CHAPTER 10.

GOOD PROMPTS ARE SUFFICIENT TO PRODUCE GOOD WRITTEN PRODUCTS ✨ *EFFECTIVE USE OF GENERATIVE AI IN WRITING REQUIRES CRITICAL AI LITERACY*

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The internet today is flooded with resources claiming to offer the best prompts for writing with generative artificial intelligence (GenAI), often touting promises of effortless academic writing and perfect results every time. While high-quality, research-based guidance from university libraries and writing centers is available, these widely circulated and easily accessible quick solutions are often more visible and attention-grabbing. In an era where GenAI can generate a coherent text on demand, mastering the art of prompt engineering, the practice of designing and optimizing inputs to large language models to elicit desired outputs, appears to offer a seemingly magical shortcut to the intricate work of academic writing. However, as Lisa Bell and Joni K. Hayward Marcum (2026) argue, the ability to craft prompts and generate outputs is insufficient for meaningful and responsible GenAI use. The framing of writing as a technical problem with a technical solution, we argue, perpetuates a reductivist view of writing as merely a product to be efficiently manufactured rather than a complex social process of meaning-making. Students who buy into this plug-and-play approach, seeing themselves as GenAI users first, risk avoiding the challenging but essential process of thought development, thus preventing learning. Moreover, when the immediate outputs of GenAI fail to meet their expectations, frustration might set in, diminishing their confidence in GenAI-assisted writing and reducing their willingness to further explore its potential as a learning tool.

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When addressing the issue of GenAI in writing education, it is better to consider students as writers first and GenAI users second, as well as fostering students' awareness of this distinction. While GenAI may enhance productivity by automating writing tasks and leaving more time for "the important work," writing as a process has always been the important work in academic writing education, as suggested by Jane Rosenzweig, the director of Harvard College Writing Center (2024). Regardless of whether or how students choose to use GenAI, they remain the primary owners of their own thinking and writing, and they bear the ultimate responsibility for developing their writing abilities and, not least, identities. Therefore, from the language teaching perspective, we would like to emphasize that academic writing is a process of self-regulation, where students should be supported in the development of their metacognitive abilities to manage their own thinking processes and to critically engage with GenAI tools within these processes.

In this chapter, we propose critical GenAI literacy (C-GAI-L) as a key component of today's academic writing instruction in higher education. We start by grounding this concept in the scholarly discussion of self-regulated and metacognitive learning. Then we illustrate the teaching of C-GAI-L in academic writing using a micro-curriculum that we developed and practiced with doctoral students at a Swedish university.

METACOGNITION AND SELF-REGULATION IN WRITING PEDAGOGY

GenAI may seem like a magic quill that instantly dispenses finished texts on demand. However, this simplified view of writing as a product overlooks the iterative and collaborative nature of writing as a process. Leah Henrickson and Albert Meroño-Peñuela (2023) demonstrate that while GenAI will always generate a response, meaningful engagement with ideas—the core of good writing—cannot be reduced to a set of technical instructions. What is needed instead is a nuanced understanding of writing as a complex cognitive process that can be developed and refined through metacognitive awareness and self-regulation.

Metacognition, the ability to step back and think about thinking, is essential for developing this more nuanced understanding of writing. In academic writing, this means developing a deeper awareness of how complex tasks are approached, allowing for more intentional and reflective learning. Research shows that the most effective writers are not just skilled at putting words on a page, but excel at understanding thought processes, monitoring strategies, and continuously adapting their approach (Sword, 2017). Like a master craftsperson who intimately understand the tools, techniques, and nuances of their

craft, writers develop self-awareness that moves beyond seeing writing as merely a product to understanding it as a dynamic, interconnected process involving cognitive, textual, and social dimensions (Negretti, 2012). By cultivating this reflective practice, they can break down complex writing tasks and develop more nuanced approaches to effective communication.

Self-regulated learning (SRL) is a "*proactive* process" in which students take charge of their own learning through "self-directive" approaches, actively working to develop their mental abilities (such as communication skills) into academic skills like writing (Zimmerman, 2008, p. 166). Within the context of writing pedagogy, SRL entails students developing targeted practices for drafting, revising, and critically assessing their work. Students also learn to create supportive writing environments, set meaningful goals, and build confidence in their abilities. SRL shifts writing instruction from external evaluation to internal development, positioning students as active agents of their own learning. By cultivating self-regulatory skills, students learn to view writing not as a fixed ability, but as a flexible, learnable craft that can be systematically improved through purposeful practice, reflection, and strategic adaptation. Furthermore, self-regulated learning includes "self-initiated forms of social learning, such as seeking help from peers, coaches, and teachers" (Zimmerman & Schunk, 2011, p. 1). Self-regulation emphasizes writing as a process of continuous learning where students recognize their strengths, identify areas for improvement, and develop metacognitive awareness about their writing practices.

C-GAI-L FRAMEWORK

We define C-GAI-L as "a complex of knowledge and skills that L2 writers need in order to engage responsibly and effectively with [GenAI] in their daily academic writing processes (Ou et al., 2024). Different from the existing models of AI literacy, general or specialized (e.g., Cetindamar, et al., 2024; Long & Magerko, 2020), our framework of C-GAI-L emphasizes lifelong learning and self-learning skills, where metacognition is the core. This emphasis on metacognitive awareness means that, just as experienced writers understand their craft, students today must develop an awareness of how GenAI can complement—but not replace—the core skills of academic writing, continuously monitoring their development of knowledge and skills about its effective and responsible use. As Howard Tinberg (2016) suggests, "the objective is not just to have our students produce effective writing … We also want our students to demonstrate consciousness of process that will enable them to reproduce success" (p. 75).

Apart from self-regulation, our C-GAI-L framework encompasses traditional academic and discipline-specific writing skills, adapted to include three aspects

of GenAI knowledge and skills, including:

- *Interaction with GenAI:* Effective strategies to interact with GenAI with an emphasis on writer agency and critical evaluation of GenAI results
- *GenAI ethics in academic writing*: Awareness and critical reflection on major ethical issues of GenAI in academic and societal contexts
- *Technical value and limitations of GenAI*: Knowledge of how GenAI works and the ability to critically evaluate GenAI functions and usefulness in writing and problem-solve for situations due to GenAI limitations.

The notion of "criticality," as involved in all these aspects of GenAI literacy, draws on three layers of critical meaning that Maha Bali (2023) advocates: critical thinking (skepticism and questioning), critical pedagogy (social justice dimension and inequalities), and critical evaluation of outputs. In teaching, this critical perspective means helping students recognize what they gain or potentially lose when using GenAI, thus making well-informed decisions about when and how to use GenAI, as well as when not to use it. Furthermore, by emphasizing metacognition and self-regulation at its core, C-GAI-L ensures that students develop their identities as writers while learning to critically engage with GenAI. Rather than starting with how to prompt GenAI, the framework begins with students' understanding of their own writing processes.

TEACHING C-GAI-L IN DOCTORAL ACADEMIC WRITING

Last year, we piloted the teaching of C-GAI-L in a doctoral level academic writing course at a technology university in Sweden, using a self-regulated learning approach. The course is obligatory for all PhD students enrolled at the university, aiming to introduce students to basic knowledge and skills needed in academic writing for publication, such as critical reading strategies, discipline-specific rhetoric strategies, genre analysis, and peer review strategies. The specific course we discuss here was taken by 67 students from various disciplines (e.g., chemistry, physics, computer science, marketing and industrial management) and nationalities (e.g., Swedish, Indian, Spanish, Greek, Mexican), most of whom are L2 English users. The experimental C-GAI-L teaching was embedded in this course as a micro-curriculum.

As illustrated in Figure 10.1, we guided students through a one SRL cycle of C-GAI-L learning. The cycle began with the *forethought* stage, where students conducted a self-assessment of their academic writing competence, including their GenAI literacy (i.e., usage, potential biases, limitations and ethical concerns

in research processes). At this stage, students activated and evaluated their prior knowledge of GenAI, read relevant resources, and set personalized learning goals for their own C-GAI-L development. This was followed by the *performance control* stage, where students conducted their personalized writing-with-GenAI tasks in class and discussed their initial reflections with peer groups. After this, the cycle concluded with students' *self-reflection* on both their GenAI interaction experience and the whole SRL process, by documenting the reflections in a writing portfolio submitted as their final course assignment.

The teaching yielded quite positive results, as evidenced by reflections from the writing portfolios, with students gaining deeper knowledge about GenAI interaction methods, ethics, and the values and limitations of GenAI in academic discourse. Among the many important outcomes, a significant achievement was the "de-enchantment" with GenAI-students challenged the uncritical optimism of the "superpower" of GenAI technology and recognized that GenAI is not a shortcut to creating high-quality academic texts.

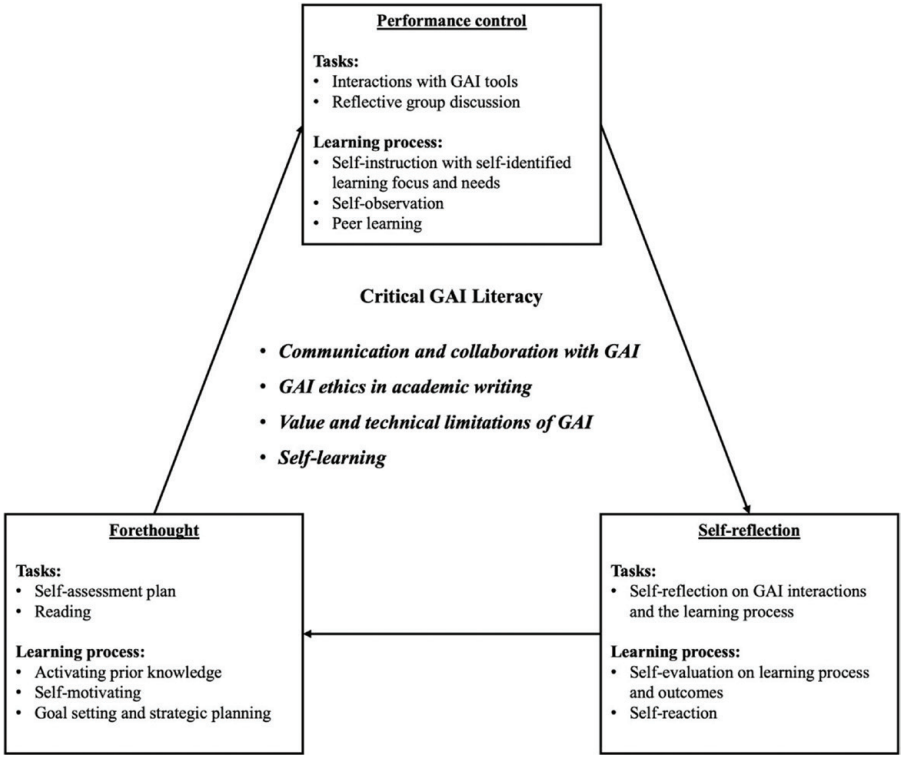

Figure 10.1. Teaching students to write with C-GAI-L through a SRL approach (Ou et al., 2024)

Many students came to the realization that effective academic writing with GenAI tools is highly contextual, with more satisfactory results often emerging from "iterative refinement"—a process of sequential and iterative conversation with AI and peers. They thus motivated themselves to explore systematic methods to prompt GenAI with specificity in an interactive manner. Some students also found the limitation of general GenAI tools (e.g., ChatGPT) in generating language with correct technical research genre; they thus highlighted the necessity of preserving authorial ownership in published texts, as this student's comment illustrates: "For most publications and academic text that I produce I would like to be in full control of the text and would rather use it only as a spell check not to interfere with the language and the content of the text."

CONCLUSION

This chapter has highlighted the disconnect between the marketing rhetoric of GenAI tools and the pedagogical realities of academic writing. By proposing C-GAI-L as an integral part of writing pedagogy, we aim to prepare students for effective communication in both human and GenAI contexts. Incorporating GenAI into writing instruction involves more than just teaching prompt engineering. It requires a comprehensive approach that emphasizes critical thinking, metacognition, and self-regulation. While learning to prompt effectively is important, it should be seen as part of a broader educational goal. Academic writing is a complex and dynamic activity where ideas and expression are continually developed through multiple rounds of engagement with the text, peers, and tools—including, but not limited to, GenAI. In an AI-integrated world, writing instruction must evolve to include the skills necessary for effective GenAI use. However, the core principles of good writing–clarity, coherence, and critical engagement—remain unchanged. By fostering these skills, we ensure that students are not only proficient in using GenAI tools but also capable of producing thoughtful and well-crafted academic work.

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