CHAPTER 42.

GENERATIVE AI PROVIDES GREAT REVISION FEEDBACK

✨ *GENERATIVE AI'S REVISION FEEDBACK SHOULD BE USED WITH CAUTION*

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THE TAPESTRY OF SUDDENLY VAGUE ESSAYS

I (Dani) first started noticing a change in my students' writing styles around the fall of 2022. Suddenly, some of my first-year writing students were sounding like experienced but bored scholars "phoning in" a journal article: they handed in sentences like, "My essay intends to answer this question by examining the key consequences of global warming and suggesting effective solutions. In doing so, the essay aims to participate in the ongoing academic conversation about potential strategies for mitigating climate change." I was struck by the formality and vagueness of their drafts. I had taught the writing process step by step, so why did their final drafts feel so empty of interest and details? When I talked to my students in our meetings, they said they had used generative artificial intelligence (GenAI)[1] to help them revise their papers. "I told the AI to help make my essay better, and this is what it gave me," they said. In this chapter, we discuss our experiences teaching in a GenAI-infused landscape with a focus on revision. Specifically, we explain the results that we saw when students revise with GenAI and what we did to improve upon those results. Ultimately, we argue that writing teachers can support critical GenAI literacy and process-based writing by teaching critical awareness of the limitations of GenAI, by teaching prompt engineering, and by teaching evaluation of GenAI's writing feedback.

1 The students we interviewed mostly used ChatGPT. Note that technology is constantly evolving, and any specific advice given in this paper may work differently with different models. The major models we used were GPT-3.5, GPT-4, and GPT-4o.

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OpenAI presents ChatGPT as, among other things, a tool for revision. On the April 2024 version of its website, the company offered "Critique my short story" and "Review my argument for a debate" in its list of suggested things ChatGPT can do (OpenAI, 2024). However, based on my students' experiences, giving GenAI those suggested instructions creates unhelpful outputs.

I followed up with the student who wrote the paper about climate change. The student, a Latino student from the inner city of Chicago, had done a lot of research about the specific problems related to climate change in their own community. These included the lack of access to air-conditioned public buildings as summer temperatures hit record highs. The GenAI-revised draft encouraged acting locally but did not include any of those specific problems. An earlier draft contained a paragraph comparing their own experience playing in the field by their house to their younger siblings being kept inside due to heat warnings. This was reduced to, "Now my siblings can't have the childhood I had." What had happened to those details? "I guess the AI left that out." The student's lived experience and voice was lost in GenAI's rewrite, which flattened the essay's voice, removed their concrete suggestions (such as planting more trees in unused lots), and made it generic, echoing a bland agglomeration of all the student essays the AI model had been trained. The implicit bias was that of a privileged observer based in the rationalized Western academic discourse, not someone directly affected by or even radically empathetic towards people being affected by climate change. The personal exigency—the best part of the essay—had been eliminated.

Simply asking GenAI to rewrite a paper was not helping students; not only were the results disappointing, but they also subtracted from the learning goals of students developing a unique perspective as they engaged with the writing process as inquiry. I looked for a way to use GenAI in revision that would give the writers more agency and produce more useful results. In the rest of this chapter, we outline interventions in using GenAI to support student revision.

BAD IDEA: GENERIC PROMPTS LEAD TO VAGUE ADVICE

In order to improve students' results using GenAI for revision, I tried a lesson in class using GenAI to see what advice it would give for revising an essay instead of rewriting it itself. My students pasted their essays and the assignment description into GenAI with a request to "Please give me feedback on this essay" or "Please give me suggestions to revise this essay so that it sounds more academic." The advice it returned was generic and based in Western academic paradigms, such as "Start with a compelling hook to engage readers" and "Make sure your thesis statement is clear and specific." This advice often mirrored the assignment

description. Some students saw the value in this emphasizing the evaluation criteria, while other students found the advice limiting in its generality. I agreed with the latter group: GenAI's advice was antithetical to best practices in writing instruction. Composition scholarship has long established specific, contextualized, and goal-driven feedback as best for productive revision (Sommers, 1982). In providing generic, unspecific, and rule-based advice, GenAI gave feedback that limited productive feedback (Sommers, 1982).

GenAI's advice also steered students away from assignment-specific learning goals. GenAI's suggestion to "tie this to a larger issue to connect with a broader audience" limited students' chance of succeeding when I had asked them to target specific situations and connect to their own experiences. I repeatedly saw students' arguments becoming broader as a result of GenAI's advice, despite my course instruction.

GENERATIVE IDEA: SPECIFIC, TASK-BASED PROMPTS LEAD TO PRODUCTIVE OUTPUTS

After this initial lesson, I wrote my own essay about global climate change to use as a test case and kept working with GenAI to find ways to get better revision advice. I also consulted with others in the GenAI community. In addition to GenAI experts, I also talked to the writing program administrator. Kristi and I talked through our learning goals and developed strategies that ranged from bigger picture revising to micro level issues that we could use with students.

Bringing this back to the classroom, then, we had students ask GenAI to summarize their essays. If the summary was accurate, then it was a good measure that the essay was doing what they wanted it to do. If not, it suggested that they needed to do holistic revision. Similarly, students can ask GenAI for an outline and use the feedback to revise accordingly. We reminded students to double-check anything that GenAI wrote, and in some cases our students identified places that it had misrepresented or failed to include important claims or support from their papers.

In addition to these macro-level issues, we walked students through asking GenAI for developmental feedback, such as where they might need more support, as well as sentence-level issues, such as where they could improve transitions or use active voice. As they prepared prompts to ask for feedback, they articulated their sense of their own voice, audience, and goals for their paper, which was a useful meta-cognitive task. This incorporated current research on best practices for prompt engineering. This research encourages narrowing and defining individual tasks. Among suggested prompting

methods, "task-specific prompting" separates a goal into particular use cases through multiple, carefully worded and narrow requests. Sonish Sivarajkumar et al. (2024) stressed using "prompts that are relevant and specific to the task at hand and avoid using generic or vague prompts that may confuse the model or lead to erroneous outputs." Michael Hewing and Vincent Leinhos (2024) suggest defining the following factors, which we did as shown in parentheses: a role (helpful peer or expert), audience, task, and intent (revision feedback for student writing a university paper), context (information about the class and instructor expectations), and output (brief answers pointing to concrete issues in specific parts of the essay). When we taught students to craft GenAI prompts in this way, it resulted in better revision suggestions. For example, GenAI suggested specific evidence to support particular subclaims and gave sample transition sentences.

After prompting better feedback from GenAI, we also reinforced the recursive process of evaluating that feedback. For example, GenAI might give unnecessary advice (in an attempt to be helpful) even if the prompts are strong. Again for the global climate change essay, GenAI suggested changing "rising temperatures lead to" to "an increase in temperatures tends to amplify the prevalence of …" which would not increase clarity or concision. Although instructing GenAI about voice and audience will help improve the output, students also need to critically evaluate each suggestion rather than implementing them uncritically.

RECOMMENDED PROMPTS

Ultimately, after working with students and other instructors this semester, here are specific revision questions we suggest:

- Please[2] summarize my essay, including major claims and support.
- Please provide a paragraph-by-paragraph outline of my essay, including my topic sentences, major claims, and evidence.
- Please suggest ways to narrow my thesis statement based on [learning goals].
- Please suggest three specific places where I could add further detail to support a claim.
- Please suggest two other ways I could organize my paper.
- Please suggest counterarguments for my claims.

2 Saying "please" is not necessary, but I like to think that if artificial intelligence ever achieves sentience it will remember that I was polite. It also has been shown to provide better outputs, as has emphasizing the importance of the work, such as "this is very important for my job" (Yin et al., 2024).

- Please suggest three places to improve my transitions.
- Please identify three places I could condense a sentence.
- Please identify three places I could revise passive voice to active voice.
- Please identify any phrases or words that I use too often and suggest revisions or alternate wordings.

Although many students will ask GenAI for source suggestions, we have not included example revision guidance relating to sources because of the tendency to hallucinate sources that is common to all GenAI.

TEACHING CRITICAL AI LITERACY

Some of my students loved the revision suggestions that the large language model gave them. Other students were skeptical. One student said that GenAI was not useful because, when she asked it to outline her essay, it changed her wording. I suggested that she tell GenAI to give her an outline using her wording, and she liked that result much better. Other students worried that using GenAI would interfere with their own creativity, while others expressed anxiety about using the technology because they had been told that they would get into trouble if they used GenAI to help write their essays.

Regardless of how students might feel about GenAI at the end of the semester, we believe that, after these lessons, students will enter different writing spaces with critical knowledge of what GenAI can (and cannot) do, and with skills for leveraging GenAI for revision if they choose to use it. Ideally, students will engage feedback from GenAI the way they would use feedback from a workshop; they will reflect on its advice and consider how to incorporate it into their writing while keeping in mind their own voice, audience, and goals. In this way, we are practicing engagement with GenAI as a form of critical AI literacy Citing Maha Bali (2023), the MLA-CCCC Joint Task Force on Writing and AI (2024) defines critical AI literacy as "a set of skills and an orientation that might include skepticism, questioning, situatedness, and an awareness of power" (p. 21). Our goal is to highlight the importance of writer agency and choice in defining their own work and questioning the hegemonic, Western, academic feedback that GenAI's paradigm is based in.

Through this chapter, we have argued that writing teachers should teach critical GenAI literacy so that students understand the limitations of GenAI as well as what constitutes useful feedback. Through students developing an understanding of the genre, audience, and purpose of an assignment and identifying specific areas for improvement, we can connect this digital technology to strong writing process skills. We also advocate for teaching prompt engineering

that places GenAI into the role of a helpful assistant that offers specific, contextual feedback in narrowly defined tasks whereby the human writer remains the expert. The writer then retains the agency and uses GenAI as one possibility in a toolbelt of revision skills while making use of what GenAI can offer.

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