

# Embedding ChatGPT and process writing in academic writing: Identity and integrity

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This article explores the impacts of generative artificial intelligence (GenAI) on undergraduate students' writer identities and skills, with a view to considering how the technology can be integrated into writing instruction. We embedded process writing alongside the use of GenAI in an undergraduate academic writing course and gathered written reflections from the students. We explore how the student participants understood GenAI in relation to their developing writer identity and their understandings of academic integrity. A focus group was conducted with the teaching team which explored their reactions to teaching with GenAI and their views on the potential strengths and drawbacks of the software. Drawing on the student and teacher data, we conclude by sharing recommendations for using GenAI within academic literacies instruction and discussing an emerging framework for critical AI literacy. This is the second half of a two-part article; we encourage readers to also read the companion paper, which shares students' reactions to using GenAI and process writing in the course as well as reflections on the cognitive side of writing.

**Keywords:** generative artificial intelligence, academic literacies, writer identity, academic integrity, higher education.

## 1. Introduction

Higher education is grappling with a new era of ubiquitous, freely accessible, generative artificial intelligence (GenAI) software. Since the release of OpenAI's ChatGPT in 2022, educators and institutions have been rapidly working to design policies for teaching and research, understand how GenAI fits into academic integrity, and prepare students and staff for interacting with it. The literature on GenAI in teaching, learning, and assessment has rapidly increased over the past couple of years, as has the spread and availability of new AI programs. Discussions of GenAI encompass a range of stances, from embracing its potential to cautioning against its use (see Crawford et al., 2023; van Dis et al., 2023).

In this paper, we focus on ChatGPT, a large language model (LLM) trained on a vast, yet undisclosed, dataset of sources available online. While ChatGPT is not officially used by our institution, it was chosen for this project due to its status as a well-known option in the GenAI market. Its responses to user prompts are "plausible-sounding" (Thorp, 2023, p. 313) and presented through grammatically accurate, "authoritative prose" (van Dis et al., 2023, p. 225). Through further prompts, users can craft and refine the content the GenAI produces – for instance, to

provide further elaboration, eliminate or reduce certain aspects, or emphasise a particular idea. It may also be prompted to provide links to online sources as well as academic articles and books, but its reliability in providing answers is questionable (see Reader & Drum, 2025), and it is known to fabricate or hallucinate information (Cheng et al., 2026).

There are also concerns about the ethics of using the software for teaching, learning, and research. The advent of GenAI presents new questions and challenges for academic writing instruction and for the development of learners' writing skills, of which integrity forms a core component. The implications for student work are obvious: because of their vast training databases, AI systems can produce seemingly believable responses to questions and even write full texts if prompted effectively. This ability impacts the teaching of academic writing and research, in that the "ease of generating sophisticated texts using AI may lead students to rely on technology over developing their own analytical and writing skills" (Hutson, 2024, p. 21).

As writing instructors, we bring an allied question to the table: how does GenAI affect the development of student writers' identities and their socialisation into disciplines of practice? For Burgess and Ivanič (2010), "writing demands in educational settings are also identity demands" (p. 228). Writers negotiate between different socially available possibilities for identity, choosing how to present their ideas, worlds, and stances in their texts (Burgess & Ivanič, 2010). Ideally, writer identity is developed in tandem with growing awareness of one's discipline of practice, including how knowledge is established, communicated, and negotiated within it. However, GenAI is a writer with a voice but not an identity. It pulls together content from texts produced by myriad human authors, as well as AI itself. While it can be prompted to produce text in different tones – such as different levels of formality – it is not situated within a social context and therefore cannot speak from a particular stance or location.

Matters of identity and the social contexts of disciplinary learning align closely with the academic literacies model, making this paper relevant to academic literacies educators with an interest in GenAI. Subject experts eager to explore how such technology could affect disciplinary literacies development are also welcomed readers. Qualitative inquiries exploring students' writer identities and their understandings of academic integrity in the era of GenAI is a focus that has not yet garnered much attention in recent literature, particularly in the New Zealand higher education context.

Our study involved redesigning a module in an academic writing course to pair a process writing approach with the use of ChatGPT. We gathered qualitative data from students and teachers involved in the course. Analysis yielded such a wealth of insights that two articles were produced to disseminate them. A companion paper shares students' reactions to GenAI and process writing as part of the new module, with a particular focus on how GenAI affected their thinking throughout the writing process (Gurney & Busteed, 2026).

Here in the second article, we analyse qualitative data from students and teachers who worked with GenAI in the course. We explore how the student participants understood GenAI in relation to their developing writer identity and their understandings of academic integrity. Findings from the teachers' focus group, which examined the issues from their perspectives, also factor into this paper. Our analysis and discussion respond to the following exploratory research questions:

1. How does working with GenAI affect students' writer identity and understandings of integrity?
2. How might GenAI be incorporated effectively into writing instruction?

The next section explores literature on writer identity and academic integrity. Then our findings draw stronger connections between these topics and the role of GenAI in higher education.

## 2. Literature review

### 2.1. Writer identity

Within educational contexts, identities are transitory; students move into new locations and ways of studying, new fields out of secondary school, and towards a new profession (or out of an old one). They begin as novices and eventually move towards higher levels of expertise in their fields. Writing, as one of the key means of learning and communicating in higher education, is also an arena in which students develop new identities. Writer identity encompasses “the ‘self’ that a person brings to the act of writing, the ‘self’ she constructs through the act of writing, and the way in which the writer is perceived by the reader(s) of the writing” (Burgess & Ivanič, 2010, p. 232). In other words, writing is not just about conveying information. Writing communicates who we are, what we think and know, whose work we have engaged with, and how we position ourselves in relation to our audiences. From a sociocultural stance, identity is not static or unitary, and it is negotiated at the intersection of different factors: writers’ past experiences, their perceived knowledge of what they are writing about, what they are reading, their confidence with the text type, and how they think their audience might perceive them (see Eyres, 2017; Ivanič, 1994). As writers make choices and craft their texts, these factors come to the fore in different ways.

The early stages of developing writer identity, particularly in a new context with new demands, can be challenging and conducive to survival strategies, such as poor paraphrasing and possible plagiarism. Starfield (2002) saw plagiarism caught up with limited writer identity. Plagiarism, she argued, can “be understood developmentally as *patchwriting* – a survival strategy rather than a conscious effort to deceive – as students struggle to develop an authoritative identity in an overpopulated discursive universe in which words seem to belong to more powerful others” (p. 126, emphasis in original). The academic communities that students join in higher education constitute a “profoundly textual universe ... where texts circulate as currency” (Starfield, 2002, p. 125). Developing an effective identity within these overpopulated discursive worlds involves, amongst other things, understanding academic integrity norms.

It is important to distinguish between *voice* and *writer identity* here as some GenAI programs purport to match a writer’s voice if provided with samples of previous writing. They can also be prompted to sound more human or to match a writing style. However, the ‘self’ that Burgess and Ivanič (2010) refer to as part of writer identity is deeper than the linguistic features of an individual’s writing. It also involves the disciplinary knowledge, experiences, and perspectives one brings to a piece of writing. No two individuals have the same trajectories as writers. Writing is as much about *what* the writer chooses to present as *how* it is written, both of which convey something about the writer (Ivanič, 1994). For these reasons, we chose to have students work with GenAI-produced content in our course, rather than have them use the technology for proof-reading, feedback, or to match their writing style. Working with ChatGPT-generated drafts requires writers to think carefully about structure and presentation, including whether or how to incorporate the GenAI’s content. This is a challenging but widespread use of the software, particularly in academic contexts, which is why we wished to guide our students through it in an open and reflective way. This strategy led students to draw connections between the use of GenAI, their writer identity, and their understandings of integrity.

### 2.2. Academic integrity in higher education

Academic integrity concerns acting honestly and ethically in the preparation, submission, and publication of academic work. The Australian Tertiary Education Quality and Standards Agency (2022) defined it as the “expectation that teachers, students, researchers and all members of the academic community act with: *honesty, trust, fairness, respect and responsibility*” (para. 1, emphasis in original). For McGowan (2005), writing from the perspective of an experienced learning advisor, academic integrity involves “a person’s integration into the academic tradition of

research and scholarship” (p. 51). Marsh and Campion (2018) drew attention to behaviours associated with observing academic integrity. They wrote that academic integrity means avoiding “intentional, unintentional and self-plagiarism through correct citation and referencing practices [...] an essential basic responsibility for students” (p. A214). Among its recommendations for upholding academic integrity, the New Zealand Qualifications Authority (2025) highlighted the importance of incorporating it into teaching and learning in higher education contexts, connecting it to related assessments, and including some focus on the use of GenAI.

It is unreasonable to assume students are aware of what academic integrity means, or how to avoid breaches, when they begin their tertiary studies. As such, academic integrity involves skills that should be *taught* to students. Through the following argument, McGowan (2005) supported a pedagogical rather than punitive approach:

The norms and values, and associated rules of conduct that have been developed within the academic tradition of scholarly activity and research are not self-evident. To trace and recall all the writings that have in some way combined to influence their thinking is not something that comes naturally to newcomers. (p. 51)

Çelik and Razı (2023) and Marsh and Campion (2018) support this stance, seeing punitive approaches as generating climates of fear which are ineffective in producing the desired outcomes. Rather than simply telling students to avoid plagiarism or applying punitive measures as the main method of teaching, they support more comprehensive approaches to teaching students about academic integrity, including what it is and why it exists. This can include using sources and applying referencing conventions accurately (Pecorari & Petrić, 2014).

Academic integrity has attracted research attention for many years, long before the introduction of GenAI. Widespread concerns about breaches of integrity are not new. The infamous essay mills used for contract cheating provide a salient example, where employees ghost-write original pieces of work for a fee (Gaumann & Veal, 2024). Interestingly, Gaumann and Veal (2024) suggested that essay mills themselves are increasingly turning to AI systems to produce content, further muddying the waters of academic integrity. It also seems likely that some students are now turning to GenAI to achieve the same goals as they previously sought to achieve using essay mills.

### 3. Methods

Our research grew out of an intensive academic writing course delivered over four weeks in January–February 2024 at a New Zealand university. Offered four times a year, this course uses the same curriculum across all iterations, including the two intensive summer sessions. As an elective course, it is typically taken at the beginning of undergraduate study. It draws students from across disciplines of study available through the institution and aims to help them with their transition into the higher education environment. In this paper, we draw on two sources of data: reflective writing completed by students enrolled in the course ( $n = 35$ ), and reflections from a focus group discussion involving the course’s teaching team ( $n = 4$ ). The student participants were new to tertiary education; many recently completed secondary school while others were returning to formal study after a period in the workforce.

Following the academic literacies model, the course aims to socialise students into academic writing in a way that is sensitive to different academic disciplines (Lea & Street, 1998; Sheridan, 2011). Academic literacies experts assert that reading and writing practices are connected to meaning making, identity, and various influences on learning (Lea & Street, 1998, 2006; Lillis & Scott, 2007; Sheridan, 2011). When embedding this approach in disciplinary contexts, educators should teach relevant language and literacy skills, followed by opportunities for students to practice and reflect on this learning (Busteed, 2025). The course connected to this study is designed around these needs and divided into four modules. Each module examines a different aspect of

academic writing. Workshop sessions include time for students to apply what they have learned and begin tackling writing assignments. The course begins with foundational instruction, introducing key writing conventions and strengthening formal writing skills. Subsequent modules focus on achieving expectations for different text types (e.g., essays, reports) and language functions (e.g., explanation, classification, argumentation, and reflection), along with developing the ability to locate, read, and incorporate academic sources into writing. Guidance on editing, proofreading, and maintaining academic integrity is incorporated throughout. Collectively, these components support the learning outcomes, which take into account the various stages of the writing process. In our course, further embedding of disciplinary literacies is achieved via the writing assignments. They are flexible in their design, meaning students can choose from approved topics and are encouraged to consider those aligned with their disciplines of study.

We examined GenAI and process writing during the second module, which focused on different language functions – explanation, classification, argumentation, and reflection – and culminated in a writing portfolio. As described in detail in the companion article (Gurney & Busted, 2026), lessons drew on Murray’s (2003) stages of process writing (i.e., prewriting, writing, rewriting) and highlighted the importance of the decision-making stages involved in writing, as per Flower and Hayes (1981). Students were also shown how ChatGPT works in general terms, and well-recognised shortcomings of GenAI-produced text were discussed with them. In this sense, the teaching was geared to helping students develop a critical awareness of how GenAI works, and how it might help and hinder their writing. The module also featured lessons that explained relevant language functions, reviewed assignment guidelines and marking criteria, and used model texts and examples to demonstrate expectations. Additionally, students were given opportunities to practice skills essential to their writing process, such as idea generation and organisation, locating and citing sources, critical reading, drafting with appropriate structure, revising content, and proofreading.

As part of the module’s first lecture, a frame was introduced to the students, which we labelled the *SPUD Effect* – an acronym referring to some common features of GenAI-produced writing. We devised the SPUD Effect after examining early published discourse about GenAI and its impact on teaching and learning in higher education (e.g., Crawford et al., 2023; Thorp, 2023; van Dis et al., 2023). Next, we used existing writing task instructions associated with the course as prompts to generate responses in the free version of ChatGPT and then applied our expertise as language and literacy educators to analyse the resulting texts. These steps laid the groundwork for the creation of the SPUD Effect. This original tool is particularly relevant when AI-generated texts are used by those new to a content area or using GenAI as part of academic writing for the first time. The SPUD Effect was introduced to students with the following explanation:

*Shiny* – the text is polished, free from mechanical errors (but lacks substance)

*Pedestrian* – the text is boring, bland, lacking a compelling voice

*Unreliable* – the text can include false information, fake quotations and/or sources

*Deformed* – the text may not be structured as required, uses unnecessary headings, and organises content in lists/bullet points instead of paragraphs.

To experiment with this frame in practice, students were required to use content produced by ChatGPT as the starting point for writing a short classification text (i.e., a text which classifies a subject, explains the rules of the system of classification, and gives clear examples), which was one of three texts in their writing portfolio. For the classification text, students selected one of the five writing prompts provided. They were given drafts generated by the free version of ChatGPT and, using their knowledge of the SPUD Effect, identified aspects of these drafts requiring improvement. Then they worked to find sources, rewrite, and reorganise the content to bring it up to a final standard, making the changes they deemed necessary. For the second text, which was

an argumentative text, students chose a new topic and were required to establish their position from this starting point. They followed the stages of process writing in a more established order (brainstorming, finding sources, and planning before drafting and refining) to prepare this text from scratch without using any kind of GenAI. We explained that avoiding all use of GenAI for the argumentative text was essential to the students' completion of the third text for the writing portfolio, and we monitored their progress during the module to ensure this rule was followed.

Setting up the first two texts in this manner ensured students could compare their experiences of the writing process with and without GenAI assistance. As the final component of the portfolio, students wrote reflectively about composing the two texts and their views on the potential uses of GenAI. Reflective writing was included to encourage learning from experience, and to focus students' attention on the decisions made while writing rather than the final product (Guo, 2022). When writing their reflections, students were required to respond to these questions:

1. What are your reactions to learning the steps of process writing in class? How did you find each step?
2. How did you find the application of the process writing steps when completing the classification and argument texts?
3. What are your reactions to working with generative artificial intelligence (GenAI) in the workshops/online activities and when preparing the classification? What were some benefits and/or drawbacks of using GenAI for your academic work?
4. How likely are you to turn to process writing and/or GenAI for future writing assignments, where appropriate? Please provide detail to justify your response.

We encouraged them to compose open and honest reflective texts about their experiences, and the marking rubric was designed to ensure they were graded on the reflections' depth and clarity.

This new module design afforded us the opportunity to conduct academic literacies research. Our qualitative inquiry was granted ethics approval by our university's School of Education ethics committee. We obtained ethics permission to use anonymised versions of students' reflective writing for thematic analysis. Students were provided information about the study during the module. They were informed of our intention to analyse their reflective texts for research purposes and given the opportunity to opt out of the study. The teaching team responsible for marking students' portfolios were not told who opted out to avoid ethical concerns. Once the course had ended, students' written reflections were extracted and anonymised for thematic analysis.

In addition, this study gathered data from a focus group involving three of the course teachers and the convenor. It ran for roughly 60 minutes and was conducted a couple of months after the course's completion. Questions addressed GenAI's role in tertiary academic language teaching, the benefits and drawbacks of using it with students, and future directions for GenAI pedagogy and policy. Teachers were asked to consider experiences with the course and GenAI more generally.

To complete a thematic analysis of students' reflective texts and data from the teacher focus group, we drew on guidance from Braun and Clarke (2022) and Saldaña (2021). We opted to complete an inductive coding process. At first, each author coded the data separately, recording our codes and initial analyses manually as analytic memos. Then we brought our draft analyses together for refinement. Two cycles of data analysis and synthesis were undertaken (see Saldaña, 2021); data were first broken down into codes (analysis), which we then organised into categories for further refinement to produce themes, which form the basis of our findings (synthesis).

Our method is best described as reflexive thematic analysis. Our role as teacher-researchers means we were involved in dual ways in the research context; however, as Braun and Clarke (2022) assert, this is not a weakness. To ensure validity and trustworthiness, we completed an iterative

process of analysis before engaging in intensive discussion at the synthesis stage (Saldaña, 2021). Numerous quotations are included to ensure results are data driven.

## 4. Results

The findings are presented below in thematic subsections. Firstly, we explore the students' views on writer identity and integrity, and how these were affected by using GenAI. We then examine the teachers' reflections on using the software as part of their teaching, including the potential benefits and drawbacks. Excerpts from students' reflective writing and the teaching team's focus group discussion are integrated throughout the subsections. We use italics to show key words and short phrases taken from the data and quotation marks for longer excerpts. Where we report quotations from specific students, they are identified by random numbers (S1-S35) to maintain anonymity. All excerpts are presented as they were submitted by participants, with no adjustments to expression made unless indicated.

### 4.1. Developing writer identities

Students reflected on their developing writer identities, including their struggles as they transitioned into tertiary-level academic writing. Some students felt confined by the structure and style of academic writing. S24 struggled "*to come up with concise and appropriate ways of wording things,*" while S31 found it hard to write in third person and adhere to the word count limit "*as I was passionate about the thesis explored.*" Indecision and anxiety also impacted students' experiences. S33 shared that "*I found myself procrastinating when given free choice on what my argument could be about.*" As a self-described *apprehensive writer*, S32 disclosed a habit of "*setting unrealistic expectations, dawdling on insignificant hiccups, trying to type 'perfection' on the first attempt.*" These *self-inhibiting* tendencies had their "*greatest – or worst – effect in the drafting and re-writing stages of the two texts; significant time was spent editing and rephrasing at points where a loose draft would have sufficed*" (S32).

Students who used English as an additional language drew attention to additional challenges. S35 wrote that being bilingual made *the re-writing aspect* of the writing process more problematic, while S19 noted that it causes occasional "*struggle with a lack of academic words.*" Similarly, S5 reflected, "*my first language is Te Reo Māori and I find it constantly challenging to recognise language features and informal sentences.*"

Participants also provided reflections on traits they associated with being a successful writer. They described academic writing as requiring *a compelling voice* through which *lots of details* are communicated in *clear and professional* language to ensure *the reader understands* the message. To achieve this, they found it necessary to ensure their own *thorough understanding* of the topic and scope of the text they were writing. Additional comments drew on specific traits associated with effective academic writing, some of which were compared with GenAI output. For example, S32 wrote that the ChatGPT-generated draft they worked with "*possessed a mediocre vocal presence, lacked cohesiveness, and was limited in intriguing, academic vocabulary*" – characteristics they felt had to be improved during rewriting.

Other students commented on learning and applying the process writing stages, finding them useful for conceptualising writing more holistically. S35 described prewriting as *a highlight* because this stage ensured their chosen topic for the argumentative text was "*one of relevance to my experiences.*" Similarly, S34 mentioned that completing the steps of *reading* and *research* before *draft writing* "*play a crucial role in producing exceptional work.*" S18 commented that the process writing approach would prove useful through "*the rest of my life as a writer. In and out of different disciplines, the skills I learnt regarding process writing are transferable; hence, I believe it can take me far.*" Similarly, S35 wrote, "*learning the steps of process writing has been*

*significant in analysing gaps in my academic writing and identifying processes and resources, such as Grammarly, ChatGPT, prewriting, writing and [re]writing to improve these areas."*

#### 4.2. The inner luddite identity

Some students' inner luddite identity was exposed through the experience of the module. The term *luddite* is used here to refer to their resistance to new AI technology on principled grounds, recalling the 19th century English textile workers' movement to protest automation, when the term was originally coined (Binfield, 2008). Comments related to this theme were made as students described the added layers of difficulty caused by working with GenAI. For instance, S22 found it *significantly easier* to follow the stages of process writing when writing without GenAI because this meant completing them "in a logical order," while incorporating GenAI into the process "only served to make things harder and neglected exercising the skill of writing from scratch." Similarly, S11 wrote that using the ChatGPT-generated draft as a guide made the writing process *harder* because "it did not give me the freedom to put my thoughts into the text." S27 compared the limitations on *ideas* and *self-expression* imposed by ChatGPT's incorporation into the writing process as feeling "like swallowing food without choice." S14 expressed a preference for doing "my own brainstorming that does not require technology" because they thought something *just feels off* about using GenAI when writing. Having experienced both approaches in the module, many students expressed a preference for writing without the use of ChatGPT-generated content.

Digging deeper into these preferences, students' comments illuminated a sense of pride – and even necessity – in writing a text from scratch. S25 highlighted the importance of putting "*effort into my assignments*," and S17 suggested there is greater *authenticity* in a text written from scratch because it features "*my own ideas and unique voice*." S23 compared the experience of starting with the ChatGPT-generated draft for the classification text versus writing from scratch for the argumentative text, ultimately favouring the latter because "*the finished product resulted in an overall greater sense of satisfaction ... as the work completed was entirely my own*." Similarly, S34 stated that not using GenAI allowed them to "*tackle my argument text with 100% confidence ensuring the work I produced was completely my own*." S18 explained that the "*application of process writing proved crucial for me, allowing me to produce pieces I could be proud of*." In general, students' comments indicate they value authentic writing experiences that reinforce a sense of ownership over their work and pride in completing it.

Some students expressed concerns over a reliance on technology to do their work for them. For example, S24 compared the use of ChatGPT to *cheating*, claiming the *frustrating* experience of using its draft in the module has "*put me off using it for academic purposes*." S28 expressed *fear* its use could lead to failure, while S14 worried incorporating it into the writing process could *create a dependency*. A comment by S30 illustrates well the reservations expressed:

*I feel that there is the potential to over use AI and therefore become reliant on it to provide you with the ideas needed for your essay. This could lead to you becoming lazy and not developing the skills necessary for academic writing. It feels like someone else is doing the work for you and you are not exploring enough avenues to find the information yourself.*

#### 4.3. Identifying as creative and principled writers

A third theme about students' identity as writers indicates they view identity development as intertwined with creativity and a strong sense of ethics. Comments related to this theme were made as students described learning the stages of process writing as well as working with a ChatGPT-generated draft. S15 described the *downfalls* associated with using GenAI, specifically "*the lack of human creativity*" – a component highlighted as necessary "*to get the best out of your writing*." S12 expressed having *mixed feelings* regarding GenAI but acknowledged "*this is more*

from an artist point-of-view rather than in writing.” These comments align with remarks shared by S17 about the importance of *authenticity* in writing and the ability to reflect one’s *unique voice*. Meanwhile, other students drew connections between academic writing and their personal values. S27 highlighted the importance of following the stages of process writing “to ensure that my stand is based on fact,” while S6 noted that leaving GenAI out of this process “makes me feel like I’m not just using the easy route.” S31 was a bit more flexible towards the technology, saying it can be used *when appropriate*, but stressed the importance of being *cautious* by doing *research to confirm* all details are *honest*. S25 reflected on having thought at first that GenAI could be a *great tool* for academic writing; however, the experience of working with it convinced them it “cannot be used as a source” and doing so is “very unethical, especially [when] submitting an assignment at a tertiary level.” Overall, connections were drawn between academic writing and creative expression, while concerns were raised about the ethics of incorporating GenAI technology into the writing process. The concept of integrity proved prominent in the dataset, so it is discussed in the next themes.

#### 4.4. Writer integrity and GenAI

In the writing course, the notion of academic integrity was developed through a holistic focus on the writing process. Our intention was to go beyond addressing plagiarism, attempting to explore more deeply where and how the substance of texts is formed: how and where to find information, who this information is produced by and for what purposes, and how and why sources are acknowledged in writing. Some students’ reflections echoed this intention, commenting on academic integrity as part of the writing process. They mentioned prewriting involved *finding credible sources* since the most effective way to support their ideas was through *evidence* that was *reliable and accurate*. These sources were integrated into a writing *plan* that gave their *ideas* some *structure* and clarity, and expressing these ideas through *academic language* left the writers *confident* in the accuracy of the texts. As S27 put it, “I will definitely use the steps in process writing to ensure that my stand is based on fact and comes from a thorough understanding of the topic.” Likewise, S30 enjoyed gaining awareness of “how not only the words but the unity and sequencing of paragraphs with authoritative sources develop into a credible [text].”

However, most comments relating to academic integrity touched on the role of GenAI in the writing process. While it was acknowledged such technology can be *powerful and useful*, students wrote that ChatGPT and related tools are *inherently flawed* as producers of reliable content. Many drew attention to the lack of *evidence* in ChatGPT-generated content and the fact that the software did not provide citations or references.<sup>1</sup> Students identified GenAI as *not always reliable* because it can include *incorrect information* and *false claims*. Together, these problems led to a perceived clash between GenAI and the standards of academic writing, leaving students having to *scour for sources* and do considerable cross-checking of information. S17 recalled needing to research most details in the ChatGPT-generated draft because “there were no sources or references to indicate that the information was true and correct.” S29 noted incorporating GenAI into the writing process can force students to “spend more time checking if what it is saying is true than fixing the writing.” Others were left with the impression that, ultimately, the technology is *untrustworthy*,

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<sup>1</sup> In relation to this issue on the non-provision of citations and references, we acknowledge that we could have but did not prompt the software to provide citations at the time. However, ChatGPT has long had issues with incorrect or made-up citations, so prompting for the provision of references would not necessarily have solved the issue. We had also discussed secondary citations with students, instructing them on the importance of verifying accurate representation of original sources. Even if reliable sources had been provided by ChatGPT, whether it had accurately reported on the contents of those sources would still have needed to be checked.

and any future use would result in doing *more work* to transform and improve the text to ensure it aligned with academic writing conventions and assignment expectations.

#### 4.5. Adapting to ethical writing practices and overcoming challenges

In their reflections, students shared details about academic integrity-related challenges. Some of these had to do with applying process writing's stages. For example, comments related to the *struggle* to find *reliable* and *appropriate sources* that would align with chosen topics, support their thesis statements, and help them *prove a point*. Two students noted how other aspects of the writing process proved troublesome as they met expectations for integration of scholarly evidence. S31 stated, "*I found it difficult to [include] referencing when and where it was appropriate,*" explaining this skill was not practiced much in secondary school. S33 described how "*my opinion of the topic was changed*" after brainstorming ideas and *doing more research*.

Other challenges mentioned had to do with using the ChatGPT-generated drafts while still meeting expectations of academic integrity. Some students *struggled* to find scholarly *evidence* that aligned with *the prompt* and could *substantiate the claims and ideas* included in the drafts. In some cases, this led to excessive time spent on the rewriting phase. S3 reflected, "*One thing that really slowed me down was finding good sources and making sense of the text.*" Likewise, S1 was frustrated by having to "*work backward to find sources to support my writing, especially if there were no sources to support it.*" Several students pointed out that, while the drafts looked *trustworthy*, they had to deal with *inaccurate* information, which forced them to find better sources and make changes to ensure the revised text would *fit the expectations*. For example, S33 described GenAI-produced content as "*helpful when drafting a text, but [it] can never be used as a final product due to its unreliable nature.*" The students also mentioned the need to *reduce* the presence of the SPUD Effect in the ChatGPT-generated drafts to ensure the integrity of their rewritten versions. Numerous students mentioned this acronym in their reflective writing as something that helped them learn *how to identify* the limitations in their ChatGPT-generated drafts, particularly the potential presence of *inaccuracies* and *fabricated information*. Meanwhile, S2 explained having to find sources "*to back up ChatGPT's claims*" made the writing process harder and consumed more time – an experience that left this student with the impression GenAI should not be used to that extent again because it "*created more problems than it solved.*"

#### 4.6. Using GenAI in the future

Students were asked to comment on whether they would consider using GenAI in the future, with a particular focus on their academic studies. The responses were mixed, comprising positive and negative attitudes to the technology. Several students reflected on the time-saving potential of using ChatGPT to *swiftly* generate information. S4 argued that being able to access information so quickly "*not only saves time but also enhances productivity.*" Similarly, S14 appreciated ChatGPT's capacity to provide "*hundreds of ideas in less than a minute.*" Numerous other students commented on GenAI's ability to *generate ideas* and *suggestions*, help with *writer's block*, and provide a *starting point* when they are *completely stuck* on a topic.

A few students reflected that they were likely to use GenAI in the future to expedite the writing process. S24 highlighted the benefits of using ChatGPT-generated drafts "*as a beginning point for assignments,*" while S11 intended to use GenAI "*if I have trouble starting a piece of writing or concluding it by using it as a template form.*" Similarly, S29 stated future use "*would be for things like brainstorming, or summarising texts that I am using for sources.*" S27 wrote, "*I will use AI to save time and effort in deciding what to include and how to organize ideas.*" S35 indicated GenAI is "*advantageous if deadlines are fast approaching and re-writing is a strong skill of yours*" – in other words, it could help with procrastination and poor time management, or as a replacement for prewriting and drafting in the face of heavy workloads.

Additional insights were gleaned from the teaching team's focus group discussion. The teaching team saw the incorporation of GenAI into the teaching of academic writing as useful for various reasons. These include *teaching editing skills*, developing students' *critical thinking* while writing, ensuring they add *structure* to written output, helping them revise texts to meet *required standards* while including *their own voice*, and addressing issues with "*writer's block or lack of confidence in attacking a new genre.*"

However, the teachers expressed concerns that, by featuring ChatGPT in the new module, a door may have been opened for *complacency* to develop among students. They may *start depending on* the technology, seeing it *as a fix* for *poor study habits* or as an *emergency parachute* when procrastinating. Eventually, relying on AI-generated content could "*affect their personal confidence as writers*" or even trigger some students to resign themselves to "*just use exactly what it says.*" Underlying feelings of fear and apprehension were expressed by the teachers, who worried introducing undergraduate students to how GenAI can be integrated into the writing process could "*come back to bite us,*" although they considered that pairing ChatGPT with a process writing approach is a better strategy than "*just [dropping] AI in their laps.*" They saw importance in framing the technology through a *more old-school* approach to writing that "*teaches [students] those skills that are missing*" and "*reinforces the importance of fundamentals.*"

The teaching team also expressed the need for GenAI use to be scaffolded at the institutional level by establishing a broad approach to regulate its use, embedding AI literacy in programmes, and preparing graduates for how the technology is used in professions. Such a strategy would provide students with *a clear idea* of what GenAI can and cannot do and how its use should be approached when writing, leaving them "*better set up for moving through those kinds of spaces.*" Later, *knowledgeable* graduates can put such training to use with *firms and organisations* that may be *using it* and/or may lack *understanding* of it. One of the teachers stated, "*We can't ignore the fact that this technology exists now, and it's to the institution's detriment to not follow this type of path and actually incorporate it in a thorough way into the education.*"

## 5. Discussion

Together, students' reflections indicate that they set high expectations for their academic writing, underscored by a sense of responsibility to their audience to produce accurate, engaging, and coherent work. Their conceptualisations of writer success were understandably connected to achieving in academic environments, although some extended it beyond their studies. They experienced some obstacles as new academic writers, in particular concerning meeting academic integrity standards. Also, as signalled in the findings, students shared different attitudes to GenAI in relation to their writer identities. Some were opposed to it on principled or pragmatic grounds, whereas others were more open to experimenting with it. The overall impression is that learning through a process writing approach was useful to help set realistic expectations, assist them in organising their work, and guide their further development – with and without the use of GenAI.

Students' reflections unmasked a fundamental component of their identity as novice writers: an earnest desire to develop their skills, do the work, and express their ideas. Some educators may assume that students, particularly those who have grown up with digital technologies within easy reach, may become dependent on them. Our students' reflections indicate that, even when learners have an opportunity to experiment with GenAI and learn about how it works, they may still prefer to avoid it in favour of a more established, self-directed approach to writing, or they may wish to use it minimally. It is important for educators not to make assumptions about student preferences in this regard, or to teach as though all students are already using GenAI or are using it in the same way. Teaching about GenAI does not have to involve accepting its use for all aspects of the writing process, as we discuss further below.

### 5.1. Teaching implications

This study has focused primarily on the addition of AI-generated draft texts to a process writing approach in an academic writing course. The students' comments highlight the importance of creating opportunities to practice various skills associated with the writing process and find their voice as writers. Embracing writing's iterative nature and adapting to ethical writing practices are necessary for students new to higher education.

Students' plans to use GenAI were founded in reasonable assumptions about the current capacity of the software. As presented in the results section of this article, as well as the companion paper (Gurney & Busteed, 2026), students saw benefits to using GenAI to brainstorm and kickstart their writing. However, doing so is not without risks. In a pedagogical sense, overuse of GenAI may stymie students' research skills and habituate them to the notion that information can be separated from its original contexts and authors. Concerns were expressed by some students that habitual use of GenAI as part of the writing process could create a dependency. Students also commented on how challenging the writing process can be when using an AI-generated draft as a starting point due to the need to find reliable sources to verify the accuracy of the content.

In an academic integrity sense, using GenAI raises questions about the honesty and legitimacy of assessed work, and may even lead to disciplinary action if students are not vigilant about checking content and incorporating their own research. This is a key aspect of an ongoing discussion around GenAI systems, which themselves can be described as founded on breaches of integrity because they pull text from a vast database, compiling the work of human authors and artists made available online without appropriate acknowledgement of these sources. For Dien (2023), the question was not whether we should attribute authorship to an AI or even simply admit to its use in order to avoid integrity breaches. Rather, giving AI authorship credit "would be like giving a copy machine authorship credit, albeit one that paraphrases and copies from multiple sources" (Dien, 2023, p. 2). Giving credit for authorship is a core tenet of academic integrity, and being able to trace the source of ideas and content is critically important for evaluating their applicability and usefulness. However, none of the authors or artists who have posted blogs, images, reviews, articles, tutorials, or other texts freely available online gave consent for them to be used in AI training databases (Gal, 2023).

The SPUD Effect, which was mentioned earlier as a frame devised to help students see common shortcomings in their ChatGPT-generated drafts, proved useful within the module's design. This acronym was created to both draw attention to some of the commonly observed limitations of GenAI-produced texts in a way that would be memorable, while also encouraging students to trust and develop their fundamental skills as writers. Its inclusion in the module design also helped students acknowledge the importance of addressing issues caused by the SPUD Effect via rewriting to reduce its presence and improve the text before submission. Reactions to the SPUD Effect suggest this frame builds on the idea of the halo effect (see van Dis et al., 2023) by identifying specific characteristics of AI-generated content that are problematic in academic contexts. Therefore, the SPUD Effect as a teaching tool can make a useful contribution to learners' academic literacies development at a time when GenAI is influencing the voices of writers as well as ideas and policies around integrity.

Overall, our analysis of students' and teachers' reflections suggests timeliness and awareness-raising are important factors when teaching about GenAI in academic literacies instruction. Process writing served as a useful foundation to create opportunities for students to follow the stages across different language functions. Some participants were excited by the inclusion of GenAI in the module, describing this technology as a valuable tool, so getting to work with the drafts captured their interest. They recognised the importance of learning how GenAI works and how to use it given how widespread it is becoming. Looking to the future, many participants indicated they may consider using ChatGPT in their writing but in a limited capacity or only when

appropriate. A considerable number of students reported they were unlikely to turn to it in the future as a writing tool. Such tempered reactions to GenAI, despite its popularity, are notable. To honour the integral role the student voice plays in this study, we opt to add an extra comment here from S8 due to its exceptional insight on students' interest in GenAI:

*Working with AI was fun and felt smart. It's a new technology that is spreading across modern culture like a wildfire. It made sense to start getting used to it as a tool, and it's fascinating to observe and actually break down how it tries to emulate human writing and thought processes, particularly where and how it falls short.*

Blending new technology with established pedagogy and explicitly addressing shortcomings of AI-generated texts enhances learners' understanding of how to meet academic writing expectations in higher education. In the following subsection, we reflect on the study to provide recommendations to other educators working with students in higher education in the era of GenAI. We share an emerging framework for the integration of this technology in the teaching and learning of academic writing.

## **5.2. An emerging framework for GenAI use in academic writing instruction**

Fundamentally, we take the stance that incorporating GenAI into academic writing instruction is not a question of *whether*, but *how*. Given the prevalence of GenAI technologies and the likelihood that they will continue to expand and evolve, it would be an abrogation of our responsibilities as academic language educators to fail to address them in teaching. The challenge lies in *how* the technology is framed in our teaching, and how we encourage learners to think about and interact with it. Condemning or evangelising about GenAI is counterproductive; instead, we support the adoption of a critical and pragmatic stance. Students should be taught how GenAI works, including how it pulls content from available sources and how it produces output. Stepping back further, the provenance of AI technologies can also be addressed – for instance, that programs are owned by private companies, training databases are not disclosed, and user inputs become part of the database. This is part of a critical approach to AI education – fostering critical GenAI literacy – that helps learners to understand how it is positioned, and which interests sit behind it, not just how it works. A critical approach can help learners make more informed decisions.

At the same time, it is important to acknowledge that overuse of GenAI can disrupt the development of students' subject expertise, particularly if relied on too early – that is, when they are not yet at the stage of being able to read AI-generated content independently and critique it. This is where the reading and writing processes are strongly intertwined. We agree with Anson (2024) that “there is a lot at stake when a student outsources some of the key cognitive processes involved in comprehending, summarising, and transforming course readings” (p. 1466). Anson (2024) argued LLMs pose a significant risk to students' academic literacy development, in that they allow them to skip “the cognitive work of understanding how to read strategically, how to form an argument, how to synthesise the evidence, and so forth” (p. 1473). As our data suggest, it can be very challenging for students to work backwards, filling in gaps in AI-generated content that they are not yet able to easily perceive. While we acknowledge that GenAI programs can also be used to assist with academic reading, including locating and summarising sources, a close examination of the use of GenAI for reading support is beyond the scope of our paper. However, we see this as a productive direction for further research.

We found using a teaching tool designed to help learners perceive potential risks and shortcomings of AI-generated writing (in our case, the SPUD Effect) was a useful and accessible way to communicate our concerns. To achieve balance and encourage learner autonomy, such a tool should be paired with opportunities for learners to identify and discuss those shortcomings and practice working with AI-generated content leading up to a writing assignment. This strategy

aligns with the principles of embedding the academic literacies model, as mentioned earlier. Ideally, learners should come away from the experience with a practical understanding of what role GenAI can play in their writing, if any. Supporting this experience with an effective learning tool and tying it to an assessment raises awareness of the stakes of relying on GenAI in an academic context. This approach can develop students' critical GenAI literacy and help them find their voice as they expand their disciplinary knowledge and communication skills.

Pairing an academic literacies approach with critical GenAI literacy development is likely to be a productive route forward. This pairing involves looking at GenAI's uses in a differentiated way and considering its impacts across academic disciplines and professional pathways. Examining the technology's existing influences in various disciplines and across different spaces lends support to this approach. For instance, GenAI can serve as a virtual tutor for computer programming students and support their learning, while programming professionals can collaborate with the software to optimise their work routine and increase productivity; however, limitations in GenAI's code generation capabilities, its tendency to hallucinate, and related legal and security implications are concerns (Cambaz & Zhang, 2024; Negri-Ribalta et al., 2024; Sheard et al., 2024; Siedsma, 2024). In addition, medical professionals and related medical education programmes are grappling with how GenAI is prompting change and evaluation of numerous facets of the profession, including the following examples: recording clinical notes; the analysis and interpretation of medical imaging; patient diagnosis; professional communication skills development; the ethics of medical practice; policies and guidance; and other matters relating to patient confidentiality, bias, data privacy, and liability (Gordon et al., 2024; Khalifa & Albadawy, 2024; Koçak et al., 2025; Lehman et al., 2024; Smith et al., 2024; Thesen et al., 2025; Weidener & Fischer, 2024). Meanwhile, other authors have highlighted the negative consequences of the habitual use of GenAI among students, including the practice of cognitive offloading and its connection to the loss or reduction of critical thinking skills development, and how these matters are triggering curriculum revisions in humanities and social sciences programmes (Lavidas et al., 2024; Steizinger, 2025). Also, exploring the available literature suggests a growing number of articles are focusing on the intersection of data ownership, intellectual property, higher education research projects, and/or protected information in industry (e.g., Dwivedi et al., 2023; Ganguly et al., 2025; Smith et al., 2025; van der Meulen & Wixom, 2024).

The breadth of influence GenAI has possessed in the last few years is prompting higher education institutions to establish policies for its use, and our university is currently following suit. Working groups have developed higher level guidance for students, faculty, support staff, and researchers. Across the growing collection of literature on GenAI in higher education contexts, some themes are starting to emerge where students are concerned: the technology's potential as a learning tool and starting point; academic integrity and ethical practices; the risk of blindly trusting in AI-generated content and developing a dependency; and its ability to hinder learning amongst beginners. Our study's findings align with these trends, reinforcing the merits of pairing an academic literacies approach with critical GenAI literacy development. Since GenAI can impact reading and writing skills development, influence one's understanding of academic integrity, and even be tied to identity, it is vital that educators incorporate it into curricula so learners gain awareness of what role this technology may play in their future professions and how it could affect communication in those spaces.

## **6. Conclusion**

Using GenAI can look like many things – even within our study's specific academic writing context. Generating ideas for brainstorming, which are then cross-checked with other information, is very different from taking chunks of text (or even a full draft) produced by an AI and submitting them for grading. Both practices come with risks. However, it is clear to see how one is more easily remediated and reconciled with academic integrity norms than the other, and how it is also

more conducive to learning and establishing an identity as a capable, autonomous, and critical writer.

It is essential for students to understand that GenAI can be used in various ways to aid their learning and writing, but its use is not compulsory. They can study successfully even if they decide not to engage with it, particularly in the early stages of their degrees. Furthermore, a range of considerations should be taken into account by educators when making choices about GenAI. While they were beyond the scope of this study, they are nonetheless important to acknowledge. Firstly, while many GenAI programs are free to use for now, this might change. In any case, GenAI programs are privately owned, and their databases are not disclosed. User inputs, which become part of the database, should therefore be carefully considered in relation to providing sensitive or private information. There are other reasons why we or our students may choose to avoid GenAI, including environmental impacts. Developing reliance on GenAI programs is clearly not a desirable outcome, and it is incumbent on educators to consider these matters holistically. Our study contributes a piece to the larger puzzle, but we would urge continued research to develop a more comprehensive picture of not only how GenAI affects students' writer identities and understandings of integrity, but how it shapes their learning and communication skills development more broadly.

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