

Teaching students the connection between writing and thinking

By Loleen Berdahl

Across the disciplines, be it through research papers, reflective essays, written exam questions, or other written artifacts, the act of student writing plays an important role in developing thinking skills. When students outsource their writing assignments to AI, this opportunity to strengthen thinking skills is lost.

In [my last column](#), I wrote about the inevitable deskilling that will occur in the AI environment and the importance of proactively preserving “writing as thinking.” In this column, I explain why I believe this is necessary and how we can do so.

Understanding the connection between writing and thinking

When we attempt to put words to a page, we surface our areas of confidence and confusion, identify the holes in our logics, and bring forward new creative ideas. As [Dan Shipper writes](#), “a certain kind of thinking is only possible through writing. ... When you turn the vast, interconnected network of thoughts, feelings, and ideas in your mind into a line of words, you find sequence, order, and story. You expose fallacy and fuzziness. ... And writing doesn’t *just* tell you what you already think somewhere in the cobwebbed attic of your brain. It actively helps you to generate new—and better—thoughts and ideas as you do it.”

Research suggests that writing is tied to [critical thinking](#) (particularly inference and scientific reasoning) and, over time, [changes how the brain functions](#). Simply put, we become sharper thinkers when we write and more skilled at thinking the more we practice writing. This risks being lost if students abandon writing in favour of AI.

How instructors can strengthen the connection between writing and thinking

To protect writing as a tool for developing students' thinking, we must reconsider our teaching approaches. Here are ideas to start:

1. Emphasize learning and thinking over the written artifact. The 'products' of writing are both the learning and improved thinking emerging from the research and writing process and the actual written artifact. We need to use assignment structures and weighting to prioritize learning and thinking,

Design assessments can include 'thinking evidence'. Examples:

- Have students submit both a research paper and an accompanying reflection worksheet in which students answer specific questions. (Examples from [John Warner](#): "What have you discovered that is new to you? What line, idea, or concept occurred to you while writing that you hadn't planned on? ... What do you know now that you didn't know before?")
- Accompany scaffolded assessments with a written or oral 'thought evolution' assignment in which students explain what changed in their thinking about the topic.
- Leading up to an assessment, have students submit journal entries describing their research and writing process, including what they are learning and how their thinking is evolving.

Use assessment weightings to convey the importance of thinking and learning. Place high weight on the 'thinking evidence' and low weight on elements that can reasonably be done by AI (e.g., grammar, formatting, bibliographic style), unless those elements are an important learning outcome for your course.

2. Be explicit with students about the linkage between writing and thinking. Ask students to discuss how they have experienced evolution in their own thinking through the writing process. Tell students about how writing improves your thinking. Play them [this short audio clip of Turing Award recipient Leslie Lamport](#) arguing "If you think you understand something, and don't write down your ideas, you only think you're thinking."

3. *Bring writing activities into the classroom.* Use classroom activities to promote writing as thinking. For example, have students write their answers to a particular question for five minutes, and then discuss their thinking process with a classmate. The University of Waterloo Centre for Teaching Excellence's [Using Writing as a Learning Tool](#) provides additional activities to consider.

4. *Provide students with writing study prompts.* Provide students with a list of short-answer and essay questions to practice as part of their exam preparation – even if the exam doesn't include such questions. As [Shane Parrish writes](#), "Writing is the process by which you realize that you do not understand what you are talking about. ... writing about something complicated and hard to pin down acts as a test to see how well you understand it."

Writing as thinking: call to action

[Paul Graham argues](#) that AI will lead to "a world divided into writes and write-nots. ... Instead of good writers, ok writers, and people who can't write, there will just be good writers and people who can't write. a world divided into writes and write-nots is more dangerous than it sounds. It will be a world of thinks and think-nots."

I believe that as university instructors we have an opportunity and imperative to push against this. I encourage all of us to do so.

Link: [Teaching students the connection between writing and thinking - University Affairs](#)