sequencing, and flow of the questions; the pilot data were excluded from the analysis. Interviews were conducted mainly in English and therefore generally required no translation. Google Meet was used because participants were located across several universities and regions.

Participants received an information sheet and consent form before the interview. At the outset, the researchers explained the study, confidentiality arrangements, the voluntary nature of participation, and the right to withdraw, and they obtained permission to record the interview. Brief background questions preceded questions about perceived benefits and concerns. Interviews lasted approximately 25–50 minutes.

The data were analysed using thematic analysis. Coding remained close to participants' accounts, while the research questions provided an initial focus on perceived benefits and concerns. The flexible and recursive character of thematic analysis was appropriate for examining both shared patterns and differences across supervisors' accounts (Braun & Clarke, 2006, 2021). The analysis involved repeated familiarisation with the transcripts, initial coding, comparison and refinement of codes, development and review of candidate themes, and definition of the final thematic structure.

Following transcription, each transcript was read repeatedly before relevant segments were coded. Codes were compared within and across interviews and revised as the analysis progressed. Analytical notes recorded coding decisions,



emerging relationships, less common views, and changes to the developing thematic structure.

Related codes were grouped into candidate categories and themes. Although the initial organisational frame reflected the study's focus on benefits and concerns, it was revised when participants' accounts indicated that the same use could be supportive or concerning depending on students' engagement. Candidate themes were checked against both the coded extracts and the full dataset to assess their coherence and distinctiveness. The final structure comprised two themes—AI and Academic Writing, and AI and Academic Research—and six subthemes. The researchers retained responsibility for coding, interpretation, and theme development throughout the process.

3.4 Trustworthiness, Ethics, and Reflexivity

Trustworthiness is important in qualitative research because it enables readers to evaluate the credibility and transparency of the interpretive process (Nowell et al., 2017). Credibility was supported through repeated engagement with the transcripts, attention to divergent and less common accounts, and the inclusion of direct extracts (Lincoln & Guba, 1985). Dependability was enhanced through a consistent interview protocol and a traceable analytical process documented in analytical notes, code revisions, and theme refinements. Confirmability was supported by grounding the codes, themes, and interpretations in participants' accounts and maintaining records of analytical decisions. Transferability was facilitated by providing contextual information about Saudi EFL higher education and relevant participant characteristics.

Ethical procedures included informed consent, voluntary participation, confidentiality, and secure data handling. Participants were assigned identifiers (e.g., Supervisor 1, Supervisor 2, and Supervisor 3), and identifying details, including university names, were omitted to protect their identities.

The first researcher's position as a postgraduate student provided proximity to the population under discussion while requiring reflexive awareness throughout the analysis. Analytical notes and attention to accounts that complicated early interpretations helped preserve the range of participants' perspectives. All analytical decisions were made before AI tools were used for language refinement; the researchers themselves conducted the coding and interpretation, developed the themes, and determined the final analytical structure.

4. Results

Two themes were developed: AI and Academic Writing, comprising visible writing quality, writing development, argumentation, and student voice; and AI and Academic Research, comprising interactive assistance, research knowledge, and critical engagement. Benefits and concerns did not form discrete categories. Instead, supervisors often interpreted the same form of AI support differently depending on whether students retained intellectual responsibility for their work.



4.1 AI and Academic Writing

Supervisors perceived AI as a means of improving the surface quality of postgraduate writing, but they distinguished linguistic polish from the development of writing ability, argumentation, and individual voice.

4.1.1 Enhancement of Visible Writing Quality

Supervisors generally perceived postgraduate students' use of AI as enhancing the visible quality of their academic writing, particularly through editing and proofreading. Supervisor 6 explained, "The quality of writing, with no doubt, has jumped among these students [...], because it's like you have a personal editor, a personal proofreader, right there beside you". This description portrays AI as an immediate, personalised writing companion. The most evident gains concerned editing, proofreading, and language polishing rather than demonstrable development as a writer. Several supervisors made a similar distinction. Supervisor 7 extended this view by presenting AI as a broader form of academic writing support for EFL postgraduate writers. Emphasising the absence of writing centres and tutoring support, he stated that "AI right now functions as a writing center", thereby positioning AI as a compensatory source of guidance in a context where supervisors are often the main providers of writing support.

Supervisors therefore valued AI's capacity to provide immediate editing support, particularly where sustained academic-writing provision was limited. Their approval, however, related mainly to the presentation of writing rather than to the intellectual and developmental work underlying it.

4.1.2 Disruption of the Writing Process and Skill Development

Despite these visible improvements, supervisors expressed concern about whether postgraduate students' writing skills were developing. Supervisor 1 reflected, "Writing is a skill that you can't gain in 24 hours [...] with AI and everything that it can offer, it really takes this long process away from students, so they get the conclusion without the process". This account locates the concern in what students may lose when AI compresses the gradual process of drafting, confronting difficulty, revising, and developing. Supervisor 8 shifted the focus from the tool to student agency: "I believe that artificial intelligence doesn't support students' writing improvement [...] if they do not have the intention to develop their writing". In his view, AI did not develop writing ability by itself; its value depended on the student's intention and active engagement. Other supervisors made a similar point when discussing 'copy-paste' practices, which they associated with avoiding rather than supporting learning. The concern was not simply that AI was used frequently, but that it could be used in ways that bypassed the writing process and curtailed opportunities to develop independent writing skills.

4.1.3 Argumentation in Academic Writing

Supervisors also questioned whether improvements in academic writing were accompanied by sufficient argumentative depth. Supervisor 2 explained, "The writing is much better [...] their work is proofread, but the power of the argument is a bit surface, not that deep". This account suggests a gap between linguistic



polish and the argumentative depth expected at postgraduate level. Improved language was not considered evidence that a student had developed, justified, or connected claims effectively. Supervisor 9 offered another perspective by asking whether students used AI to support or replace academic writing and argumentation: “I think it [AI] shouldn’t be used as the main tool for writing. I mean, it could be used for editing, for revision, but not the main tool for writing [...] I know a lot of people use it to generate texts for them. I think that’s the issue”. For this supervisor, editing and revision represented legitimate forms of support, whereas text generation risked replacing the writing through which arguments are formed. Writing was therefore viewed not only as a means of expressing thought but also as part of the process through which thought develops. The central concern was that surface polish could mask weak argumentation or reduce students’ participation in constructing their own arguments.

4.1.4 Student Voice in Academic Writing

Supervisors also noted that the use of AI by postgraduate students may reduce the visibility of their individual voice in academic writing. Supervisor 2 reflected on this issue: “I feel that part of her is not there. She’s there, but a part of her that I see face-to-face, that I hear in her voice when she talks, I don’t see in the paper now”. The concern extends beyond style. Supervisor 2 treated academic writing as evidence of the student’s recognisable intellectual presence and perceived AI-mediated writing as weakening the connection between the student’s spoken reasoning and written text. Supervisor 3 extended the discussion of personal voice to the similarities across postgraduate students’ written work: “Another concern is that the papers are getting to look very similar [...] we are kind of losing the personal voice. I found that the literature review is almost the same”. Her account broadens the issue from diminished voice within one student’s work to increasing uniformity across students’ texts. Student voice was therefore understood both as an individual intellectual presence and as the distinctiveness that differentiates one researcher’s writing from another’s.

4.2 AI and Academic Research

Supervisors evaluated AI use in the broader research process through two related issues: whether AI served as interactive assistance or replaced research knowledge, and whether students engaged with its outputs critically or passively.

4.2.1 AI Assistance in Research Practices

Some supervisors perceived AI as a source of interactive assistance for postgraduate students who may require ongoing support throughout the research process. Supervisor 1 explained, “During the MA and even during a PhD, we really need someone to talk to other than our supervisor. And AI is the perfect assistant. It gives and takes and works with you. But only if you know how to use it properly”. This account presents AI as an accessible space in which students can articulate and test developing ideas between supervisory meetings. Supervisor 3 similarly described AI as a potential intellectual partner, although both accounts made its value conditional on informed use. Supervisors also expressed concern that some forms of AI assistance might hinder the development of research



knowledge. Supervisor 9 explained:

It is easy to generate the whole text without knowing the fundamentals of basic research. If a student, for example, is following a case study approach, they might write about it using AI without fully understanding what a case study is, or phenomenology, or narrative inquiry. I think these are the basics of academic research.

The concern is epistemic rather than merely procedural: students may produce plausible research text without understanding the methodological choices it describes. Supervisor 4 extended this concern to knowledge normally developed by reading previous studies, locating a study within its field, and identifying a research gap. Interactive assistance was therefore valued when it extended students' engagement with research but became concerning when it displaced the disciplinary and methodological knowledge that postgraduate study is intended to develop.

4.2.2 Critical Engagement with AI

Some supervisors expressed concern about passive reliance on AI, particularly when postgraduate students demonstrated limited critical engagement with a research task. Supervisor 5 illustrated this concern: "Sometimes you ask them a question, for example, 'What are the similarities and differences between your study and previous studies?'" She needs to go quickly to AI and ask it to give her a response. The problem is rushing to find an answer using AI". This example depicts a student turning to AI before undertaking the comparison, judgement, and positioning required by the task. Supervisor 9 expressed a similar concern that passive reliance could deprive some students of opportunities to think critically, while emphasising that the effect depended on how the tool was used. However, several supervisors did not consider postgraduate students' AI use necessarily passive. Supervisor 7 offered an alternative account in which students engaged critically with AI: "Sometimes, you could use AI for analysis and critical thinking. You could first pose your thoughts and then ask it to help you assess or evaluate them. In this case, I'm helping students think along with AI as a partner, not only a receiver of AI thoughts".

This account presents a contrasting form of use in which students begin with their own reasoning and use AI to test, question, or refine it. Supervisor 2 similarly described a student who challenged AI outputs and remained 'the master' of the learning process. In these accounts, critical engagement was visible in the student's control over the question, evaluation of the response, and final judgement. The distinction was therefore not between AI use and non-use, but between passive acceptance and active, evaluative engagement. Only the latter was perceived as potentially supportive of critical thinking.

5 Discussion

5.1 AI and Academic Writing

Supervisors' accounts distinguished the visible quality of AI-assisted prose from the intellectual and developmental qualities expected in postgraduate writing.



They reported improvements in visible writing quality, consistent with EFL studies that have identified more polished and efficient academic writing through AI support (e.g., Mudawy, 2024; Tran et al., 2025; Winarti et al., 2025). The present findings clarify what supervisors believed had improved: immediate editing and proofreading, together with accessible writing support in a context where sustained provision may be limited. Importantly, supervisors did not regard improved presentation as evidence of stronger research thinking. Their accounts distinguished the observable quality of the textual product from the intellectual work through which postgraduate writing is developed. They also viewed academic writing as a developmental process rather than merely a polished product. This concern aligns with research suggesting that AI-assisted writing may limit the development of independent writing skills (Deep & Chen, 2025; Ya'u & Mohammed, 2025), alongside broader uncertainty about AI's contribution to deeper writing development (Shabir, 2025). The present study adds a supervisory perspective by framing the risk as reduced student participation in drafting, revising, and learning through difficulty. AI was not invariably viewed as a barrier to development; concern arose when it was used as a shortcut that bypassed the cognitive and linguistic work through which writing skills are acquired.

Supervisors perceived argumentation as analytically distinct from linguistic polish. Previous research suggests that AI can support argumentative writing (Kim & Kim, 2022; Raza et al., 2024), while other evidence suggests that its contribution to language refinement is clearer than its contribution to argument development (Ya'u & Mohammed, 2025). The findings help reconcile these positions by making the outcome conditional on the student's role. AI may support argumentation when students use it to examine claims or revise reasoning, but it may undermine ownership when it performs the explanatory and connective work for them. The contribution is therefore not a broad generalisation that AI improves or harms argumentation, but a distinction between scaffolding students' reasoning and substituting for it. Supervisors also understood voice as the student's recognisable intellectual presence rather than simply an individual writing style. Previous studies have identified potential challenges to preserving authorial voice and authentic expression when AI is used in academic writing (Al Hosni, 2025; Amirjalili et al., 2024), while Coetzer and van Aardt (2024) specifically warn that over-reliance on AI may silence student voice and inhibit its development. The current findings extend this concern from reduced voice within an individual text to perceived similarity across students' literature reviews and other writing. This matters in postgraduate research because academic writing reflects the researcher's selection, evaluation, and positioning of knowledge. The central issue is therefore less whether AI-assisted prose appears fluent than whether readers can identify the student's intellectual choices within it.

5.2 AI and Academic Research

Beyond writing, supervisors' evaluations centred on whether AI extended students' engagement with research or replaced the knowledge and judgement



expected of postgraduate researchers. Supervisors did not regard AI assistance in research as inherently problematic. They valued its capacity to help students discuss ideas and obtain responsive support between formal supervisory interactions, a role consistent with research describing AI as a source of continuous academic assistance (Deep & Chen, 2025; Kim et al., 2025). The present study extends this role beyond writing to the wider research process. However, the same accessibility became problematic when plausible explanations of methods, literature, or research gaps replaced students' own understanding. Although AI may support methodological learning and doctoral research competence (Arosio, 2025; Oliinyk et al., 2024), supervisors' accounts indicate that access to an explanation is not equivalent to possessing research knowledge. AI assistance was considered educationally valuable only when it helped students build rather than bypass that knowledge. The findings also qualify broad generalisations about AI and critical thinking. Supervisors associated passive dependence with fewer opportunities to interpret, compare, and evaluate evidence, aligning with previous research suggesting that AI may weaken critical thinking by reducing students' active engagement (Melisa et al., 2025; Octaberlina et al., 2024). However, they described AI as potentially useful when students first articulated their own position, tested it against an AI response, and retained control over the final judgement. This aligns with recent research suggesting that AI may support critical thinking when students engage with it critically and responsibly (Alkam et al., 2026; Melisa et al., 2025). Critical engagement therefore depended on the sequence and ownership of the intellectual work: AI could challenge reasoning that the student had already initiated but became substitutive when consulted before the student attempted the task.

Thus, the distinction between support and substitution has implications beyond how supervisors evaluate students' use of AI. It suggests that postgraduate research training should focus on nurturing students' ability to use AI critically, while remaining responsible for reasoning, assessment of evidence, choices of research methods, and written argumentation, rather than merely controlling the use of AI. In this sense, AI literacy should be regarded as an aspect of postgraduate research competence and not as a separate technical skill.

6. Implications of the Study

The study has implications for EFL supervisors, postgraduate students, and postgraduate research training. Supervisors can make the distinction between supportive and substitutive AI use explicit in their expectations and feedback. Practical strategies include asking students to explain their reasoning orally, justify methodological and interpretive choices, demonstrate development across drafts, and disclose where and why AI was used. These practices can help evaluate intellectual ownership without presuming that all AI assistance is inappropriate. Students should remain responsible for the claims, sources, interpretations, and methodological choices in AI-assisted work. Productive use involves beginning with their own reasoning, verifying AI outputs against reliable evidence, and



revising rather than uncritically accepting generated text. Maintaining drafts or brief records of substantial AI use may also help students evaluate whether the tool augmented or supplanted their learning. Finally, research training should extend beyond general warnings to include guided practice in evaluating AI-generated claims, checking sources, protecting sensitive data, disclosing use, and distinguishing language assistance from authorship and analytical decision-making. Training activities that contrast passive prompting with critical, iterative AI use may help students distinguish between using AI to extend their thinking and relying on it as a substitute for the research knowledge they are expected to develop.

7. Conclusion

The findings show that EFL supervisors did not view postgraduate students' AI use through a simple benefit–risk binary. Their judgements depended on whether AI supported or substituted for students' intellectual work. AI was valued for improving the apparent quality of writing and providing convenient, interactive research assistance. Concerns arose when polished prose concealed limited argumentation, students bypassed writing development or methodological learning, or AI responses replaced critical comparison and judgement. Supervisors nevertheless perceived value in students using AI to test ideas, provided that they retained control over evidence, interpretation, and decision-making. Rather than treating AI use as inherently beneficial or harmful, supervisors and institutions should distinguish between practices that extend students' thinking and those that replace it. Effective guidance should therefore promote critical, transparent, and accountable AI use while preserving students' responsibility for writing, argumentation, methodological understanding, and research decisions.

The study's main contribution is a context-sensitive distinction between supportive and substitutive AI use. This distinction provides a useful framework for understanding the educational value of AI in postgraduate research and for shaping supervisory guidance and research training. AI is most educationally valuable when it extends students' capacity to work critically and independently rather than performing the intellectual work they are expected to learn to undertake.

The study has several limitations. First, it relied exclusively on supervisors' interviews; consequently, the findings represent perceptions and reported supervisory experiences rather than verified patterns of students' AI use. Including students' perspectives, written work, draft histories, or feedback records could strengthen methodological triangulation in future research. Second, the sample was limited to eleven EFL supervisors in Saudi public universities, and recruitment depended on participants' availability and willingness to participate. The findings may therefore be analytically transferable to comparable contexts but are not statistically generalisable. Finally, the findings capture supervisors' perceptions at a particular point in the rapid development of AI tools and institutional policies. Future research could triangulate supervisor and student



perspectives with evidence from drafts, written work, feedback records, or documented AI interactions. Such research could compare reported use with observable academic practice and examine how intellectual ownership is negotiated during supervision. The transferability of the themes could also be examined across public and private universities, regions, specialisations, and levels of supervisory experience. Longitudinal research might investigate whether distinctions between supportive and substitutive use change as AI literacy, tools, and institutional policies evolve.

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