AI Researchers
Embedding Responsible AI in Research

AI READINESS TOOLKIT

UC4-03 Use case 4: Academic writing

Specialised AI tools for academic writing

A stage-by-stage guide to purpose-built tools, and to checking what they produce

AT A GLANCE

A stage-by-stage guide to purpose-built AI tools for academic writing: finding and reading literature, managing and checking references, improving language and choosing a journal. For each stage it explains what the tools bring, their risks and how to check what they produce. Tools covered include Semantic Scholar, Elicit, Zotero, scite and Writefull. Arguments, claims, meaning and authorship remain the researcher's.

TYPE
Case study

FORMAT
PDF

CONTRIBUTING PARTNER
UPF Barcelona School of Management

WHO IT IS FOR
Researchers finding, reading, citing, editing and submitting papers

FRAMEWORK BARRIERS
Know-how, Trust in AI, The rules

HUMAN-ONLY BOUNDARY

Arguments, claims, original meaning and authorship remain the researcher's.

Co-funded by the European Union

Co-funded by the European Union. Views and opinions expressed are however those of the author or authors only and do not necessarily reflect those of the European Union or the Foundation for the Development of the Education System. Neither the European Union nor the entity providing the grant can be held responsible for them.

Introduction: Why Use Specialised Tools?

General-purpose AI assistants can help with almost any writing task, but they are not built for any one of them. A growing group of specialised tools has been designed for specific parts of academic work: searching the scholarly record, reading papers, managing references, editing academic English, and preparing a manuscript for submission.

These tools have three practical advantages. They are often grounded in scholarly databases rather than the open web, so their results point to real papers. They are narrow, so what they do to your text is easier to predict and check. And they are integrated into the places researchers already work, such as Microsoft Word, Overleaf and reference managers.

They are not risk-free. They still rely on AI models that can misread a paper, overstate a finding or change the meaning of a sentence. Several of them have added generative features (paraphrasing, drafting, "AI writers") that raise the same questions of accuracy and authorship as general assistants. And each one handles your unpublished text differently.

The guiding principle of this guide is:

> Choose the right tool for the task → Understand what it does with your text → Check its output against the source or your intended meaning. Always remember that the researcher, not the machine, is the author.

This guide covers specialised tools only; general-purpose assistants such as Claude, ChatGPT or Gemini are addressed elsewhere and are proposed for different purposes. While the tools presented in this guide can be powerful tools to achieve the aims here described, they should be understood as illustrative examples. There might be others and, in any case, this guide is not intended as endorsement of any of them.

The guide follows five stages of writing a paper: discovering literature, reading it, organising and citing it, revising the language, and preparing for submission. For each stage it describes the main tools and gives step-by-step techniques.

Tools and features change often: the descriptions reflect them as of September 2026 and should be checked against current documentation.

Before Choosing a Tool: Four Questions

Specialised tools look similar from the outside. Four questions help tell them apart and decide whether a tool is appropriate for a given task.

QUESTION	WHY IT MATTERS	WHERE TO LOOK
What does it search, or what was it trained on?	A tool can only find what is in its database. Many rely on open sources such as Semantic Scholar and OpenAlex, which cover some fields, languages and book literature poorly.	The tool's "about" or coverage page; your librarian
What happens to your text?	Some tools store what you upload or use it to improve their models; others offer plans that do neither (for example, Trinka's Confidential Data Plan or DeepL Write Pro).	Privacy policy; data or enterprise plan terms
Can you trace the output?	Results you can link back to a specific paper or passage are much easier to verify than free-standing summaries.	Try it on a paper you know well

QUESTION	WHY IT MATTERS	WHERE TO LOOK
Is it approved and paid for?	Your library may already license some tools (for example, Keenious or scite), and your institution may restrict others for unpublished work.	Library website; institutional AI policy

Tool Map by Stage of Writing

STAGE	MAIN TASKS	EXAMPLES OF TOOLS	MAIN CHECK
1. Discover	Find relevant and recent literature	Semantic Scholar, Keenious, Consensus, Elicit, ResearchRabbit, Litmaps, Connected Papers	Is the source real, relevant and still standing?
2. Read	Understand papers faster and more accurately	Semantic Reader, SciSpace, Scholarcy	Does the summary match the paper?
3. Organise and cite	Manage references; check how sources are cited	Zotero, scite	Are details correct? Any retractions?
4. Revise language	Improve grammar, clarity, consistency and style	Writefull, Paperpal, Trinka, DeepL Write	Has the meaning or certainty changed?
5. Submit	Choose a journal; run pre-submission checks	Journal finders, Paperpal Preflight, similarity checkers	Is the journal credible and a real fit?

Stage 1 — Discover Literature

Specialised discovery tools search the scholarly record directly. They are covered in more depth in the toolkit guide AI Lit Reviews: Source Enrichment and Validation; this section focuses on the tools most useful while writing.

Semantic Scholar is a free academic search engine from the Allen Institute for AI. It adds one-sentence AI summaries (TLDRs) to search results, shows highly influential citations, and sends alerts when new papers match your interests.

Keenious works inside Microsoft Word and Google Docs. It reads your draft, or a paragraph you select, and recommends papers related to that text. Some university libraries license it and connect it to their holdings.

Consensus and **Elicit** answer research questions from academic papers. Consensus shows how studies divide on yes/no questions; Elicit places papers in a table with columns you define, such as sample, method and main finding.

ResearchRabbit, Litmaps and Connected Papers map the papers around one or more “seed” papers you already trust, showing earlier, later and similar work.

What it brings: discovery grounded in real publications, including work that your usual searches miss. Watch for: uneven coverage of books, non-English and regional journals, and summaries based only on abstracts.

TECHNIQUE 1 — DRAFT-DRIVEN DISCOVERY PURPOSE

Find literature that matches what you are actually writing.
Tools: Keenious; Semantic Scholar

How to do it: 1. Open your draft in Word and launch the Keenious add-in. 2. Select a single paragraph that makes a key argument, rather than the whole document, to get targeted results. 3. Filter the recommendations by year to surface recent work, and note any author or journal you do not recognise. 4. Open each promising paper in Semantic Scholar to read its abstract, check its citations and save it to your library. 5. Repeat with a paragraph that presents a counter-argument or limitation.

Researcher check: A recommendation means the text is similar, not that the paper supports your claim.

Technique 2 — Test a claim against the evidence Purpose: See whether the literature agrees with a claim before relying on it.
Tools: Consensus; Elicit

How to do it: 1. Turn the claim into a short question, e.g., “Does peer feedback improve the quality of academic writing?” 2. In Consensus, review how studies divide between yes, possibly and no. Filter by study design and year. 3. Open the papers in the “no” and “possibly” groups, not only those that agree. 4. In Elicit, add columns such as population, design and main finding to compare the studies side by side.

Researcher check: Is the evidence from a population and context close to your own study?

Stage 2 — Read and Understand Papers

Reading tools help researchers move through papers faster and understand difficult passages. Their greatest risk is also their main appeal: a good summary can make it feel unnecessary to read the paper. Summaries are a guide to reading, not a substitute for it.

Semantic Reader (from Semantic Scholar) is an enhanced PDF reader. It shows citation cards with a short summary of each cited paper where it appears in the text, skimming highlights that label sentences as goal, method or result, and plain-language definitions of terms on demand.

SciSpace lets you ask questions about a PDF and get answers that point to the relevant passage. It can explain tables, equations and technical terms, and compare several uploaded papers in a summary table.

Scholarcy turns articles into structured summary cards covering key findings, methods, limitations and references, which can be exported to reference managers.

What it brings: faster screening of many papers and help with unfamiliar methods or terminology. Watch for: summaries that are more confident or general than the paper, and details missed in tables or supplementary material.

Technique 3 — Question a paper, then check the passage Purpose: Extract precise information from a paper and verify it.
Tools: SciSpace

How to do it: Upload the paper and ask targeted questions that require the tool to point to the text, for example: “What is the sample, and how was it selected? Quote the relevant passage.” “Do the authors claim a causal effect, or an association? Quote the sentence.” “What limitations do the authors acknowledge?” “Explain Table 2 in plain language.” Then go to each quoted passage in the original PDF and read it in context.

Researcher check: Would you be comfortable citing this paper if a reviewer asked you what it found?

> Technique 4 — Skim first, then read closely Purpose: Decide which papers deserve a full reading.
> Tools: Semantic Reader; Scholarcy
>
> How to do it: 1. Open the paper in Semantic Reader and switch on skimming highlights to see the goal, method and results. 2. Use citation cards to decide which of its references you also need to read. 3. For papers you keep, read the full text, focusing on methods and results, and write your own notes. 4. Record in your reference manager whether you have read the full paper or only a summary.

Stage 3 — Organise and Cite

Zotero is a free, open-source reference manager. It captures references from publisher sites, formats citations in Word and LibreOffice, and flags items in your library that have been retracted, using data from the Retraction Watch database. The alert depends on DOIs, so save items from the publisher's page rather than from a search engine.

Scite shows how later papers have cited a given paper, classifying each citation as supporting, contrasting or mentioning and showing the citing sentence. Its reference check reviews a manuscript's reference list for retractions, editorial notices and contested sources.

What it brings: fewer errors in references, and early warning that a source has been retracted or disputed. Watch for: automated classifications that can be wrong, and retraction alerts that do not cover expressions of concern.

> Technique 5 — Pre-submission reference check Purpose: Make sure every reference is accurate and still standing.
> Tools: Zotero; scite
>
> How to do it: 1. In Zotero, check your project collection for retraction notices and missing DOIs. 2. Upload your manuscript to scite's reference check. 3. For each source flagged as retracted or with an editorial notice, read the notice and remove or qualify the citation. 4. For key sources with many contrasting citations, read two or three of the citing statements and decide whether your text needs to acknowledge the debate.
>
> Researcher check: A "supporting" count is not a measure of quality. Judge the contrasting evidence on its merits.

Stage 4 — Revise Language and Style

Academic language tools are trained or tuned on published research writing, so their suggestions usually suit academic prose better than general grammar checkers. They are particularly useful for researchers writing in a second language.

Writefull (Digital Science) works in Word and Overleaf. It gives language feedback tuned to academic writing and offers paraphrasing and help with titles and abstracts.

Paperpal works as a Word add-in and online. It offers language and clarity suggestions, academic rewriting, citation suggestions and a similarity check, and its Preflight feature runs pre-submission checks on a manuscript.

Trinka focuses on academic and technical English. Besides grammar, it checks consistency (spelling variants, hyphenation, abbreviations) and citation quality, and offers a plan under which text is not stored or used for training.

DeepL Write improves text in English, German, French and Spanish, with a choice of styles and tones. The paid version states that text is not stored or used to train its models.

These tools do two different kinds of work, which carry different risks:

KIND OF HELP	EXAMPLES	RISK	WHAT TO DO
Correction	Grammar, spelling, punctuation, consistency	Low	Review and accept selectively
Rewriting	Paraphrasing, rephrasing for clarity or tone, shortening	Medium	Compare with the original; check meaning, certainty and terminology
Generation	Drafting new text, suggesting citations, "completing" sections	High	Treat as a general AI assistant: verify every claim and source, and disclose use

Technique 6 — Accept suggestions selectively Purpose: Improve language without changing meaning.
Tools: Writefull; Paperpal; Trinka

How to do it: 1. Save a dated copy of the text before running the tool. 2. Review suggestions one by one; do not use "accept all." 3. Reject any change that alters disciplinary terms, hedging ("may suggest" → "shows"), the direction of a relationship, or the scope of a finding. 4. When a sentence is rewritten, read the old and new versions side by side and keep the one that says exactly what you mean.

Researcher check: A more fluent sentence is not necessarily a more accurate one.

TECHNIQUE 7 — CONSISTENCY PASS PURPOSE
Remove small inconsistencies that distract reviewers.
Tools: Trinka; Paperpal

How to do it: 1. Choose one variety of English (for example, American) and set it in the tool. 2. Run the consistency check and fix variant spellings, hyphenation, capitalisation of terms and first use of abbreviations. 3. Check that numbers, units and the names of variables are written the same way in text, tables and figures.

Technique 8 — Writing in a second language Purpose: Write well in English while keeping your own argument.
Tools: DeepL Write; Writefull

How to do it: 1. Draft difficult passages in the language you think in most clearly. 2. Translate, then revise with an academic language tool rather than accepting the first version. 3. Check key terms against the terminology used in your field's leading journals, not only against the tool's suggestion. 4. Read the final English version aloud and ask whether it says what your original said.

Researcher check: Translation tools can replace a precise technical term with a common near-synonym.

Stage 5 — Prepare for Submission

Journal finders match your title and abstract with journals that publish similar work. Publisher tools (Elsevier JournalFinder, Springer Nature Journal Suggester, Wiley Journal Finder) cover only their own journals; Web of Science Manuscript Matcher and JANE (for biomedical research) search across publishers.

Pre-submission checks such as Paperpal Preflight review a manuscript for common technical and formatting issues before it reaches the editor.

Similarity checkers such as iThenticate, usually available through your institution, compare your manuscript with published work. AI-writing detectors are a different matter: they can produce false positives, particularly for writers using a second language, and their scores should not be treated as evidence either way.

What it brings: a wider shortlist of journals and fewer desk rejections for avoidable reasons. Watch for: publisher bias in suggestions, and journals that look legitimate but are not.

> Technique 9 — Build and verify a journal shortlist Purpose: Choose a journal on evidence, not just a match score.
> Tools: Journal finders; Scimago; DOAJ
>
> How to do it: 1. Run your title and abstract through at least one cross-publisher tool and two publisher tools. 2. List the journals that appear more than once, plus any you already had in mind. 3. Verify each one: indexing (Scopus, Web of Science), open-access status in DOAJ, and ranking in Scimago. Use the Think. Check. Submit. checklist for journals you do not know. 4. Read the aims and scope and three recent articles. Would your paper sit comfortably among them? 5. Check article processing charges, review times and your institution's open-access agreements.
>
> Researcher check: Is the journal right for the argument and readership of the paper, not just its keywords?

Common Pitfalls and Quick Checklist

PITFALL	HOW TO PREVENT IT
Citing from a summary	Read the relevant section of any paper you cite; never cite from a summary card or chat answer.
Accepting all edits	Review suggestions individually; reject changes to meaning, certainty or terminology.
Treating coverage as complete	Combine AI tools with library databases and searches in other languages.
Sharing unpublished work carelessly	Check the tool's data terms and your institution's policy before uploading.
Trusting match scores	Verify journals independently; check indexing and credibility.
Forgetting disclosure	Check whether the journal requires you to disclose the use of AI tools, including editing tools.

QUICK CHECKLIST

☐ I know what data each tool searches and what it does with my text.

☐ Every source I cite has been found in an authoritative record and read, at least in the relevant section.

☐ I have reviewed language suggestions individually and kept my intended meaning.

☐ I have checked my references for retractions and contested sources.

☐ My target journal has been verified independently of the finder tool.

☐ I have disclosed AI use where the journal, institution or funder requires it.

> **SPECIALIZED TOOLS NARROW THE TASK**
> They do not narrow the researcher's responsibility.

About this resource

TITLE	Specialised AI tools for academic writing
TOOLKIT REFERENCE	UC4-03, use case 4: Academic writing
DEVELOPED BY	UPF Barcelona School of Management, Rodrigo Cetina
SUGGESTED CITATION	AI Researchers (2026). Specialised AI tools for academic writing. AI Readiness Toolkit, UC4-03. UPF Barcelona School of Management, Rodrigo Cetina. airesearchers.eu
QUALITY ASSURANCE	Reviewed by the AI Researchers consortium for quality, categorisation and alignment with the AI Engagement Framework. External peer review by senior academics is under way, and the item may be updated as a result.
VERSION	1.0, November 2026
PROJECT	AI Researchers: Embedding Responsible AI in Research. Erasmus+ Cooperation Partnership in Higher Education, KA220-HED-66835D2B. October 2025 to March 2028.
CONSORTIUM	University of Lodz (coordinator), FEP University of Porto, UPF Barcelona School of Management, ACEEU, NIPI (OPI PIB), European E-learning Institute and Momentum Marketing Services

Co-funded by the European Union

Co-funded by the European Union. Views and opinions expressed are however those of the author or authors only and do not necessarily reflect those of the European Union or the Foundation for the Development of the Education System. Neither the European Union nor the entity providing the grant can be held responsible for them.

AI Researchers
Embedding Responsible AI in Research