

TEACHING TIP OF THE MONTH

Teaching Tip of the Month

Date: November 2023

Theme: Using AI (Artificial Intelligence) to Support Critical Thinking

Tip 1: Use AI Tools to Craft Critical Thinking Questions

Despite the fear that AI will lead to reduced critical thinking, critical thinking skills continue to be in [high demand by employers](#). One way faculty can use AI tools to promote critical thinking is to prompt the AI tool to generate questions that reflect critical thinking tasks. For example, tasks involve analyzing and evaluating ideas and arguments, solving problems, and decision-making. (See [Enhancing critical thinking skills with AI-assisted technology](#)) Here are two ways to use AI tools to promote critical thinking:

- Feed a text to the AI tool and ask it to create a list of questions that prompt the reader to analyze, evaluate, synthesize, justify, or create something based on the text. See [Comparing AI-Generated Questions using Bloom's Taxonomy](#) on [The Hub](#) for examples of questions at each level of Bloom's Taxonomy using three AI tools.
- Prompt the AI tool to generate questions requiring students to evaluate, synthesize, and analyze information related to a problem or scenario. The problem or scenario can be one that you feed the tool, or you can prompt the tool to generate a response based on an issue or problem.

Tip 2: Direct Students to Evaluate AI-Generated Responses

Evaluation is one of the highest levels of Bloom's Taxonomy and an essential skill for critical thinking. Instructors can work with students to create a rubric to evaluate AI responses based on meaningful criteria to the discipline or course. Examples could include credibility, authenticity, accuracy of information, etc. You do not have to include grammar; however, sentence variety or creative use of language could be part of the criteria. Students can use the scale to:

- Evaluate AI-generated responses to determine what is missing and what would make the response more complete and authentic (human-like). Next, students can revise the responses accordingly. This exercise can highlight the importance of human intelligence when using artificial intelligence.
- Compare and contrast different responses to the same prompt and conclude which response best meets a certain criterion.

More Info on Teaching Tips

"Teaching Tips of the Month" began as a project of the Program for Active Learning in STEM (PALS) and Teaching to Increase Diversity and Equity in STEM (TIDES) grants. Many thanks to Ray Gonzales and Alla Webb, who served as Principal Investigators of the TIDES grants. You can view archived Teaching Tips of the Month on [The Hub](#). We welcome feedback and invite you to submit ideas for this publication to Angela Lanier, angela.lanier@montgomerycollege.edu