AI Researchers
Embedding Responsible AI in Research

AI READINESS TOOLKIT

UC4-01 Use case 4: Academic writing

AI prompt template library for academic writing

Twenty adaptable prompts covering the stages of writing a research paper

AT A GLANCE

Twenty ready-to-use AI prompts for seven stages of writing a research paper, from planning the structure to the abstract and final revision. Every prompt follows one principle: the researcher provides the knowledge and direction, AI assists with a defined task, and the researcher evaluates, verifies and decides. Placeholders make each prompt easy to adapt to any discipline. Arguments, claims and authorship remain the researcher's.

TYPE
Template

FORMAT
PDF

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WHO IT IS FOR
Researchers at any career stage writing for publication

FRAMEWORK BARRIERS
Trust in AI, Know-how, This task

HUMAN-ONLY BOUNDARY

Arguments, claims, original meaning and authorship remain those of the researcher.

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Introduction: Using GenAI as an Academic Writing Assistant

Academic writing is a fundamental part of the research process. Researchers need to communicate complex ideas clearly, construct coherent arguments, connect their claims to existing evidence, describe methods accurately, present findings, and explain the contribution of their research. Academic writing is therefore not simply a matter of improving language: it is closely connected to scholarly reasoning and decision-making.

Generative Artificial Intelligence (GenAI) can support researchers throughout this process. Large language models can help researchers organise ideas, explore alternative ways of presenting an argument, improve clarity and coherence, identify weaknesses in a text, summarise or restructure researcher-provided information, and adapt writing to different academic purposes.

However, using GenAI effectively for academic writing requires more than asking an AI tool to “improve this text” or “write my literature review.” The quality and reliability of the output depend substantially on the instructions, context, and source material provided by the researcher. Researchers also need to critically evaluate AI-generated suggestions rather than automatically incorporating them into their manuscripts.

The guiding principle of this Prompt Template Library is:

Researcher provides the knowledge and scholarly direction → GenAI assists with a defined writing task → Researcher evaluates, verifies, and decides.

The researcher remains responsible for the intellectual content of the work. This includes deciding what research problem matters, selecting appropriate theories and evidence, interpreting results, developing arguments, drawing conclusions, and determining what constitutes a contribution to knowledge.

GenAI can help researchers articulate and critically examine these decisions, but it should not become the source of unverified scholarly claims.

For example, there is an important difference between asking:

“Write a literature review showing that AI literacy increases researchers' adoption of GenAI.”

and asking:

“Using only the studies provided below, assess whether there is sufficient evidence to argue that AI literacy increases researchers' intention to adopt GenAI. Distinguish direct empirical evidence from indirect or theoretical support, and identify evidence that contradicts or does not support this relationship.”

The second prompt places the researcher in greater control of the task. It defines the evidence base, establishes constraints, and asks the AI to evaluate rather than manufacture support for a predetermined conclusion.

How to Build an Effective Academic Prompt

Using Generative AI effectively for academic writing depends not only on the capabilities of the AI tool but also on how the researcher defines the task. A well-designed academic prompt reduces this ambiguity. It tells GenAI what role it should play, what the research context is, what information it should work with, what it should do, what it should not do, and how the answer should be presented.

For the purposes of this library, an effective academic prompt can be built around six components:

ROLE + CONTEXT + INPUT + TASK + REQUIREMENTS + OUTPUT

For example:

Role: Act as an academic writing assistant with expertise in management research.

Context: I am writing the literature review of a journal article examining researchers' adoption of GenAI.

Input: [Insert paragraph / findings / notes / source material]

Task: Improve the logical flow and connections between the arguments.

Requirements: Preserve my claims and citations. Do not introduce new evidence or references. Identify any claim that appears insufficiently supported.

Output: First provide the revised text, then briefly explain the main changes you made.

Prompt Library by Stage of Academic Writing

This section provides a practical library of 20 adaptable prompts covering the main stages involved in writing a research paper. The prompts are designed to help researchers use GenAI not only to improve language, but also to structure arguments, critically assess drafts, strengthen connections between sections, and communicate research findings more clearly.

The library focuses on seven areas that are particularly relevant when preparing an academic paper:

> Planning and structuring the paper
>
> Writing the introduction
>
> Literature review and theoretical framework
>
> Developing hypotheses and propositions
>
> Writing the methodology
>
> Presenting and discussing results
>
> Abstract, title, conclusions and final revision

The templates use placeholders such as [RESEARCH TOPIC], [INSERT TEXT], and [INSERT SOURCES]. Researchers should replace these with information from their own study.

A general principle applies to all prompts:

GenAI should work with the researcher's evidence and arguments, not create missing evidence on the researcher's behalf.

PLANNING AND STRUCTURING THE PAPER

At the beginning of the writing process, GenAI can help researchers organise existing ideas, examine alternative structures, and identify gaps in the planned argument. Its role should be to help researchers structure what they already know, rather than independently determine what the paper should claim.

PROMPT 1 — DEVELOP A PAPER OUTLINE

Purpose: Transform research ideas into a coherent initial paper structure.

PROMPT TEMPLATE

Act as an academic writing assistant.

I am preparing a research paper on [RESEARCH TOPIC]. My research question is [RESEARCH QUESTION], and the main contribution I intend to make is [PROPOSED CONTRIBUTION].

Here are my main ideas, theories, methods, and findings:

[INSERT NOTES]

Propose a logical structure for the paper. For each major section, explain its purpose and the key argument or information it should contain.

Use only the information I have provided. Do not invent findings, theoretical arguments, or contributions.

Present the output as a structured outline with headings, subheadings, and a short description of each section.

RESEARCHER CHECK

Does the proposed structure reflect the actual research question and contribution, or has GenAI implicitly changed the focus of the paper?

PROMPT 2 — COMPARE ALTERNATIVE PAPER STRUCTURES

Purpose: Explore different ways of organising the same research paper.

PROMPT TEMPLATE

Based on the research question, contribution, and material below, propose three alternative ways of structuring this paper.

[INSERT RESEARCH QUESTION, CONTRIBUTION AND CURRENT OUTLINE]

For each alternative, explain:

its organising logic;

its main advantages;

its potential weaknesses;

the type of argument it emphasises.

Do not recommend an option until you have compared all three.

RESEARCHER CHECK

The most fluent or conventional structure is not necessarily the structure that best communicates the study's contribution.

PROMPT 3 — CHECK COHERENCE ACROSS SECTIONS

Purpose: Determine whether the main components of the paper are aligned.

PROMPT TEMPLATE

Review the following research question, theoretical framework, hypotheses, methodology, findings, and claimed contribution:

[INSERT MATERIAL]

Assess their alignment. Identify any case where:

the research question is not addressed by the analysis;

a hypothesis is not grounded in the theoretical framework;

the methodology does not provide evidence needed to answer the research question;

a conclusion goes beyond the reported findings;

the claimed contribution is not demonstrated by the study.

Do not rewrite the paper. Present the result as an alignment diagnosis and identify issues that require researcher attention.

WRITING THE INTRODUCTION

GenAI can be particularly useful for examining whether an introduction establishes a convincing progression from research context → problem → gap → research question → contribution.

PROMPT 4 — DIAGNOSE AN INTRODUCTION

Purpose: Evaluate whether an introduction performs its academic function effectively.

PROMPT TEMPLATE

Act as a critical academic reader. Review the following introduction:

[INSERT INTRODUCTION]

Evaluate whether it clearly establishes:

the research context;

why the topic matters;

what is already known;

the unresolved problem or gap;

the research question/objective;

the expected contribution.

Identify missing or weak connections between these elements. Do not rewrite the introduction yet.

PROMPT 5 — STRENGTHEN THE RESEARCH PROBLEM AND GAP

Purpose: Improve how the paper establishes the need for the research.

PROMPT TEMPLATE

Below is my current explanation of the research problem and literature gap:

[INSERT TEXT]

Analyse whether the claimed gap follows logically from the evidence and citations contained in the text.

Distinguish between:

gaps that are supported by the cited literature;

claims that appear plausible but require additional evidence;

claims that are too broad to be justified by the information provided.

Then suggest how I could formulate the gap more precisely without introducing new evidence or references.

This prompt is particularly valuable because GenAI can easily make research gaps sound more convincing than the underlying evidence warrants.

PROMPT 6 — IMPROVE THE INTRODUCTION'S ARGUMENTATIVE FLOW

Purpose: Move from a collection of introductory paragraphs to a coherent argument.

PROMPT TEMPLATE

Review the introduction below for argumentative flow:

[INSERT INTRODUCTION]

Examine how each paragraph leads to the next and whether the overall progression from research context to research question and contribution is clear.

First identify problems in sequencing, repetition, or transitions. Then propose a revised structure. Finally, revise only those passages where changes are needed.

Preserve my claims and citations and do not introduce new evidence.

PROMPT 7 — CLARIFY THE PAPER'S CONTRIBUTION

Purpose: Formulate a contribution that is specific and consistent with the study.

PROMPT TEMPLATE

My research question is:
[INSERT RQ]

My main findings are:
[INSERT FINDINGS]

My current statement of contribution is:
[INSERT CONTRIBUTION]

Assess whether the claimed contribution follows from the research question and findings.

Identify any overclaiming or vague statements. Then propose 2–3 more precise formulations of the contribution.

Do not claim novelty or theoretical contribution unless this can be supported by the information provided.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This is one of the areas where GenAI can provide substantial assistance, particularly in helping researchers move from describing individual studies to synthesising relationships among them.

PROMPT 8 — DIAGNOSE A DESCRIPTIVE LITERATURE REVIEW

Purpose: Identify where a literature review summarises rather than synthesises.

PROMPT TEMPLATE

Act as a critical academic reviewer. Examine the literature-review section below:

[INSERT TEXT]

Identify passages that:

summarise studies individually;

synthesise findings across studies;

identify agreement or disagreement;

establish theoretical relationships;

identify unresolved issues.

Explain where the review remains excessively descriptive and suggest how its analytical synthesis could be strengthened.

Do not introduce studies or evidence that I have not provided.

PROMPT 9 — SYNTHESISE A SET OF STUDIES

Purpose: Develop an evidence-grounded synthesis from researcher-selected sources.

PROMPT TEMPLATE

Below are abstracts/notes from studies relevant to [TOPIC]:

[INSERT SOURCE MATERIAL]

Based exclusively on this material, synthesise:

the central concepts;

areas of agreement;

contradictory findings;

differences in theoretical explanations;

unresolved questions.

For every substantive conclusion, indicate which supplied studies support it.

Do not introduce additional studies, references, or findings.

PROMPT 10 — IDENTIFY CONTRADICTIONS AND TENSIONS

Purpose: Look beyond consensus in the literature.

PROMPT TEMPLATE

Using only the literature supplied below, identify findings or theoretical arguments that appear inconsistent, contradictory, or difficult to reconcile.

[INSERT MATERIAL]

For each tension:

identify the relevant studies;

explain the apparent contradiction;

determine whether differences in concepts, context, sample, methodology, or theoretical perspective might help explain it;

distinguish explanations supported by the supplied material from explanations that are only hypotheses requiring further investigation.

DEVELOPING HYPOTHESES AND THEORETICAL PROPOSITIONS

GenAI can help researchers test the logic of a hypothesis, but it should not be used to manufacture a theoretical justification for a relationship that the literature does not support.

PROMPT 11 — ASSESS THE EVIDENCE SUPPORTING A HYPOTHESIS

Purpose: Test whether a proposed hypothesis is sufficiently grounded.

PROMPT TEMPLATE

My proposed hypothesis is:

[INSERT HYPOTHESIS]

The relevant literature is:

[INSERT SOURCE MATERIAL]

Evaluate the evidence supporting this hypothesis.

Distinguish:

direct empirical support;

indirect empirical support;

theoretical or conceptual support;

contradictory or qualifying evidence;

evidence that is relevant but insufficient to support the proposed relationship.

Do not assume that the hypothesis is correct.

PROMPT 12 — CHECK THE LOGIC LEADING TO A HYPOTHESIS

Purpose: Identify missing steps in theoretical reasoning.

PROMPT TEMPLATE

Below is the theoretical argument leading to hypothesis [H#]:

[INSERT TEXT]

Reconstruct the argument as a sequence of logical steps.

Identify:

assumptions;

unsupported transitions;

concepts that are introduced but not adequately connected;

places where correlation is being treated as causation;

claims requiring additional evidence.

Do not rewrite the argument until after completing the diagnosis.

WRITING THE METHODOLOGY

For methodology sections, GenAI is particularly useful for clarity, organisation, completeness checks, and replicability, rather than for making methodological decisions on behalf of the researcher.

PROMPT 13 — CHECK THE COMPLETENESS OF A METHODOLOGY SECTION

Purpose: Identify missing methodological information.

PROMPT TEMPLATE

Act as a methodological reviewer. Examine the following methodology section:

[INSERT METHODOLOGY]

Identify whether sufficient information is provided about:

research design;

context and participants/sample;

data collection;

measures/instruments;

analytical procedures;

relevant ethical procedures.

Identify information that appears missing or unclear.

Do not invent missing methodological details. Mark them as information the researcher needs to provide.

PROMPT 14 — IMPROVE METHODOLOGICAL CLARITY AND REPLICABILITY

Purpose: Make a methodology easier for other researchers to understand and reproduce.

PROMPT TEMPLATE

Review the methodology below from the perspective of a researcher attempting to replicate the study:

[INSERT METHODOLOGY]

Identify passages where the procedure is ambiguous, incomplete, or difficult to reproduce.

Suggest improvements in clarity and sequencing without changing the actual research design or inventing procedural details.

PROMPT 15 — IMPROVE THE JUSTIFICATION OF METHODOLOGICAL CHOICES

Purpose: Distinguish describing a method from explaining why it was selected.

PROMPT TEMPLATE

Review the methodological choices described below:

[INSERT TEXT]

Identify which choices are merely described and which are adequately justified in relation to the research question and research design.

For choices lacking justification, formulate questions that I, as the researcher, should answer.

Do not generate a justification unless it follows from information I have provided.

PRESENTING AND DISCUSSING RESULTS

GenAI can help researchers distinguish what the study found from what those findings mean, which is particularly important when moving from results to discussion.

PROMPT 16 — IMPROVE THE PRESENTATION OF RESULTS

Purpose: Present findings systematically without introducing interpretation.

PROMPT TEMPLATE

Review the following results section:

[INSERT RESULTS]

Assess whether the findings are presented clearly and logically in relation to [RESEARCH QUESTIONS/HYPOTHESES].

Identify repetition, unclear sequencing, or places where interpretation has been introduced into what should be the presentation of results.

Suggest a clearer organisation without altering any values, statistical results, findings, or substantive meaning.

PROMPT 17 — STRUCTURE A DISCUSSION AROUND THE FINDINGS

Purpose: Build a clear bridge from results to interpretation.

PROMPT TEMPLATE

My main findings are:

[INSERT FINDINGS]

My research questions/hypotheses are:

[INSERT RQs/HYPOTHESES]

The relevant literature/theoretical framework is:

[INSERT MATERIAL]

Propose a structure for the discussion section that connects each major finding to the research question and relevant literature.

Do not write the full discussion yet. Provide an argumentative outline showing the purpose of each subsection or paragraph.

PROMPT 18 — COMPARE FINDINGS WITH PREVIOUS LITERATURE

Purpose: Avoid a discussion that simply restates the results.

PROMPT TEMPLATE

Compare my findings with the literature supplied below.

Findings:
[INSERT FINDINGS]

Previous literature:
[INSERT SOURCE MATERIAL]

For each major finding, identify whether it:

aligns with previous research;

contradicts previous research;

qualifies or extends previous findings;

cannot be meaningfully compared with the supplied evidence.

Explain the basis for each classification and identify the relevant source. Do not introduce additional literature.

CONCLUSIONS, ABSTRACT, TITLE AND FINAL REVISION

The final stage requires researchers to compress the paper without losing its central argument. GenAI can be especially useful for concision and consistency checks.

PROMPT 19 — STRENGTHEN THE CONCLUSION

Purpose: Ensure that the conclusion synthesises rather than merely repeats.

PROMPT TEMPLATE

Review the following conclusion:

[INSERT CONCLUSION]

Assess whether it clearly communicates:

the research problem;

the main findings;

the principal contribution;

relevant implications;

limitations and/or future research where appropriate.

Identify unnecessary repetition of the abstract, introduction, or results.

Suggest a more concise structure without introducing new findings or claims.

PROMPT 20 — WRITE OR IMPROVE THE ABSTRACT FROM THE PAPER

Purpose: Produce a concise representation of the completed research.

PROMPT TEMPLATE

Using only the information supplied below, draft an academic abstract of no more than [WORD LIMIT] words.

Include:

research problem/purpose;

research question or objective;

methodology;

main findings;

principal contribution/implication.

[INSERT RELEVANT CONTENT FROM PAPER]

Do not introduce claims, findings, numbers, or contributions not contained in the supplied material.

After the abstract, identify any important information that was missing from my input and therefore could not be included.

About this resource

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