



NATIONAL INSTITUTE ON ARTIFICIAL INTELLIGENCE IN SOCIETY

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How to Write an Academic Paper with AI

This guide provides a step-by-step approach to effectively collaborating with AI for academic writing. Each step outlines key actions, their purpose, and essential takeaways to enhance research, structure, and clarity. Please check with your instructor what their policy on AI use in writing are; do not violate the instructor's policy.

1. Identifying the Research Problem

- Define the core issue or question your paper will address, highlighting gaps, misconceptions, or unresolved debates.
- Example: "Analyze scholarly debates around [your topic]. List main controversies, unresolved questions, and gaps in current knowledge. Identify and evaluate limitations in previous research, frameworks, or conventional thinking."

2. Refining the Conceptual Framework

- Explore existing perspectives, evaluate their strengths and limitations, and consider new ways to approach the topic.
- Example: "What key concepts, theories, and frameworks do scholars use to understand [your topic]? Identify main authors and theoretical approaches."

3. Idea Development

- Utilize AI to brainstorm, expand, and refine concepts, ensuring clarity and logical progression. You need to provide an original, novel idea, your own unique take on the problem.
- Example: "Search academic literature for work similar to my idea that [describe your idea]. What makes my approach different?"

4. Evidence Search

- Review available empirical evidence. Incorporate real-world examples, historical cases, or scenarios to illustrate key arguments.
- Example: "What empirical studies or cases support or challenge my argument that [state argument]? Sort by strength of evidence."

5. Title and Abstract Development

- Draft and refine the title and abstract, ensuring they clearly reflect the focus and significance of the paper.
- Example: "Suggest a few titles. Write an abstract to include my ideas."

6. Structuring the Paper

- Create a detailed outline, organizing sections logically.

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- Example: Write a detailed outline in accordance with my field’s conventions (e.g., introduction, literature review, analysis, case studies, conclusion).

7. Writing in Sections

- Work on the paper one section at a time, progressively developing arguments and integrating supporting evidence. Remember, AI cannot produce meaningful text of more than about 1000 words.
- Example: “Write out section X, ensure coherence, include additional examples, or supporting arguments.”

8. Argument Test:

- Check your claims against possible critique or objections.
- Example: “Identify unstated assumptions and potential counterarguments or contrary evidence to my claims.”

9. Iterative Refinement

- Revisit drafts multiple times, refining language, coherence, and argumentation.
- Example: “Elaborate and elucidate this paragraph [past your draft paragraph].”

10. Connecting Ideas to Practical Applications

- Discuss how research or argument can inform practice, policy, or further study.
- Example: “Write a section on practical implications of my paper.”

11. Cross-Checking References

- Verify all citations for accuracy, relevance, and alignment with the paper’s arguments.
- Example: Go to Google Scholar to check all the references. Read at least abstract, but better the entire papers you are citing; make sure they say what you believe they say.

Key Lessons

1. **Start with a Clear Idea** – Define the problem or question early for a focused argument.
2. **Use AI as a Tool, Not a Replacement** – AI can enhance brainstorming and refinement but should not substitute critical engagement. You need to give AI an original idea; it cannot produce one without you.
3. **Write and Revise in Sections** – Breaking the paper into components allows for more effective refinement.
4. **Support Arguments with Established Knowledge** – Use recognized perspectives to strengthen claims.
5. **Incorporate Concrete Examples** – Illustrate theoretical discussions with real-world cases.
6. **Ensure Practical Relevance** – Demonstrate how arguments contribute to broader discussions or applications.
7. **Review and Polish Thoroughly** – Refine drafts iteratively, ensuring coherence, clarity, and scholarly rigor.
8. **Take full responsibility** – Even though AI can be entrusted with some of the work, its human operator is 100% responsible for the output.