

AT A GLANCE

Intentional GenAI Use/Non-Use in Writing Processes

How might we design use/non-use of AI within writing tasks to intentionally develop targeted cognitive skills?



The Problem Landscape

Writing is one of the primary vehicles through which students develop reasoning, argumentation, synthesis, and critical analysis. GenAI can now produce “polished” essays on command — allowing students to bypass the very struggle that makes writing cognitively valuable. The core question is not whether students use GenAI, but how, and whether they retain cognitive ownership of their thinking.

Why does this problem exist?

- When students delegate the thinking work of writing to GenAI, they reduce their engagement with the effortful processes that build deep understanding — a process called cognitive offloading.
- Students who passively accept AI-generated text without modification see a decrease in essay quality; those who actively engage with and modify AI output see significant improvement.
- AI-generated text is linguistically fluent, triggering the “fluency heuristic:” students mistake the ease of reading polished-appearing output for genuine understanding.
- A “performance paradox” is at play: students’ short-term task performance may improve with GenAI assistance even as their durable learning is harmed.

What makes it hard to address?

- Writing serves a dual purpose: it is both a communication skill and a thinking tool. GenAI can genuinely help with the communication dimension (grammar, clarity) while also undermining the thinking dimension (generating claims, evaluating evidence, wrestling with complexity).
- Instructors cannot easily see from a final product which cognitive work a student actually did, particularly when work is developed outside the classroom.
- What counts as “the cognitive work of writing” varies by discipline, making one-size-fits-all policies ineffective. There are also legitimate open questions about how GenAI use affects the development of students’ distinctive writing voices over time.



What does promising practice look like?

- The impact of GenAI on writing and learning is not technologically determined — it is pedagogically determined. When instructors deliberately structure which cognitive tasks students offload and which they protect, GenAI can become a learning tool rather than a shortcut in some, but not all, contexts.
- Students explicitly taught to delegate lower-order writing tasks (grammar, brainstorming) to GenAI while focusing their own effort on higher-order analysis showed significantly greater gains in critical thinking than control groups.
- The most promising approaches share a design logic: make the cognitive purpose of each writing task explicit, sequence AI-free and AI-assisted phases intentionally, and require students to document the thinking they did versus what the AI did.

Example Approaches

This packet includes four design sketches — synthesized from research and inspired by documented classroom practice. They are starting points to adapt, combine, or set aside. All four are grounded in a common logic: making explicit which parts of the writing process students own and which parts GenAI assists and creating structured moments to reflect on that distinction. All would require careful adaptation to educational context, purpose, and student developmental level.

Example 1: The Cognitive Offload Blueprint

Setting: Upper-level high school and college, adapted for developmental level

Before a writing assignment begins, the instructor leads a brief lesson on cognitive offloading, helping students distinguish between tasks that can productively be delegated to AI (e.g., grammar checking) and tasks that must be protected for learning to occur (e.g., developing a thesis, evaluating evidence). Students receive a “Cognitive Task Map” — a three-column document listing the specific tasks involved, the learning purpose of each, and a GenAI use designation: Protect (do independently), Offload (AI-assisted is acceptable), or Collaborate (use AI as a thinking partner). The map is submitted alongside the final product with a brief reflection.

Example 2: The Draft, Dialogue, Diverge Protocol

Setting: High school and college, adapted for developmental level

Writing assignments are structured into three phases. In Phase 1 (Draft), students write independently with no GenAI access — generating their own claims, evidence, and reasoning. In Phase 2 (Dialogue), students bring their draft to a GenAI tool and use instructor-provided prompts to engage it as a critical thought partner (e.g., “What are the three strongest counterarguments to my argument?”), documenting the exchange in a log. In Phase 3 (Diverge), students return to AI-free writing and revise, but must diverge from GenAI’s suggestions in one substantive way. The final submission includes all three phases and an annotation on how the dialogue changed their thinking.

Example 3: The Voice and Judgment Workshop

Setting: Upper-level high school and college, adapted for developmental level

Students write a short passage in their own voice, then prompt a GenAI tool to write on the same topic. Using a structured framework, they complete a side-by-side analysis: What does the GenAI version do well? What does it lack? Where does it make generic claims the student made specific? Where does it produce confident-sounding text that says very little? Students then write a brief “Voice Statement” — modeled on an artist’s statement — articulating what is distinctive about their writing perspective and what they want to protect as they develop as writers.

Example 4: Human vs. AI Blind Comparison

Setting: High school and college, adaptable across disciplines

The instructor presents two essays on the same topic without labels — one written by a human, one generated by AI. Students read both carefully, note which they believe is AI-generated and why, then compare observations in small groups before the instructor reveals the answer. The class discusses what patterns distinguish AI and human writing: absence of traceable sources, argument that stays general without taking a genuine position, or confidence unsupported by evidence.

This is a summary of the full Resource Packet. The full packet is available on request. The packet contains an expanded description of potential approaches, limitations and contextual considerations, research citations, and a tools & templates section.