

# *Writing Spaces*

## Assignments & Activities Archive

### Ethical Use of Generative AI for Conducting Research

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# Ethical Use of Generative AI for Conducting Research

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## Overview

This activity demonstrates how to ethically use two Generative AI tools in the research stage of the writing process. In the last year, AI writing tools, most notably Chat GPT, have generated academic-integrity related concerns for university administrators and instructors. In a study conducted from the Spring to Fall semesters of 2023, half of students reported regular use of GenAI; however, their usage was relatively “unsophisticated,” according to the GenAI in Higher Education Fall 2023 Update (Shaw et al. 4).

While AI tools do present academic-integrity concerns, embracing AI ethically and finding ways to negotiate specific spaces for it within the college composition classroom could be very useful for doing some of the more labor-intensive work in the writing process. This activity instructs students on how to use AI tools ethically for research purposes by drawing on DEER praxis which emphasizes, “defined engagements with AI tools for specific purposes, and generous use of reflection” (Cummings et al. 1). More specifically, this activity breaks the research process into stages, evaluates and explores a specific AI tool for each stage, and provides a space for reflection and discussion. In doing so, the activity gives instructors a space to invite effective AI use for specific purposes in the college composition classroom while also promoting the ethical usage of the new technology.

## Time Commitment

1-3 class sessions depending on modifications.

## Materials

This activity requires a learning management platform (e.g. Google Docs, Canvas, or Blackboard), as well as computers or tablets with Internet access.

Additionally, students should have access to a university library's databases to access article PDFs that are not accessible through Elicit.

## Activity Process

- First, students should understand the abilities and limitations of AI chatbots. To do so, have students log on to Chat GPT ([chat.openai.com](https://chat.openai.com)) and ask general and specific factual questions vs opinion questions. For example, a general factual question could be: "Why do dogs bark?" A specific factual question could be: "How many children does Ed Sheeran have?" An opinion question could be: "Is the Florida Parental Rights in Education law ethical?" After students have received responses from Chat GPT, have them discuss the accuracy and quality of Chat GPT's responses. The goal of the discussion is to help students understand what Chat GPT's capabilities are, when it is best to use it, and when another search tool like Google or a scholarly database would produce more effective search results.
- Following the discussion, have students use Chat GPT to help develop their research questions. At this stage, students should have a research topic. Students can use Chat GPT to develop research questions by typing the prompt: "create open-ended research questions with the independent variable x and the dependent variable y." It is important to remind students to edit and refine the suggestions to best meet their intended research objectives.
- Once students have narrowed down and refined their research question with the help of Chat GPT, introduce

them to Elicit ([elicit.com](https://elicit.com)) to find sources. Elicit is an AI research assistant that specializes in locating and synthesizing scholarly articles. Elicit differs from other database search tools because it uses semantic similarity instead of a perfect keyword match. Therefore, it can find papers related to a research question even if the specific keywords do not appear in the paper.

- Once familiar with Elicit, have students type in their research questions and then list the resulting papers in order of relevance to the research question. For each paper, Elicit also provides a brief abstract summary that highlights the relevance of the paper to their research question.
- Next, students can read the papers' one -to-two sentence abstract summaries, “star” the most relevant papers, and ask Elicit to show more articles like those starred.
- It is important to note that while all the articles' text will appear on the screen in Elicit, images like graphs and charts will not. Additionally, not all articles on Elicit are open-access and available to download as PDFs, so it is necessary to advise students to search their university's library for inaccessible articles.
- Once students find relevant sources, they can also use Chat GPT to help summarize/explain difficult paragraphs, tables, and statistics in simple language by prompting the AI: “Explain the paragraph/table/statistic to me” [paste table content/statistic].
- Following the activity, ask students to reflect on and discuss or write about the ethics of using AI tools in the research stage of the writing process. Some questions to help guide the reflection could be: Discuss how ethical it is to use AI to a) compose a research question, b) find sources, and c) help read and understand sources. What are some examples of

using AI tools unethically in the writing process? What do you believe determines whether AI usage is ethical or unethical in the writing process?

## Learning Outcomes

Students engaging in this activity/assignment will:

- Gain an understanding of the abilities and limitations of AI tools
- Think critically about using AI tools ethically for specific purposes
- Practice using AI tools for conducting research
- Evaluate the accuracy of AI output
- Reflect on the effectiveness and ethics of using AI tools for research purposes

## Learning Accommodations

- Some students may be averse to using AI tools for composing research questions. Students may choose whether or not to use Chat GPT for developing and refining their research questions if they are already skilled in this area.
- This activity works well for in-person instruction, but can also be used with asynchronous, digital delivery. For in person classes, students can discuss their reflections on AI orally; for asynchronous online classes, students can communicate with each other on discussion boards.

## Works Cited

Cummings, Robert, et al. "Generative AI in First-Year Writing: An Early Analysis of Affordances, Limitations, and a Framework for the Future." *Computers and Composition*,

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