

Worksheet: Refining a Research Question with Generative AI

Name:

Discipline/Major/Concentration:

Purpose: This assignment will help you refine a research question and generate search terms for an issue you will explore in this class. The techniques you practice here can also be used for research tasks beyond this course.

Skills: This individualized homework assignment will help you refine a research question and generate search terms relevant to your research with an AI text generator.

Tasks: Follow the steps below and fill in your responses underneath the questions. Example responses are provided in italics.

1. **Pick one issue related to your discipline that you are interested in exploring in this course.**

Example: Protecting endangered species in the United States.

2. **On your own, come up with one question you have about this issue.**

Example: What is the best way to protect endangered species in the United States?

3. **Enter the following prompt into ChatGPT (or another generative AI program): “Ask me a question to help me refine this exploratory research question: ____.” Fill in the blank with your question from answer #2 above. Write the generated answer below.**

Example: Which specific factors contributing to the endangerment of species in the United States are you most interested in addressing (e.g., habitat loss, climate change, poaching, pollution)?

4. Respond to the question generated in answer #3.

Example: I am interested in addressing habitat loss, specifically the negative impacts of human growth on current U.S. ecosystems with endangered animals.

5. On your own (without AI assistance), turn this response into a refined research question—one that you can answer with exploratory research on this issue. (See the readings in this week’s folder for characteristics of effective research questions.)

Example: What are the negative impacts of human growth on current U.S. ecosystems with endangered animals?

6. Return to ChatGPT (or other program) and enter the following prompt: “Generate ten search terms I can use to answer this research question: _____. Each term must consist of 2-3 words.” Fill in the blank with your question from answer #5 above. Write the generated answers below.

Examples: Human expansion wildlife, Urban sprawl habitats, Population growth biodiversity, Habitat destruction USA, Development impact ecosystems, Urbanization endangered species, Human encroachment habitats, Infrastructure expansion wildlife, Demographic growth ecosystems, Habitat loss USA.

Now you have one research question and ten usable search terms to begin your research! Note that these will likely change and evolve as you conduct more research, but these should serve as a solid starting point.

