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Integrating technology into academic writing instruction: Lecturers' practices and perspectives

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This article explores lecturers' integration of digital technologies in the teaching of academic writing at a higher education institution. Academic writing remains a key competence through which students demonstrate disciplinary knowledge, critical thinking and scholarly engagement. As digital technologies become increasingly embedded in teaching and learning, lecturers are expected to use technological tools to support writing development. However, technology use is influenced by pedagogical beliefs, institutional conditions, workload pressures and concerns about academic integrity. The study adopted a qualitative approach, using semi-structured interviews with 11 purposively selected lecturers from the Department of Applied Languages. Social cognitive theory informed the study. The findings revealed that technology is mainly used for feedback provision, plagiarism detection and learning management. Although lecturers acknowledged the potential of technology in enhancing accessibility, efficiency and student engagement, they expressed concerns about students' overreliance on automated tools and generative artificial intelligence, and the possible erosion of student authorship. Institutional factors, including large class sizes and limited professional development opportunities, also shaped technology use. The study recommends balanced, scaffolded and pedagogically grounded integration that supports learner-centred, process-oriented and feedback-driven approaches to academic writing.

Contribution: The study provides insight into lecturers' practices and highlights contextually responsive approaches to technology-enhanced academic writing in higher education.

Keywords: academic writing; technology integration; higher education; feedback; lecturer perspectives; digital pedagogy.

Introduction

Academic writing is a fundamental component of learning and assessment in higher education institutions (HEIs), serving as a primary means through which students articulate knowledge, construct arguments and participate meaningfully in disciplinary discourse. Through academic writing, students demonstrate not only their understanding of subject content but also their ability to engage critically with sources, apply disciplinary conventions and communicate ideas in ways that are recognised and valued within academic communities.

Proficiency in academic writing is therefore closely linked to academic success, retention and progression, particularly in contexts in which students are required to write in a second or additional language and may have limited prior exposure to academic genres and conventions (Hyland 2019; Wingate 2025). As higher education increasingly adopts digital modes of teaching and learning, the nature of academic writing instruction is undergoing significant transformation. Lecturers play a central role in mediating students' engagement with academic writing by modelling disciplinary norms, designing writing tasks and providing feedback that supports writing development over time. However, the integration of technology into writing instruction introduces new pedagogical demands and challenges that extend beyond traditional classroom practices. Digital tools such as learning management systems, automated feedback software, plagiarism detection tools, online collaborative platforms and generative artificial intelligence (AI) systems have reshaped how writing is taught, produced and assessed, offering new possibilities for efficiency, accessibility and student support (Koltovskaia 2020; Mekheimer 2025; Mudau, Cekiso & Mandende 2025; Trust, Carpenter & Krutka 2023).

While these technologies present opportunities for enhanced feedback, flexible learning pathways and increased learner autonomy, they also raise critical concerns related to academic integrity, surface-level engagement with writing tasks and the potential erosion of students' independent

thinking and authorial voice. Recent scholarship emphasises that technology alone does not improve writing outcomes; rather, its effectiveness depends on thoughtful pedagogical alignment, lecturers' digital and pedagogical expertise, and adequate institutional support structures (Boud & Molloy 2013; Hyland & Hyland 2019). In multilingual and discipline-specific contexts, technology integration must also account for students' linguistic diversity, uneven digital literacy, prior educational experiences and varying familiarity with academic genres.

Despite growing scholarly interest in digital writing pedagogies, there remains limited empirical research that foregrounds lecturers' perspectives on how technology is incorporated in everyday academic writing instruction within real-world higher education settings. If lecturers' experiences, constraints and pedagogical decision-making processes are not examined, technology integration risks becoming primarily instrumental rather than pedagogical, reinforcing efficiency-driven practices at the expense of deep, meaningful learning and sustained academic writing development. Importantly, this study makes a distinct contribution by filling this gap through an in-depth exploration of lecturers' lived experiences, pedagogical decision-making and contextual constraints in integrating digital and AI tools into academic writing instruction. In doing so, this study moves beyond a student-centred or tool-focused perspective and foregrounds the often-overlooked role of lecturers as key agents in shaping how technology is meaningfully enacted in writing pedagogy within higher education. This study therefore aimed to explore lecturers' practices and perspectives on integrating technology into academic writing instruction in an Institution of Higher Learning (IHL), with particular attention to perceived effectiveness, challenges and contextual influences. The study addresses the following research questions:

- How do lecturers integrate technology into academic writing instruction in a Higher Institution of Learning?
- How do lecturers perceive the effectiveness of technology in supporting students' academic writing development?
- What challenges do lecturers encounter when integrating technology into academic writing instruction?

Literature review

Recent scholarship on academic writing instruction has increasingly focused on the opportunities and challenges presented by digital technologies and generative AI in higher education. Collectively, studies suggest that technological tools can improve academic writing by providing immediate feedback, enhancing accessibility to learning resources, supporting learner autonomy and facilitating personalised learning experiences (Aljuaid 2024; Qassrawi 1991). These technologies have been found to be particularly beneficial in resource-constrained environments, in which access to individualised lecturer support may be limited.

However, the literature also highlights significant concerns regarding the pedagogical and ethical implications of AI integration. Researchers caution that excessive reliance on generative AI may compromise academic integrity, diminish students' engagement in the writing process, and weaken the development of critical thinking and independent writing skills (Deep & Chen 2025; Kim et al. 2026). Consequently, there is growing consensus that technology should not replace human interaction in academic writing instruction but should instead be integrated within carefully designed pedagogical frameworks that promote responsible and meaningful learning (Zhu, Wang & Searsmith 2025). A second strand of literature emphasises the importance of collaborative and socially mediated approaches to academic writing development. Studies consistently demonstrate that peer review platforms, AI-supported collaborative tools and online discussion forums create opportunities for students to engage in dialogue, negotiate meaning and reflect critically on their writing (Guo et al. 2024). Such collaborative environments have been associated with improvements in writing quality, argumentation skills, self-efficacy and learner engagement (Jiang 2025; Kim et al. 2026; Li & Kim 2016; Bennett, Agostinho & Lockyer 2017; Cekiso 2024). Rather than viewing technology merely as a mechanism for automating writing tasks, recent scholarship positions digital tools as mediational resources that facilitate interaction and support socially constructed learning processes.

The literature further indicates that the effectiveness of academic writing instruction is shaped by contextual and institutional conditions. Across higher education contexts, lecturers often contend with large class sizes, heavy marking loads, limited instructional time and increasingly diverse student populations (Aljuaid 2024; Kim, Yu & Detrick 2025; Meyers, Smith & Cekiso 2023). These challenges frequently constrain lecturers' ability to provide personalised feedback, scaffold iterative writing processes and fully exploit the pedagogical potential of digital technologies. Consequently, pedagogical choices are often influenced as much by institutional realities as by lecturers' beliefs about effective teaching and learning.

Another recurring theme concerns the significance of digital literacy and institutional support in facilitating successful technology integration. Research suggests that meaningful technology use requires more than access to digital tools; it also depends on lecturers' technological competence, pedagogical preparedness and institutional support structures, including professional development opportunities, policy guidance and adequate technological infrastructure (Aljuaid 2024; Kim et al. 2025). Similarly, students' varying levels of digital literacy significantly influence their ability to engage effectively with technology-enhanced learning environments.

These findings underscore the need for context-sensitive and inclusive approaches that address inequalities in technological access and competence. Within South African higher education, these issues are further compounded by multilingualism, socio-economic disparities and unequal access to technological resources. Research in South African

academic literacy contexts demonstrates that rapid technological developments have outpaced traditional academic literacy interventions, resulting in a digital divide that influences student engagement and academic success (Nel 2025). Consequently, scholars argue for the explicit integration of digital literacy within academic literacy programmes to equip students with the competencies required to navigate technologically mediated learning environments. These competencies include not only writing skills but also the ability to access digital resources, engage with online platforms and participate effectively in contemporary academic communities. South African studies also point to the potential of learning analytics and data-driven approaches in supporting academic writing instruction. Educational data mining and machine-learning techniques have been shown to provide valuable insights into student engagement and performance patterns, enabling lecturers to identify learning challenges and tailor instructional support accordingly (Roestenburg et al. 2024). Such approaches suggest that technology can function not merely as a delivery mechanism but also as a tool for enhancing pedagogical responsiveness and improving decision-making in academic writing instruction. Nevertheless, research consistently emphasises that technological interventions alone are insufficient to improve student writing outcomes unless they are embedded within pedagogically sound instructional frameworks that account for students' language competencies and disciplinary expectations (Ntsopi 2024).

A further theme emerging from the literature is the importance of inclusive and context-sensitive pedagogical design. Researchers argue that differences in disciplinary conventions, prior educational experiences, language proficiency, and cultural backgrounds necessitate flexible and adaptive teaching approaches (Aljuaid 2024; Kim et al. 2026). Frameworks such as Universal Design for Learning have therefore been proposed as valuable mechanisms for promoting accessibility and equity in technology-enhanced academic writing instruction (Moodley 2024). Such frameworks emphasise multiple means of representation, engagement and expression, thereby accommodating the diverse needs of students within contemporary higher education settings.

Despite the expanding body of research on technology-enhanced academic writing instruction, significant gaps remain. Much of the existing literature focuses primarily on student experiences, writing performance and the effectiveness of particular technological tools. Comparatively less attention has been given to lecturers' perspectives on integrating technology and generative AI into academic writing instruction and the contextual factors that shape their pedagogical decisions. Furthermore, limited research has examined how lecturers negotiate the tensions among technological innovation, academic integrity, institutional expectations and student development, particularly within diverse and resource-constrained higher education contexts.

The present study addresses these gaps by foregrounding lecturers' perspectives on academic writing instruction and technology integration in higher education. By examining the interaction among pedagogical beliefs, institutional conditions and technological resources, the study contributes to a more nuanced understanding of how academic writing instruction is enacted in contemporary higher education contexts. In doing so, the study provides empirical evidence that can inform the development of context-sensitive, inclusive and technologically enhanced pedagogical approaches to academic writing instruction.

Theoretical framework

This study adopts sociocultural theory (SCT; Bandura 1986; Lantolf & Thorne 2006; Vygotsky 1978) as its primary theoretical framework to conceptualise academic writing instruction in higher education. Sociocultural theory emphasises that learning is socially mediated, occurring through interactions with more knowledgeable others, collaborative engagement, and culturally situated tools. In the context of academic writing, lecturers serve as mediators who scaffold students' development by modelling disciplinary conventions, providing iterative feedback and guiding engagement with writing technologies.

This framework is particularly relevant for multilingual and digitally mediated learning contexts, in which students' prior linguistic knowledge, cultural backgrounds and familiarity with academic genres influence writing development. By foregrounding the interplay among social, cognitive and technological factors, SCT provides a lens to examine how lecturers' pedagogical decisions, institutional constraints and digital tools collectively shape students' academic writing proficiency. The adoption of SCT contributes to the study by offering a conceptual foundation for analysing how lecturers facilitate writing development through socially and contextually mediated practices. The theory enables the study to investigate the dynamic interaction among lecturers, students and institutional and technological environments, rather than treating writing challenges as individual deficits. Conversely, this study extends SCT by providing empirical insights into lecturer perspectives in multilingual, technology-rich and discipline-specific higher educationareas where SCT has been less frequently applied. By documenting how lecturers negotiate workload pressures, diverse student abilities, and the integration of digital and AI tools in writing instruction, the study offers evidence for refining sociocultural assumptions about mediated learning, highlighting the critical role of institutional and technological scaffolds in shaping academic writing outcomes.

In addition, the study draws on the Technological Pedagogical Content Knowledge (TPACK) framework to further illuminate how lecturers integrate technology, particularly AI, into writing instruction. Technological Pedagogical Content Knowledge provides a nuanced lens for understanding the intersection of content knowledge, pedagogical strategies and technological tools, emphasising that effective teaching with AI requires more than technical proficiency; TPACK demands thoughtful alignment with disciplinary writing conventions and learning objectives.

Within this study, TPACK is particularly valuable in examining how lecturers make pedagogical decisions about the use of AI tools (such as generative writing assistants), how they scaffold students' engagement with these tools, and how they balance opportunities for enhanced learning with concerns about academic integrity. By foregrounding AI within the TPACK framework, the study contributes to emerging scholarship on digitally mediated writing practices and highlights the evolving role of lecturers as facilitators who must critically and ethically integrate AI into academic literacy development.

Research methods and design

This study employed a qualitative research approach, which is particularly suited for exploring complex pedagogical practices, lecturer perceptions and contextual factors in higher education (Crossman 2020). Qualitative research facilitates the collection and interpretation of non-numerical data, allowing researchers to gain insights into how participants construct meaning within their professional contexts (Cherry 2022). Given the study's aim of examining lecturers' approaches to teaching academic writing, a case study design was adopted. According to Cherry (2022), a case study involves an in-depth investigation of a bounded system, such as an institution, programme or group, enabling the researcher to analyse multiple sources of evidence and uncover patterns, meanings and contextual dynamics. This design was appropriate as it allowed for a detailed, contextually grounded exploration of the pedagogical, technological and institutional factors influencing lecturers' instructional practices.

Research participants

The study involved 11 lecturers purposively selected from a South African university offering academic literacy and discipline-specific writing modules. Purposive sampling was used to identify participants with direct involvement in teaching academic writing, as this method ensures the inclusion of individuals with specialised knowledge relevant to the research objectives (Creswell 2014). Participants represented a range of disciplines, including language practice, communication studies and academic literacy support programmes. Their professional experience and active engagement in teaching academic writing positioned them to provide rich, nuanced insights into pedagogical strategies, challenges and emerging instructional practices. Importantly, data saturation was used to determine the adequacy of the sample size. Saturation was reached when no new themes, ideas, or conceptual insights emerged from the interviews and subsequent responses began to repeat previously identified patterns. At this point, additional data collection was deemed unnecessary, as sufficient depth and consistency had been achieved across the dataset.

Data collection methods

Data were collected through semi-structured interviews, which balance consistency across participants with the flexibility to explore emergent issues (Kallio et al. 2016). Interviews lasted approximately 45–60 min and were conducted either face-to-face or online, depending on participant availability. The interview protocol focused on eliciting in-depth insights into lecturers' approaches to teaching academic writing, including the strategies employed, perceptions of effectiveness, and challenges faced in multilingual and discipline-specific contexts. Participants were also asked to reflect on their use of technology, feedback practices and collaborative teaching strategies, ensuring alignment with the study's research objectives.

Data analysis

The collected data were analysed by using thematic analysis, a systematic qualitative method that identifies patterns, categories and overarching themes across datasets (Suter 2012). An inductive approach was adopted, allowing themes to emerge organically from the data rather than being predetermined by theoretical assumptions (Thomas 2006; Williman 2011). The analysis involved multiple stages: data familiarisation, initial coding of significant statements, clustering related codes into categories and the development of overarching themes representing lecturers' pedagogical practices, perceptions of effectiveness and contextual challenges (Creswell & Creswell 2018; Patton 2001). Key themes that emerged included pedagogical orientations, feedback practices, technology integration, multilingual and discipline-specific challenges and institutional constraints (Mare 2020; Saldaña 2021).

Ethical considerations

Ethical clearance was obtained from the Tshwane University of Technology Research Ethics Committee on 30 August 2024 (REC2024/01/005 [HUM]). Participants were fully informed about the purpose of the study, their right to withdraw at any time, and measures to ensure confidentiality and anonymity. Consent forms were completed by all participants. Ethical principles such as respect, privacy, integrity, and justice were upheld throughout the study, and extra care was taken to ensure that no harm or undue pressure was placed on participants, particularly those from potentially vulnerable populations.

Results

The analysis of semi-structured interviews with 11 lecturers generated six interrelated themes that explain how academic writing is taught in an HEI. Overall, the findings show that writing instruction is shaped by a combination of pedagogical preferences, institutional demands and contextual constraints. Lecturers' practices reflect a continual negotiation between established and emerging approaches, particularly in multilingual and discipline-specific environments.

Theme 1: Institutional assessment regimes sustain the dominance of traditional, product-based writing pedagogy

The data indicate that product-oriented approaches remain the dominant mode of academic writing instruction.

Lecturers consistently described practices focused on the final written output, largely shaped by assessment requirements, curricula and institutional expectations. Teaching emphasises grammatical accuracy, structure, and adherence to academic conventions:

> 'We still rely a lot on models and examples. Students look at the sample text, and we expect them to produce something similar'. (Female, lecturer, FL3, 35–45 years old)

> 'Most of our assessment criteria focus on the final product'. (Female, lecturer, FL2, 35–45 years old)

> 'The product approach is what many of us were trained in, so it becomes the default'. (Male, lecturer, ML10, 35–45 years old)

These practices offer students clear guidance on expectations and assessment requirements. However, they also limit opportunities for drafting, revision and deeper engagement with writing as a process. Writing is often treated as a finished product rather than a developing skill.

The findings further suggest that this dominance is reinforced by institutional assessment structures, which prioritise final submissions over developmental writing.

Theme 2: Process and genre-based pedagogies are valued but applied inconsistently because of structural constraints

Although product-based approaches remain dominant, some lecturers incorporate process-oriented and genre-based strategies when conditions allow. These include drafting, revising, brainstorming and explicit instruction on disciplinary conventions and audience expectations:

> 'When I can, I try to take students through drafting and redrafting. They begin to see that writing is not just about getting it right the first time'. (Female, lecturer, FL2, 35–45 years old)

> 'Genre-based teaching helps students understand why they are writing in a certain way, especially in specific disciplines'. (Female, lecturer, FL5, 25–34 years old)

However, these approaches are not consistently applied:

> A participant stated: 'I focus on process stages where possible, but large class sizes make it impossible to do this consistently'. (Male, lecturer, ML10, 35–45 years old)

The findings show that while lecturers value these approaches, their implementation is constrained by time limitations, large enrolments and workload pressures. As a result, students often experience them in partial or fragmented ways.

Theme 3: Feedback functions as a central but uneven pedagogical tool shaped by student engagement and workload pressures

Feedback was consistently identified as a central element of academic writing instruction. Lecturers described providing both written and oral feedback that addresses grammar, structure, argumentation and disciplinary expectations:

> 'I spend a lot of time giving detailed feedback, but sometimes students only look at the mark and ignore the comments'. (Male, lecturer, ML6, 35–45 years old)

> 'Feedback works best when students actually revise their work'. (Male, lecturer, ML8, 35–45 years old)

> 'Students sometimes treat feedback as a checklist rather than an opportunity to improve'. (Male, lecturer, ML7, 35–45 years old)

The findings indicate that feedback is most effective when students actively engage with it through revision. However, this is not always the case. Engagement varies significantly, with some students applying feedback meaningfully and others focusing only on grades.

Lecturers also highlighted that limited time and large classes restrict their ability to follow up on how feedback is used, reducing opportunities for iterative improvement.

Theme 4: Technology is cautiously integrated into writing instruction, with pedagogical value dependent on guided and purposeful use

Technology is increasingly used in academic writing instruction, although its application remains uneven. Lecturers reported using learning management systems, word processors, plagiarism detection tools and online collaborative platforms. Some also mentioned experimenting with AI tools:

> 'Technology helps with managing feedback, especially with large classes, but I worry that students depend too much on tools instead of thinking through their writing'. (Female, lecturer, FL3, 35–45 years old)

> 'AI tools can assist with drafting, but they shouldn't replace students' own critical thinking'. (Female, lecturer, FL1, 35–45 years old)

> 'I encourage students to use online tools, but they must understand and critically engage with their work'. (Male, lecturer, ML9, 35–45 years old)

The findings suggest that technology is valued for improving efficiency and supporting feedback processes. However, concerns remain about overreliance and reduced independent thinking. The effectiveness of technology depends on clear guidance and intentional integration into teaching practice.

Theme 5: Multilingual and discipline-specific demands complicate academic writing instruction and require integrated pedagogical responses

Lecturers consistently reported difficulties arising from multilingual classrooms and disciplinary variation. Students enter higher education with differing levels of language proficiency and familiarity with academic writing conventions:

> 'Some students struggle with basic language issues, while others struggle with disciplinary conventions. It's hard to address all these needs in one class'. (Female, lecturer, FL5, 25–34 years old)

> 'Academic writing is different in every discipline, but we don't always have the time to teach those differences explicitly'. (Male, lecturer, ML8, 35–45 years old)
>
> 'You end up spending more time on language than content in multilingual classes'. (Female, lecturer, FL5, 25–34 years old)

The findings highlight the complexity of balancing language support with disciplinary instruction. Lecturers often have to address multiple levels of need within the same classroom, which limits depth of engagement with either aspect.

Theme 6: Institutional structures and workload pressures significantly restrict pedagogical innovation in academic writing instruction

Institutional factors emerged as a major influence on teaching practices. Large class sizes, heavy workloads, rigid curricula and assessment pressures significantly shape how academic writing is taught:

> 'You may want to try new approaches, but when you have over a hundred students, practicality becomes the priority'. (Female, lecturer, FL3, 35–45 years old)
>
> 'Curriculum constraints make it hard to experiment with different teaching strategies'. (Male, lecturer, ML8, 35–45 years old)
>
> 'Sometimes we settle for what is manageable rather than what is pedagogically ideal'. (Female, lecturer, FL2, 35–45 years old)

The findings indicate that institutional conditions often limit opportunities for innovation and student-centred teaching. Lecturers frequently prioritise efficiency and assessment requirements over more developmental approaches to writing instruction.

Overall, the data show that institutional structures play a decisive role in shaping what is possible in academic writing pedagogy, often constraining even well-intentioned efforts to adopt more effective teaching practices.

Discussion

The findings of this study indicate that lecturers' approaches to academic writing instruction are shaped by the interaction among pedagogical beliefs, institutional conditions and technological resources. Traditional product-based approaches remain dominant because large class sizes, rigid curricula and assessment requirements encourage practices that prioritise correctness and adherence to disciplinary conventions (Azmar & Razali 2024).

Rather than viewing this as merely a pedagogical preference, SCT (Lantolf & Thorne 2006; Vygotsky 1978) explains that teaching practices are mediated by the institutional and social environments in which lecturers operate. From this perspective, pedagogical decisions are not solely individual choices but responses to structural conditions that shape what is feasible in practice. Consequently, lecturers adapt their instructional approaches to institutional realities rather than implementing idealised pedagogical models. The selective integration of process-oriented and genre-based approaches further reflects the principles of SCT. Through scaffolding, feedback, drafting and revision, lecturers attempt to mediate students' learning within their zones of proximal development. However, the inconsistent implementation of these strategies indicates that such mediation is often constrained by workload pressures, limited contact time and large class sizes. In SCT terms, the intended social interaction that supports learning is weakened by institutional conditions that restrict sustained engagement. This finding suggests that while lecturers recognise the value of collaborative and developmental writing practices, the absence of enabling environments limits their ability to fully realise them in practice.

The findings also extend the TPACK framework by demonstrating that technology-enhanced writing instruction depends on integrating technological, pedagogical and disciplinary knowledge. Although lecturers increasingly use learning management systems, automated feedback tools and generative AI applications, their adoption remains cautious. This ambivalence is particularly evident in their concerns about academic integrity, authorship and students' overreliance on digital tools. These concerns reflect broader scholarly debates in higher education, in which generative AI has unsettled traditional notions of authorship, originality and academic honesty. Within this context, lecturers' resistance or caution is not simply technophobic but reflects a principled concern about maintaining intellectual ownership and ensuring that students develop authentic writing competence rather than outsourced or algorithmically generated work.

From a TPACK perspective, this ambivalence highlights a critical tension: technology can enhance writing instruction only when meaningfully aligned with pedagogical intent and disciplinary expectations. The findings show that technology is often used instrumentally rather than integratively, with its effectiveness dependent on lecturers' ability to balance innovation with concerns about integrity and skill development. In this sense, AI tools function not merely as instructional aids but also as disruptive forces that require lecturers to renegotiate what counts as legitimate authorship and learning within academic writing pedagogy.

The study therefore contributes theoretically by demonstrating that academic writing instruction is shaped simultaneously by sociocultural, institutional and technological forces. Sociocultural theory explains how learning and teaching are mediated by interaction, scaffolding and institutional structures, while TPACK clarifies why effective technology integration depends on aligning technological tools with pedagogical and content knowledge. Importantly, the findings show that tensions around AI, authorship and academic integrity are now central to this intersection, requiring lecturers to continuously negotiate among supporting learning, maintaining assessment standards and preserving academic integrity. Together, these frameworks

demonstrate that improving academic writing instruction requires not only pedagogical innovation but also institutional support and critical engagement with emerging technologies that are reshaping academic authorship itself.

Conclusion

This study set out to examine lecturers' approaches to teaching academic writing in an HEI and demonstrates that the effectiveness of academic writing pedagogy is shaped by a systemic interaction among pedagogical practices, institutional structures, technological resources and contextual conditions. Grounded in SCT and the TPACK framework, the study confirms that academic writing instruction can be understood not as an individual lecturer's pedagogical choice alone but as a socially and institutionally mediated practice. From a sociocultural perspective, writing development is enabled or constrained through institutional mediation, while from a TPACK perspective, effective instruction depends on the meaningful integration of technological, pedagogical and disciplinary knowledge. The findings show that although product-based approaches remain dominant as a result of assessment regimes, curriculum rigidity and large class sizes, they are insufficient for developing the higher-order writing competencies required in contemporary higher education. While lecturers demonstrate awareness of process- and genre-based pedagogies, their limited and inconsistent implementation reflects structural constraints rather than pedagogical reluctance. This underscores a critical theoretical point: pedagogical intent is continuously reconfigured by institutional conditions, which determine what forms of teaching are practically achievable.

A key contribution of this study is its argument that institutional conditions are not peripheral but constitutive of academic writing pedagogy. Workload allocation, class sizes, professional development structures, curriculum design and access to digital infrastructure actively shape the quality and nature of writing instruction. In SCT terms, these conditions mediate the extent to which meaningful scaffolding and interaction can occur, while in TPACK terms, they determine whether technological tools are pedagogically integrated or merely superficially adopted. This shifts the focus from lecturer competence alone to the institutional ecosystems that enable or inhibit effective teaching.

The study further makes a critical contribution to technology-enhanced learning debates by showing that the pedagogical value of digital tools, including emerging AI applications, lies in their principled and intentional integration rather than their availability. Importantly, lecturers' ambivalence towards AI reflects broader tensions around academic integrity, authorship, and the protection of disciplinary knowledge production. These concerns are not peripheral but central to contemporary higher education, in which questions of originality, intellectual ownership, and legitimate academic voice are being redefined. As such, AI must be understood not only as a pedagogical tool but also as a disruptive force that requires clear institutional positioning and ethical regulation.

From a policy perspective, the findings have several direct, non-negotiable implications. Firstly, lecturer development programmes must move beyond generic training and focus specifically on strengthening pedagogical content knowledge for writing instruction, including the integration of process- and genre-based approaches. Secondly, institutions must address workload imbalances and large class sizes, as these directly undermine the possibility of meaningful feedback, scaffolding and iterative writing development. Thirdly, structured institutional support for technology integration is required, including training in TPACK-informed pedagogies and clear guidelines on the ethical use of AI in academic writing contexts. Fourthly, curriculum and assessment frameworks should be redesigned to support developmental writing practices rather than exclusively product-oriented evaluation.

Overall, the study argues that improving academic writing instruction requires a coordinated systemic response rather than isolated pedagogical adjustments. Sustainable improvement depends on aligning institutional policy, lecturer development, workload structures and technology governance within a coherent framework that prioritises writing as a developmental, scaffolded and ethically grounded academic practice. Future research should extend this work by examining how these dynamics unfold across different institutional types and by further interrogating the evolving relationship among academic writing, pedagogy and AI in higher education.

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This article includes content that overlaps with research originally conducted as part of Phethani P. Mudau's doctoral thesis titled 'Possible factors and challenges affecting first-year students' academic writing proficiency at a University of Technology in South Africa', submitted in the Department of Applied Languages, Faculty of Humanities at the Tshwane University of Technology in May 2025.The thesis was supervised by Madoda Cekiso and Itani P. Mandende. Portions of the data, analysis, and discussion have been revised, updated, and adapted for publication as a journal article. The original thesis is publicly available at: 10.13140/RG.2.2.20329.56162. The authors affirm that this article complies with ethical standards for secondary publication, and appropriate acknowledgement has been made of the original work.

Competing interest

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

CRediT authorship contribution

Phethani P. Mudau: Conceptualisation, Data curation, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. Madoda Cekiso: Supervision. Itani P. Mandende: Supervision. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication, and take responsibility for the integrity of its findings.

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Data availability

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