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Assessing AI-Supported English Academic Writing in Higher Education: A Narrative Review of Challenges, Emerging Practices, and Prospective Strategies

Randip Kaur Valdev Singh
Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia
Corresponding Author: randipvaldev@gmail.com

Harwati Hashim
Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia
Email: harwati@ukm.edu.my

Khairul Azhar Jamaludin
Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia
Email: khairuljamaludin@ukm.edu.my

Mohd Ridhuan Mohd Jamil
Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI), Malaysia
Email: mridhuan@fpm.upsi.edu.my

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Abstract

Artificial Intelligence (AI) is reshaping the assessment of English academic writing in higher education, raising questions about validity, fairness, and authorship in AI-mediated learning environments. As students increasingly write with tools such as ChatGPT, Grammarly, and QuillBot, the boundary between human and AI contributions becomes less clear, complicating how assessors interpret performance as evidence of underlying ability. Using a narrative review approach, this article synthesises research on assessing AI-supported English academic writing across three domains: challenges, emerging assessment practices, and prospective strategies. The review shows that ethical and academic integrity concerns, unequal access, algorithmic bias, pedagogical tensions around higher-order thinking, technical limitations in AI-generated text, and institutional constraints on governance and academic staff preparedness are closely interrelated. In response, emerging practices highlight a shift toward process-oriented assessment, including AI-informed feedback systems, adaptive learning tools, and structured AI literacy instruction that makes students' reasoning and decision-making more visible in assessment. Prospective strategies point toward assessment designs that position AI as scaffolded linguistic support within transparent draft-and-revise cycles, retain human judgement for evaluating complex reasoning and disciplinary communication, and embed clear institutional guidance for ethical and equitable AI use in line with SDG four on quality education and SDG 10 on reduced inequalities. Overall, this review presents an integrated synthesis of challenges, emerging practices, and prospective strategies, showing that credible assessment of AI-supported English academic writing requires process-focused design, clear ethical guidance, and institutional capacity-building across higher education.

Keywords: Academic integrity, artificial intelligence literacy, artificial intelligence-supported assessment, English academic writing, generative artificial intelligence tools, higher education, validity and fairness

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Introduction

Artificial Intelligence (AI) is reshaping the assessment of English academic writing in higher education. Tools such as ChatGPT, Grammarly, and QuillBot are now widely used for drafting, revising, and idea generation, offering increased productivity, rapid feedback, and improved linguistic accuracy. At the same time, research shows that AI-assisted writing unsettles long-standing assumptions about authorship, originality, and assessment validity, as polished texts increasingly blend human reasoning with automated suggestions. Heavy reliance on AI can weaken self-regulation and higher-order thinking, while product-oriented scoring may reward surface fluency over disciplinary understanding. For academic staff, it is increasingly complex to judge how much a script reflects students' own thinking. In addition, reliance on AI-detection systems raises further equity concerns, particularly for multilingual writers.

Across higher education institutions (HEIs), policy responses and pedagogical practices remain uneven. Some HEIs have revised integrity policies, embedded AI literacy into coursework, or developed disclosure frameworks. In contrast, others rely primarily on restriction and detection, often with mixed consequences for trust, student autonomy, and inclusion. These tensions align with global concerns reflected in SDG four on quality education and SDG 10 on reduced inequalities, primarily as AI-mediated writing interacts with existing disparities in digital access, support, and institutional capacity. Against this backdrop, assessing English academic writing in AI-supported contexts has become both a validity issue (what scores represent) and a sustainability task for higher education (how assessment can remain credible at scale).

To examine how the field is responding, this narrative review synthesises current research around three dimensions: the challenges that AI poses for fair and valid assessment, the emerging assessment practices that are beginning to address these pressures, and the prospective strategies that may guide responsible and equitable integration of AI into assessment design, pedagogy, and governance. This structure provides a coherent basis for understanding how HEIs can safeguard academic judgement while leveraging AI to support learning, transparency, and equity.

Literature Review

English Academic Writing Assessment in Higher Education

English academic writing assessment in higher education should maintain a tight construct focus while protecting equity, so decisions remain valid, reliable, and fair. Conventional criteria such as clarity, coherence, lexical range, and grammatical accuracy matter, but they should not outweigh evidence of reasoning and disciplinary communication. Messick (1989) and Weir (2005) provide a foundation for validity and fairness principles that guide this stance. Chang et al. (2025) argue that, in English-medium instruction (EMI) higher education settings, assessment of academic writing for emerging multilingual writers should prioritise cognitive and rhetorical performance over linguistic conformity. In short, assessment should measure students' intellectual work rather than language privilege.

Building on this foundation, guidelines and validated instruments are helpful only to the extent that they enable academic staff to convert constructs into classroom evidence. Scales such as the Common European Framework of Reference for Languages (CEFR) can support comparability across contexts, and tools for first-year cohorts illustrate how instructors operationalise global descriptors in local settings. However, the central design requirement is to make learning visible. Accordingly, process-rich approaches such as dynamic assessment and calibrated self-assessment can capture growth, feedback use, and decision-making more faithfully

than a single polished product. In this review, validity rests on evidence that makes reasoning visible, and frameworks count as useful only when they help academic staff elicit that evidence across contexts.

AI-Supported Writing and Pedagogical Implications

Recent advances in artificial intelligence are widening the landscape of academic writing in higher education. Tools such as ChatGPT, Grammarly, and QuillBot support idea generation, paraphrasing, citation formatting, and grammar correction. These functions can assist students who face linguistic barriers. Empirically, Kasneci et al. (2023) argue that "a strong focus on critical thinking and strategies for fact checking" is required (p. 1), while cautioning that fluency gains do not automatically translate into deeper disciplinary reasoning. In parallel, Cotton et al. (2023) warn that undisclosed AI use can threaten integrity by blurring boundaries between a student's intellectual work and the text. Complementing these concerns, Zhai et al. (2024) define overreliance as when users "accept AI-generated recommendations without question" (p. 2). Related evidence on ChatGPT use and technological dependency in academic writing has also been reported (Bouzar et al., 2024). Viewed together, the converging pattern is clear: linguistic lift without a cognitive trace poses the primary validity risk that assessment must address.

Pedagogically, this shift requires reconceptualising the writing construct so that assessment captures process and intellectual contribution rather than only a polished product. Aljuaid (2024) finds that AI can assist grammar and style but does not replace instruction in creativity, argumentation, research, and ethics. Kadwa (2025) shows that generative AI offers linguistic and structural support, especially for second-language students, yet introduces risks involving transparency, bias, and equity. Suggested responses include AI literacy, explicit disclosure of tool use, and process-oriented assessment, such as reflective portfolios and short oral defences. Consequently, the priority is on practices that document decision-making over practices that only rate final text quality.

AI-Mediated Assessment in English Academic Writing

Within AI-supported English academic writing assessment, fairness, integrity, and validity remain central. However, the construct has become more complex. From argument-based and socio-cognitive perspectives (Kane, 2013; Weir, 2005), fairness and validity now face new pressures because final texts can blend human decision-making with automated revision. This blending makes it harder to separate authentic reasoning from algorithmic fluency. As a result, surface polish may override intellectual performance. Integrity is also strained by blurred authorship and by AI detection that can misclassify multilingual students, reproducing inequities. In response, HEIs are adopting process-based approaches such as portfolios, staged drafts, reflection logs, and oral defences, and rubrics increasingly include indicators for ethical disclosure and metacognitive control of AI use. For analytic clarity, recent evidence can be organised around three assessment pressures, namely construct validity, integrity, and equity, together with the designs that plausibly mitigate each.

From a validity standpoint, Jojua (2025) and Gabay et al. (2025) show that AI tools often raise grammar and fluency without reliably representing reasoning or disciplinary competence; Jojua (2025) reports weaker synthesis, overreliance, and fabricated references, while Gabay et al. (2025) note unreliable citations, inconsistent disclosure, and limited value in detection. Kadwa (2025) similarly explains that construct validity weakens when AI-produced text is complex to

distinguish from students' own work, and Main (2025) emphasises that benefits in automation and feedback still require preserved human judgement. Accordingly, process-based designs such as portfolios, staged drafts, reflection logs, workshops, and oral defences, together with explicit AI literacy and clear disclosure, help surface authorship and protect equity, so AI remains assistive rather than substitutive and human judgement stays central. By contrast, detection-first approaches are least defensible when misclassification risk is high, whereas process-visible designs provide more reliable evidence of authorship and learning.

On integrity and ethics, Kumar et al. (2024) outline a pathway from awareness to institution-supported detection and then to pedagogy that either constrains or purposefully integrates AI with clear policy and teaching guidance. Complementarily, Hau (2025) proposes a tapas model that mixes pure human work, bounded AI use, and full AI use with transparent declaration, to help students develop both conventional and AI-enhanced competencies. At the same time, Giray et al. (2025) show that false positives and false negatives in detection disadvantage non-native English writers and fuel anxiety, and Finkel-Gates (2025) finds that efficiency gains from classroom use of ChatGPT can threaten rigour and equity unless institutions require disclosure, update integrity policies, and adopt process-oriented assessment. Overall, the implication is straightforward: staged, transparent, and pedagogy-grounded governance is more likely to maintain fairness and trust, and assessment designs that make decision-making visible are more likely to keep human judgement at the centre of AI-mediated assessment.

Methodology

This article adopts a narrative literature review to synthesise scholarship on assessment in AI-supported English academic writing in higher education. A narrative approach is appropriate because the field is conceptually diverse and spans applied linguistics, educational technology, and assessment studies. The review focuses on recent work on AI-supported composing and assessment, while earlier foundational studies on validity, fairness, and English-medium assessment provide essential conceptual grounding. This review identified and thematically synthesised relevant literature through database searches in education and applied linguistics and by screening the reference lists of included articles. Institutional and professional guidance documents were also consulted. The keywords, data sources, and inclusion criteria are summarised in Table 1.

Table 1. *Search criteria*

Category	Details
Keywords	"Artificial intelligence", "generative AI", "ChatGPT", "AI-supported writing", "English academic writing", "writing assessment", "higher education", "AI detection", "academic integrity", "fairness", "equity", "authorship integrity"
Data Sources	Scopus, Web of Science, ERIC, Google Scholar, and relevant institutional or professional guidance documents
Inclusion Criteria	Higher education; English academic writing or writing assessment; explicit AI use in writing or assessment (tools, composing, or validity, integrity, fairness/equity, pedagogy); empirical studies, conceptual papers, or guidance documents; English language publications

Results

Challenges in Assessing AI-Supported English Academic Writing

Consistent with the focus of this narrative review on challenges in assessing AI-supported English academic writing, the thematic synthesis identified six recurrent areas of concern. Debates increasingly centre on how generative tools reshape what counts as valid, fair, and authentic evidence of students' academic writing ability in higher education. Within this debate, concerns about construct validity and blended authorship are central. In traditional contexts, validity rests on the extent to which scores accurately represent students' linguistic and cognitive competence and on fair opportunities to demonstrate this competence. Messick (1989) and Weir (2005) explain that this assumption underpins conventional assessment design. Nevertheless, the expanding use of AI tools such as ChatGPT, Grammarly, and QuillBot means that written products now reflect a mix of human reasoning and automated suggestions rather than a single, traceable authorial voice. From an argument-based perspective, Kane (2013) shows that this blended authorship weakens the interpretive link between performance and underlying ability and raises questions about what constitutes authentic evidence of English academic writing proficiency in higher education.

Ethical and integrity risks create persistent uncertainty in AI-supported assessment environments. Concerns centre on blurred authorship, ghost-writing, unequal access, and opaque data practices that make it difficult to determine how far submitted work reflects students' own effort. Kadwa (2025) and Lukianenko and Kornieva (2024) report that students can submit AI-generated or heavily AI-revised texts as their own, which strains plagiarism and integrity frameworks, particularly for multilingual writers in high-stakes settings. Extending this line of concern, Hidayatullah et al. (2025) and Mpolomoka (2025) highlight algorithmic bias, uncertain validity in more subjective tasks, and risks to data protection, and note that these issues undermine students' perceptions of fairness in AI-supported assessment. Together, these studies suggest that integrity problems are structural features of AI-mediated assessment rather than isolated cases.

Tensions also arise at the pedagogical level, where AI-supported assessment sits uneasily alongside the goals of English academic writing instruction. AI tools offer rapid support for grammar and structure, yet this convenience can reduce students' independent decision-making and obscure their reasoning in final products. Wang (2025) and Kartika (2025) show that students frequently rely on AI for surface-level revisions. This reliance makes it harder for academic staff to judge higher-order thinking, critical engagement, and disciplinary literacy. Building on this, Kartika (2025) and Lukianenko and Kornieva (2024) argue that current AI systems align poorly with course aims that emphasise argumentation, critical analysis, and disciplinary voice, so assessment risks rewarding linguistic polish rather than students' underlying cognitive work and rhetorical choices.

Technical limitations in AI-generated academic texts further complicate their use in assessment. Although AI tools can produce fluent language, their output often contains rhetorical weaknesses, inconsistent tone, inaccurate or fabricated information, and citation problems that require substantial human verification. Fedoriv (2024) shows that such weaknesses can weaken alignment with disciplinary norms and reduce academic staff confidence in texts produced through heavy AI-supported drafting. Technical limitations therefore limit how far assessors can treat AI output as a stable indicator of students' disciplinary writing competence.

Inequities in digital access and cost add another layer of complexity to AI-supported assessment. Access to high-quality systems is uneven, particularly in resource-constrained institutions, which affects who can draw on AI support during drafting and revision. Vu (2024)

explains that high subscription costs, limited institutional provision, and variable feedback quality create digital divides in students' opportunities to benefit from AI assistance in writing courses. These inequities raise concerns about whether assessment outcomes reflect differences in underlying ability or differences in access to AI-mediated support.

Institutional and policy gaps shape how these challenges play out in practice. HEIs face intense pressure to harness AI for grading, feedback, and efficiency, yet governance and professional learning have not always kept pace with rapid technological change. Kadwa (2025), Miller (2024), and Mpolomoka (2025) show that many institutions lack clear frameworks for disclosure, acceptable use, data protection, and academic-staff professional development, leaving academic staff to interpret AI-influenced evidence with limited guidance. These gaps expose HEIs to inconsistent practice and deepen concerns about equity, transparency, and the defensibility of assessment decisions. In line with the focus of this narrative review, the synthesis identified six overarching challenges summarised in Table 2.

Table 2. *Challenges in AI-supported English academic writing assessment*

Theme	Issues	Implications for validity, fairness, and integrity	References
Construct validity and blended authorship	AI-generated text obscures students' cognitive contribution, weakening the link between performance and ability.	Assessment may capture AI fluency rather than reasoning, making validity evidence unstable.	Messick (1989); Weir (2005); Kane (2013)
Ethics and integrity risks	Ghost-writing, undisclosed AI use, algorithmic bias, unequal access, data concerns.	Difficult to verify authorship; bias risks for multilingual students; detection tools unreliable.	Kadwa (2025); Lukianenko & Kornieva (2024); Hidayatullah et al. (2025); Mpolomoka (2025)
Pedagogical misalignment	Students outsource revision, reducing higher-order thinking; academic staff question automated scoring and feedback.	Assessment risks capturing AI corrections instead of students' reasoning, their discipline-specific voice, or their critical engagement.	Wang (2025); Kartika (2025); Lukianenko & Kornieva (2024)
Technical limitations of AI output	Rhetorical flaws, outdated or inaccurate claims, citation inaccuracies, and inconsistent academic tone.	AI output misaligns with disciplinary norms, reducing confidence in submitted scripts.	Fedoriv (2024)
Digital access and cost inequities	Unequal access to premium tools; inconsistent institutional provision; uneven feedback quality.	Creates linguistic and revision advantages for privileged students; fairness is compromised.	Vu (2024)
Institutional and policy gaps	Weak governance, unclear rules, limited academic staff capacity, insufficient professional development, and privacy concerns.	Institutions struggle to ensure equity, transparency, and defensibility in AI-mediated assessment decisions.	Kadwa (2025); Miller (2024); Mpolomoka (2025)

Taken together, the challenges synthesised in Table 2 show that intersecting ethical, pedagogical, technical, and institutional pressures shape AI-supported English academic writing assessment and strain traditional assumptions of validity and fairness. When integrity frameworks, technological infrastructures, policies, and academic-staff capacity do not keep pace with rapid

developments in generative AI, uncertainties over authorship, coherence, and equitable access intensify, making AI-mediated writing less reliable as evidence of students' learning and achievement.

Emerging Assessment Practices in AI-Supported English Academic Writing

In line with this narrative review's focus on current assessment approaches, the thematic synthesis of the included studies highlighted four recurrent directions in how HEIs are redesigning assessment in AI-supported English academic writing. As assessment in this area becomes more embedded in higher education, practice is shifting from simply permitting or banning AI tools toward designs that make students' reasoning and decision-making more visible. A prominent direction is process-oriented assessment, in which evaluation focuses on how students plan, draft, revise, and justify their engagement with AI across multiple stages of composition. Academic staff are redesigning assignments to include staged drafting, reflective commentary, in-class writing, and oral defences so that assessment captures thinking, not only polished final products. Kadwa (2025) argues that integrity and validity are easier to safeguard when assessment evidence includes students' reasoning and revision processes, since this links AI use to documented intellectual work rather than unseen assistance.

Another strand of practice involves the deliberate integration of generative AI tools within English academic writing assessment. Rather than treating AI as an external threat, some courses invite students to experiment with different tools and to reflect on their suitability for specific writing purposes. Foung et al. (2024) describe a redesigned English course in Hong Kong in which students used both earlier and newer forms of AI to produce and reflect on academic writing. An analysis of written reflections and focus group interviews showed that students developed discernment about tool selection, but also highlighted disparities between free and premium versions. In parallel, institutions are embedding generative AI into assessment systems to provide immediate feedback, stimulate motivation, and extend formative evaluation. In a review of 24 studies, Alonzo et al. (2024) identify applications such as automated item generation, conversational agents, adaptive testing, self-assessment, and speech recognition and note gains in responsiveness, efficiency, and engagement, while emphasising the need for sustained institutional support and academic-staff training.

A further strand links AI-supported assessment to personalised and adaptive learning in English academic writing. AI-based tools deliver targeted feedback, adjust task difficulty, and support self-paced progression, which can enhance students' engagement with writing. Dong (2023) reports significant improvements in students' writing performance following the use of an AI tool that provided immediate feedback and guided practice, concluding that adaptive mechanisms can strengthen both development and motivation. Alonzo et al. (2024) similarly document AI applications that support adaptive assessment through self-assessment and dynamic task adjustment based on students' responses, with reported benefits such as more precise feedback and improved efficiency. These developments position AI as an active mediator of students' learning trajectories, while simultaneously increasing dependence on the design quality and reliability of the underlying technological systems.

A related strand focuses on ethical and equitable use of AI by embedding AI literacy and critical awareness directly into English academic writing assessment. HEIs are developing curricular frameworks that train students to use AI responsibly, design effective prompts, evaluate AI-generated content, and uphold academic integrity. He and Tinsley (2025) describe an AI literacy

programme for English for Academic Purposes students at a joint-venture, English-medium instruction institution in China and show that structured instruction can foster ethical and critical engagement with generative AI tools, positioning AI literacy as both a pedagogical goal and an assessable outcome. Equity concerns also shape these initiatives. Foung et al. (2024) note that, even where students have the flexibility to use multiple AI tools, inequalities between free and subscription-based versions persist, and call for assessment frameworks that acknowledge such disparities to avoid reinforcing digital divides. Across these strands, four closely related practices emerge, and Table 3 synthesises them as directions in emerging assessment design for AI-supported English academic writing.

Table 3. *Emerging assessment practices in AI-supported English academic writing*

Practice	Concise focus in assessment	References
Process-oriented assessment approaches	Multi-stage tasks that foreground planning, drafting, revision, and reflection to make students' writing decisions and AI use visible	Kadwa (2025)
Integration of generative AI tools in assessment	Intentional use of multiple AI tools for writing and feedback, with students comparing tools, justifying choices, and reflecting on outcomes	Foung et al. (2024); Alonzo et al. (2024)
Personalised and adaptive assessment mechanisms	AI-mediated feedback and task adjustment that respond to students' performance and support self-paced learning	Dong (2023); Alonzo et al. (2024)
Ethical and equitable use of AI	AI literacy, integrity, and equity embedded in curricula and assessment, with explicit attention to tool access and responsible use	He and Tinsley (2025); Foung et al. (2024)

These emerging assessment practices show how HEIs are adapting existing designs to make students' reasoning and decision-making more visible in AI-supported English academic writing. Process-oriented approaches, integration of generative AI tools, personalised and adaptive mechanisms, and AI literacy initiatives reflect current efforts to align assessment with rapidly evolving writing technologies. At the same time, the reported practices reveal ongoing dependencies on institutional capacity, academic staff expertise, and equitable access to AI tools.

Prospective Strategies for Assessment in AI-Supported English Academic Writing

Building on the identified challenges and emerging practices, the thematic synthesis of the included studies points to four strategic priorities for HEIs. Across the reviewed work, institutions are adopting approaches that respond to ethical, pedagogical, technical, and governance concerns while seeking to preserve the validity and fairness of AI-supported English academic writing assessment. Using AI tools as scaffolds for English academic writing assessment, rather than as substitutes for students' ideas, is a central strategic orientation. AI applications now play an integrated role in students' everyday writing, particularly for language accuracy, coherence, and referencing. Andika et al. (2025) and Munawwaroh and Fahreza (2025) show that tools such as Grammarly, QuillBot, ChatGPT, and Mendeley support grammar checking, paraphrasing, citation management, and flow improvement. Students widely use these tools.

Working with Indonesian postgraduates, Andika et al. (2025) report that AI tools can support clarity, organisation, and plagiarism prevention. However, they stress that human oversight is needed to preserve originality and critical thinking, and they recommend guided and responsible AI use in higher education. Munawwaroh and Fahreza (2025) similarly find that grammar checkers and writing assistants provide real-time personalised feedback and support self-regulated learning while allowing academic staff to focus on higher-order skills. Yet, they warn against over-reliance

and uneven access. Dong (2023) adds evidence that AI-assisted feedback can be integrated into teaching and assessment to improve learning gains, showing that students using an AI-based tool in an EFL academic writing class achieved significant improvements supported by immediate, individualised feedback. Collectively, these studies support strategies in which AI tools are embedded within formative cycles of drafting, feedback, and revision, while academic staff retain responsibility for interpreting outputs, setting clear boundaries on tool use, and guiding students' next steps.

Pedagogical approaches that keep human instruction central while using AI selectively form an additional strategic focus. Evidence from higher education contexts shows that AI tools are practical for grammar and basic structure but struggle with coherence, argumentation, and disciplinary reasoning. Kartika (2025) reports that although generative AI tools such as Grammarly and GPT-based platforms save time and support surface-level revision, they cannot replace the nuanced judgment needed to evaluate higher-order writing skills. Institutional responses similarly reflect an effort to balance access with the development of critical and independent writers. Aljuaid (2024) shows that HEIs have adopted varied stances, ranging from clarifying integrity policies to regulating usage or, in some cases, banning ChatGPT to safeguard critical thinking. Complementing these trends, Dong (2023) demonstrates that structured AI integration in an English as a Foreign Language academic writing course can enhance learning when human guidance remains central, as students receiving AI-assisted feedback within a guided pedagogy outperformed those in conventional instruction.

Embedding AI literacy as an explicit component of English academic writing assessment provides another strategic direction. He and Tinsley (2025) argue that because generative AI now has a pervasive role in academic writing, students require structured instruction on its strengths, limitations, and ethical use. Their AI literacy programme trains students to design prompts, evaluate AI output, and safeguard academic integrity, demonstrating how responsible tool use can become an assessable learning outcome. Extending this perspective, Liu et al. (2023) combine AI feedback with guided reflection through the Reflective Thinking Promotion Mechanism-Based, AI-Supported English Writing model (RTP-AIEW), showing that students who engaged in structured reflective cycles achieved higher self-efficacy, lower cognitive load, and stronger writing performance. These findings indicate that AI literacy strategies are most effective when students are required not only to use AI tools but also to explain, justify, and critically interrogate how these tools contribute to their writing, so reflective and ethical engagement becomes part of what assessment captures.

Maintaining equilibrium between AI assistance and traditional instruction remains a strategic priority. While AI can enhance efficiency and linguistic accuracy, it cannot replicate the creativity, originality, and critical judgement cultivated through human-guided writing instruction. Reviewing institutional responses, Aljuaid (2024) notes persistent concerns about AI's impact on students' creativity and critical thinking, even in institutions that permit AI under regulated conditions. Kartika (2025) similarly emphasises that AI should complement, not replace, academic staff judgement, particularly when evaluating complex writing tasks that require disciplinary voice and critical engagement. HEIs are actively revising policies to navigate this balance, yet persistent variation across classrooms and departments underscores the need for clearer institutional frameworks. Across these studies, maintaining equilibrium between AI tools and traditional instruction emerges as a strategy for ensuring that technological assistance strengthens rather than

weakens academic writing development. Table 4 synthesises these strategic directions as prospective strategies for AI-supported English academic writing assessment in higher education.

Table 4. *Prospective strategies for AI-supported English academic writing assessment*

Strategy	Rationale in assessment	Implications for HEIs	References
Position AI as a scaffold rather than a substitute	Use AI to support linguistic accuracy, coherence, and feedback while preserving students' ownership of ideas and critical thinking.	Embed AI tools in formative drafting and feedback cycles; define clear boundaries for acceptable tool use; keep human judgement central in grading.	Andika et al. (2025); Munawwaroh & Fahreza (2025); Dong (2023)
Strengthen pedagogical approaches that foreground higher-order writing	Reserve AI for surface-level support while human instruction targets reasoning, organisation, and disciplinary argumentation.	Design tasks that require students to demonstrate coherence, critical engagement, and disciplinary voice; align classroom practices and integrity policies with these goals.	Kartika (2025); Aljuaid (2024); Dong (2023)
Build AI literacy and ethical awareness among students and academic staff	Treat AI literacy, reflection, and integrity as explicit learning outcomes within English academic writing courses.	Develop programmes that train students and academic staff in prompt design, critical evaluation of AI output, and ethical use; incorporate documentation and justification of AI use into assessment.	He & Tinsley (2025); Liu et al. (2023)
Maintain equilibrium between AI assistance and traditional instruction	Balance efficiency gains from AI with the need to preserve human judgement, creativity, and critical thinking.	Frame AI as a bounded resource in institutional policies; ensure academic staff remain final decision-makers on originality and quality; monitor unintended effects on creativity and critical thinking.	Aljuaid (2024); Kartika (2025)

Considered as a whole, these prospective strategies suggest that sustainable innovation in AI-supported English academic writing assessment depends on more than the technical capabilities of AI systems. At the same time, uneven resources, workload pressures, and varied policy environments across HEIs constrain the feasibility of these strategies. Ultimately, the future of English academic writing assessment lies in developing frameworks that align pedagogical integrity with responsible AI use, so that technology complements rather than replaces the intellectual and ethical dimensions of academic writing.

Discussion

The reviewed challenges show that AI-supported English academic writing assessment disrupts the foundational assumptions on which validity and fairness rest. When written work reflects a mix of human reasoning and automated suggestions, the interpretive link between performance and underlying ability becomes less stable, making it difficult to determine what assessment evidence represents. Ethical concerns, including blurred authorship, unequal access, algorithmic bias, and fragile integrity frameworks, further weaken confidence in students' contributions and in assessment decisions. Pedagogically, AI's growing role in drafting and revision risks shifting attention from reasoning, argumentation, and disciplinary literacy toward surface-level linguistic accuracy, creating tensions between the efficiency AI offers and the cognitive outcomes higher education values. Technical instability and unequal access also restrict the defensibility of AI-mediated assessments, particularly for students and institutions with limited resources. Kadwa (2025) and Mpolomoka (2025) document how the absence of coherent

governance, inconsistent policies, and limited academic staff preparedness heighten these vulnerabilities by leaving academic staff without clear guidance on how to interpret AI-influenced evidence. Overall, these interacting challenges suggest that the problem is not simply the presence of AI in writing assessment but the misalignment between rapidly evolving technologies and the ethical, pedagogical, technical, and policy structures required to support fair and trustworthy academic judgement.

In response to these pressures, emerging assessment practices signal a gradual shift from surveillance and prohibition toward designs that make students' thinking and decision-making visible. Process-oriented tasks such as staged drafting, reflective commentaries, in-class writing, and oral defences reposition assessment away from judging a single polished script toward tracing how ideas evolve, undergo revision, and receive defence, which strengthens the evidential basis for claims about reasoning and disciplinary literacy. Dong (2023) demonstrates that such process-oriented designs, combined with AI-assisted feedback, can improve learning gains when students receive immediate, individualised responses on their drafts. Liu et al. (2023) provide evidence that integrating generative AI into feedback systems and adaptive platforms can position AI as a mediator of learning rather than only a source of misconduct, particularly when tools scaffold drafting, personalise support, and prompt reflection on feedback. At the same time, these developments introduce a new layer of dependency on institutional capacity, infrastructure, and AI literacy, since process portfolios, adaptive systems, and AI literacy tasks are most feasible in settings with stable technological support and academic staff expertise. In this sense, the promise of richer, more transparent assessment is closely tied to questions of resourcing and governance, because the same innovations that deepen engagement and make authorship more visible can also widen gaps between well-resourced and less-resourced institutions if implementation and access are uneven.

Building on these evolving practices, studies on prospective strategies show a move away from ad hoc tool use toward more principled frameworks that define how and why instructors use AI in assessment. Andika et al. (2025) report that Grammarly, QuillBot, ChatGPT, and related tools are most defensible when framed as scaffolds for linguistic accuracy and formative feedback within cycles of drafting, feedback, and revision, while academic staff retain responsibility for interpreting outputs and guiding higher-order thinking. He and Tinsley (2025) emphasise that pedagogical designs that keep complex reasoning, coherence, and disciplinary voice under human judgement, together with AI literacy initiatives that require students to document and justify their AI use, point towards assessment constructs that explicitly include responsible tool mediation rather than silently ignoring it. At the policy level, institutional responses that permit but bound AI use suggest that equilibrium, rather than full endorsement or outright prohibition, is emerging as a plausible governance stance. In this way, these strategic directions recast AI not as an external threat to validity but as a managed resource whose educational value depends on transparent task design, clear disclosure expectations, and sustained capacity building for academic staff and students.

Overall, the interplay between the challenges, emerging practices, and prospective strategies reviewed in this article suggests that the core task in assessing AI-supported English academic writing in higher education is constructive realignment rather than simple regulation. The challenges clarify where validity, fairness, and integrity are most at risk; the emerging practices demonstrate how process-oriented tasks, adaptive feedback, and ethical AI literacy can begin to repair the evidential chain between students' reasoning and their written products. The

prospective strategies show that these designs become sustainable when institutions deliberately position AI as scaffolded support, invest in academic staff and student capacity, and embed transparent governance for disclosure and equity. Considered together, the review points toward an assessment future in which AI is neither ignored nor allowed to dominate. Still, sustainable frameworks will keep human judgement, disciplinary thinking, and ethical responsibility at the centre while deliberately integrating AI into English academic writing assessment in higher education.

Limitations and Recommendations

This narrative review reflects the scope, language, and channels used to access evidence. The synthesis draws mainly on published studies in English on AI-supported English academic writing assessment in higher education, so it may miss relevant work reported in other languages or published in local institutional documents or non-indexed outlets. This language and publication bias may underrepresent innovations and practices emerging in contexts where English is not the primary medium of scholarly dissemination. Looking ahead, future research could build on this review in several complementary directions. One line of work could empirically examine assessment designs in specific courses or programmes, including how academic staff and students experience these designs over time. A second line could extend the focus beyond English academic writing to discipline-specific writing, multimodal assignments, and other forms of assessment to understand how AI reshapes assessment constructs across different fields and genres of scholarly communication.

Implications

The implications of this narrative review extend beyond individual assessment tasks to wider decisions about curriculum, governance, and quality assurance in higher education. For academic staff and programme coordinators, the findings highlight the need to redesign assessment policies and course documentation so that these documents anticipate AI use, require transparent declarations, and evaluate it as part of students' academic literacy development rather than treat it as invisible or taboo. Institutions can support this by embedding AI-related concerns into professional learning, workload planning, and assessment moderation, enabling staff to exercise informed judgement over AI-mediated texts. At institutional and system levels, HEIs and quality assurance bodies can incorporate AI-specific criteria into existing frameworks for assessment standards, data governance, and equity monitoring, aligning tool adoption with broader commitments to fairness, access, and academic integrity. In this view, AI-supported English academic writing assessment is sustainable only when institutions treat it as a cross-cutting governance and capacity-building issue, rather than a technical add-on at the level of individual courses.

Conclusion

This narrative review examined how AI-supported English academic writing is reshaping assessment in higher education by synthesising key problems, emerging practices, and prospective strategies. Its main contribution is a three-layer synthesis that connects systemic vulnerabilities, assessment designs, and institutional strategies to core concerns about validity, fairness, and academic integrity. Rather than treating AI solely as a threat, the review argues for assessment designs that foreground students' reasoning, drafting processes, and ethical engagement, supported

by transparent governance and sustained capacity-building for academic staff. Aligned with SDG four on quality education and SDG 10 on reduced inequalities, it positions AI as carefully managed support within assessment approaches that keep human judgement, disciplinary thinking, and ethical responsibility central to English academic writing in higher education.

About the Authors

Randip Kaur Valdev Singh is a doctoral researcher at the Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia. Her research interests include English as a Second Language (ESL) education, English-medium instruction (EMI), and the internationalisation of higher education, with related interests in language assessment and equity in higher education. ORCID: https://orcid.org/0009-0002-2463-7092

Harwati Hashim is a faculty member at the Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia, and a member of the University Research Group on EduXcellence: Development of Innovative Curriculum and Pedagogy. Her research interests include English as a Second Language (ESL) education, mobile and technology-enhanced language learning (MALL), and technology acceptance in education. ORCID: https://orcid.org/0000-0002-8817-427X

Khairul Azhar Jamaludin is a faculty member at the Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Malaysia, and a member of the University Research Group on ELITEE: Enhanced Learning for Inclusive Transformation of Education Experience. His research interests include educational inclusion, technology-enhanced learning, and equity-oriented educational innovation. ORCID: https://orcid.org/0000-0001-9709-6261

Mohd Ridhuan Mohd Jamil is a faculty member at the Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI), Malaysia. He is an expert in design and development research and the Fuzzy Delphi Method (FDM). His research interests include technical and vocational education and training (TVET), engineering education, curriculum development, and generic skills and values. ORCID: https://orcid.org/0000-0002-1330-3751

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References

Aljuaid, H. (2024). The impact of artificial intelligence tools on academic writing instruction in higher education: A systematic review. *Arab World English Journal (AWEJ) Special Issue on ChatGPT (April 2024)*, 26–55. https://doi.org/10.24093/awej/ChatGPT.2

Alonzo, D., Abril, J. M. V., & Oo, C. Z. (2024). *The use of artificial intelligence in English language assessment: Empirical evidence and future directions* [Preprint]. SSRN. https://doi.org/10.2139/ssrn.4695394

Andika, J. D., Waly, M. M., Yulia, Y., & Reswari, G. P. A. (2025). Scrutinizing English academic writing skills: Indonesian postgraduate students' challenges and strategies in an AI-empowered era. *JOLLT Journal of Languages and Language Teaching, 13*(2), 551–567. https://doi.org/10.33394/jollt.v13i2.12884

Bouzar, A., EL Idrissi, K., & Ghourdou, T. (2024). ChatGPT and academic writing self-efficacy: Unveiling correlations and technological dependency among postgraduate students. *Arab World English Journal (AWEJ) Special Issue on ChatGPT (April 2024)*, 225–236. https://doi.org/10.24093/awej/ChatGPT.15

Chang, D. H., Chen, Q., & Lin, A. M. Y. (2025). Translingual approach in assessing academic writing for emerging multilingual writers in EMI higher education. *Linguistics and Education, 87*, 101403. https://doi.org/10.1016/j.linged.2025.101403

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International, 61*(2), 228–239. https://doi.org/10.1080/14703297.2023.2190148

Dong, Y. (2023). Revolutionizing academic English writing through AI-powered pedagogy: Practical exploration of teaching process and assessment. *Journal of Higher Education Research, 4*(2), 52–57. https://doi.org/10.32629/jher.v4i2.1188

Fedoriv, Y. (2024). Challenges in AI-assisted academic writing: A case study. *Innovations in Language Teaching Journal, 1*(1), 35–50. https://doi.org/10.53463/innovltej.20240284

Finkel-Gates, A. (2025). ChatGPT in academic assessments: Upholding integrity. *Journal of Learning Development in Higher Education, (36).* https://doi.org/10.47408/jldhe.vi36.1491

Foung, D., Lin, L., & Chen, J. (2024). Reinventing assessments with ChatGPT and other online tools: Opportunities for GenAI-empowered assessment practices. *Computers & Education: Artificial Intelligence, 6*, 100250. https://doi.org/10.1016/j.caeai.2024.100250

Gabay, R. A. E., Funa, A. A., & Ricafort, J. D. (n.d.). Generative artificial intelligence (GenAI) for academic writing in higher education: A scoping review of applications, challenges, and implications [Preprint]. *Research Square*. https://doi.org/10.21203/rs.3.rs-7440784/v1

Giray, L., Sevnarayan, K., & Ranjbaran Madiseh, F. (2025). Beyond policing: AI writing detection tools, trust, academic integrity, and their implications for college writing. *Internet Reference Services Quarterly, 29*(1), 83–116. https://doi.org/10.1080/10875301.2024.2437174

Hau, M. F. (2025). Writing with machines? Reconceptualizing student work in the age of AI. *Frontiers in Communication, 10*, 1598988. https://doi.org/10.3389/fcomm.2025.1598988

He, H., & Tinsley, J. (2025). Enhancing EAP students' academic writing and AI literacies: Practice at a transnational university in China. *Journal of China Computer-Assisted Language Learning, 5*(2), 243–259. https://doi.org/10.1515/jccall-2025-0004

Hidayatullah, M. H., Suryati, N., Cahyono, B. Y., & Mawaddah, N. (2025). A systematic literature review of artificial intelligence in academic writing: Challenges and opportunities. *Journal of Research on English and Language Learning (J-REaLL), 6*(2), 249–266. https://doi.org/10.33474/j-reall.v6i2.23821

Jojua, N. (2025). Artificial intelligence and academic writing: A case study of STEM undergraduates. *British Journal of Multidisciplinary and Advanced Studies, 6*(5), 65–74. https://doi.org/10.37745/bjmas.2022.04942

Kadwa, M. S. (2025). Written assignments and the ethical considerations of artificial intelligence in higher education. *International Journal of Linguistics, Literature and Translation, 8*(9), 254–257. https://doi.org/10.32996/ijllt.2025.8.9.27

Kane, M. T. (2013). Validating the interpretations and uses of test scores. *Journal of Educational Measurement, 50*(1), 1–73.

Kartika, S. (2025). The role of generative AI in automating English writing assessment: Benefits and challenges. *LinguaEducare: Journal of English and Linguistic Studies, 2*(1), 1–10. https://doi.org/10.63324/lec.2v.1i.63

Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., … Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, 102274. https://doi.org/10.1016/j.lindif.2023.102274

Kumar, R., Eaton, S. E., Mindzak, M., & Morrison, R. (2024). Academic integrity and artificial intelligence: An overview. In S. E. Eaton (Ed.), *Second handbook of academic integrity*. Springer. https://doi.org/10.1007/978-3-031-54144-5_153

Liu, C., Hou, J., Tu, Y. F., Wang, Y., & Hwang, G. J. (2023). Incorporating a reflective thinking promoting mechanism into artificial intelligence-supported English writing environments. *Interactive Learning Environments, 31*(9), 5614–5632. https://doi.org/10.1080/10494820.2021.2012812

Lukianenko, V., & Kornieva, Z. (2024). Generative AI in student essays: English teachers' perspectives on effective assessment methods. *XLinguae, 17*(4), 235–250. https://doi.org/10.18355/xl.2024.17.04.14

Main, P. (2025). AI and student assessment. *International Journal of Science and Research Archive, 16*(2), 305–313. https://doi.org/10.30574/ijsra.2025.16.2.2225

Messick, S. (1989). Validity. In R. L. Linn (Ed.), *Educational measurement* (3rd ed., pp. 13–103). Macmillan.

Miller, W. (2024). Adapting to AI: Reimagining the role of assessment professionals. *Intersection: A Journal at the Intersection of Assessment and Learning, 5*(4), 99–113. https://doi.org/10.61669/001c.121439

Mpolomoka, D. L. (2025). Utilizing artificial intelligence for assessment in higher education. *Pedagogical Research, 10*(3), em0243. https://doi.org/10.29333/pr/16677

Munawwaroh, K., & Fahreza, M. (2025). Integrating AI tools in English writing classes to enhance student accuracy and coherence. *The Journal of Academic Science, 2*(5), 1507–1516. https://doi.org/10.59613/vnnrve23

Vu, T. N. (2024). The application of artificial intelligence in teaching writing skills to English major students at the National Academy of Public Administration: Benefits and challenges. *Viện Đại Học Mở Hà Nội*, 36. https://doi.org/10.59266/houjs.2024.457

Wang, Y. (2025). Applying AI to English speaking and writing instruction in higher education: A SWOT analysis. *SHS Web of Conferences*, *220*, 04018. https://doi.org/10.1051/shsconf/202522004018

Weir, C. J. (2005). *Language testing and validation: An evidence-based approach*. Palgrave Macmillan. https://doi.org/10.1057/9780230514577

Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: A systematic review. *Smart Learning Environments*, *11*, 28. https://doi.org/10.1186/s40561-024-00316-7