

A PRACTICAL GUIDE FOR TEACHERS

10 Ways to Use Gemini Notebook as a Researcher

PRACTICAL IDEAS | PROMPTS | CHECKS

MED KHARBACH, PHD

Educator • Researcher • Author

www.medkharbach.com

www.educatorstechnology.com

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INTRODUCTION

Gemini Notebook, formerly known as NotebookLM, is one of my favourite AI research tools. I have been using it for the last couple of years, and one of the things I appreciate most is the contained environment it provides. You bring your sources into a notebook and work directly with that collection. When Notebook answers a question, it points you back to the passages it used, which makes checking its response much easier.

This matters because one of the persistent problems with AI is hallucination. A fluent answer can include distorted claims, invented details, or connections that the original sources do not support. Working inside a defined collection does not make Gemini Notebook completely immune to these problems. You still need to open the citations and check the original material. In my experience, though, this source-grounded environment gives you much more control than an open-ended conversation with an AI chatbot.

I have also used Gemini Notebook with my Bachelor of Education students. What surprised me was how quickly they moved beyond the uses I had shown them. They began finding their own ways to question sources, compare ideas, prepare learning materials, and work through difficult readings. Some of their ideas made me reconsider how broadly the tool could be used in teaching and research.

Google has also added a growing collection of features during the last few months. You can now move from a set of sources to audio and video overviews, mind maps, quizzes, flashcards, infographics, and slide decks. The tool has become much more than a place to upload documents and ask questions.

I created this guide to share ten practical ways you can use Gemini Notebook in your teaching and research. Each idea includes a short explanation, a simple process to follow, a prompt you can adapt, and a reminder about what you should check before using the output. My aim is to help you see what the tool can do while keeping your own reading, interpretation, and professional judgment at the centre of the work.

QUICK ROUNDUP

What Gemini Notebook can do

Before we explore the different ways you can use Gemini Notebook, here is a quick look at what the tool currently offers. Google has added so many features that it is easy to miss some of them.

- **Source upload:** Build a notebook from PDFs, Google Docs, Google Slides, websites, YouTube videos, audio files, eBooks, images, and pasted text.
- **Source-grounded chat:** Ask questions about your materials and receive answers with citations that take you back to the relevant passages.
- **Source discovery:** Search for additional web or Google Drive sources connected to your topic.
- **Source organization:** With five or more sources, Notebook can automatically label and group them by topic. You can edit the labels or create your own.
- **Notes and reports:** Save useful responses as notes and generate summaries, briefing documents, FAQs, timelines, and study guides.
- **Mind maps:** Turn the main ideas in your sources into a visual map and explore relationships among concepts.
- **Audio and video overviews:** Transform sources into podcast-style discussions or narrated visual explanations, with controls for format, focus, length, language, and visual style.
- **Flashcards and quizzes:** Create interactive study materials, choose their difficulty, review missed answers, and track progress.
- **Infographics:** Create a visual summary and customize its detail, orientation, style, focus, and colour scheme.
- **Slide decks:** Generate a presentation directly from the sources in your notebook.

CHECK BEFORE YOU USE IT. Most features can be customized through a prompt. Tell Notebook who the material is for, what it should focus on, how detailed it should be, and the language it should use. Review the output before sharing it with students.

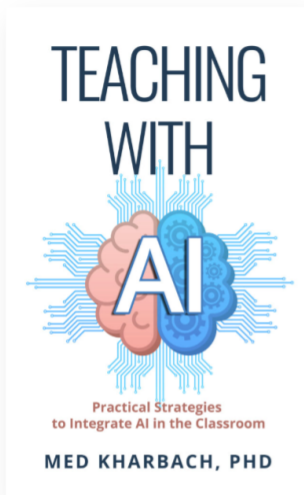
BEFORE YOU BEGIN

A few tips for better results

These simple practices have made Gemini Notebook more useful in my own work.

- **Keep each notebook focused.** Gemini Notebook can hold far more sources, but my own working rule is to stay around ten whenever possible. Once I upload too many, I find that responses become less focused and important differences among sources can blur. For a large project, I create several smaller notebooks organized by theme.
- **Give your sources clear titles.** Rename files before uploading them. A title such as Smith 2025 - AI and Student Writing is much easier to recognize in a citation than article-final-2.pdf.
- **Select only the sources you need.** You do not have to question every source in the notebook at the same time. Select the papers relevant to your current question and leave the others unchecked.
- **Ask focused questions.** Tell Gemini Notebook exactly what you want it to examine. Include the topic, audience, desired format, and level of detail when these matter.
- **Open the citations.** A citation is an invitation to verify. Read the passage Gemini Notebook used and check whether it truly supports the answer.
- **Return to the original source.** Source grounding improves accuracy, but it does not remove errors, missing context, or questionable interpretations. Confirm quotations, page numbers, findings, and methodological details in the original document.
- **Treat generated materials as drafts.** Review summaries, quizzes, study guides, infographics, and slides before sharing them with students. Check the content and make sure the language suits your learners.

Teaching with AI



01 / TEACHING & CLASSROOM PRACTICE

Teaching with AI

Practical Strategies to Integrate AI in the Classroom

How can teachers use AI purposefully while keeping students actively involved in their own learning? I wrote this book to connect AI literacy with the everyday decisions educators make about lessons, activities, tools, and assessment.

Across four parts and ten chapters, explore AI literacy and critical thinking, familiar pedagogical frameworks, classroom applications, and ethical reflection.

[Explore the book →](#)

[View on Amazon ↗](#)

Build AI literacy

Understand capabilities, limitations, and bias, and help students question what AI produces.

Plan with pedagogy

Connect AI use to SAMR, Bloom's revised taxonomy, TPACK, and Webb's Depth of Knowledge.

Strengthen your practice

Explore lesson planning, classroom prompts, professional learning, privacy, equity, and academic integrity.

[View Teaching with AI on Amazon](#)

10 WAYS to Use Gemini Notebook as a Researcher

Here are some practical suggestions on how to make the best of Gemini Notebook in your teaching and research:

01. Build a Literature Review Synthesis

When you have several papers open at once, the hardest part is rarely summarizing each one. The real work is seeing how they relate. Gemini Notebook can help you begin that comparison without losing sight of the papers themselves.

WHY YOU MIGHT USE IT

Upload five to ten papers on the same theme and ask Gemini Notebook to map where the authors agree, where they disagree, and where they seem to be answering different questions. This gives you a working map of the literature that you can test against your own reading.

HOW TO DO IT

- 1 Create one notebook for a clearly defined topic or review question.
- 2 Upload five to ten relevant papers. Give each source a clear title so you can recognize it in the citations.
- 3 Select the papers you want Gemini Notebook to compare, then ask one focused synthesis question at a time.
- 4 Open the citations, return to the original passages, and add your own notes about the strength and context of each claim.

TRY THIS PROMPT

Across these sources, identify: (1) areas of agreement, (2) areas of disagreement, and (3) places where the authors appear to talk past each other because they use different definitions, populations, or outcomes. Cite every point and name the sources involved.

CHECK BEFORE YOU USE IT. A source-grounded answer is still an AI-generated interpretation. Treat the synthesis as a map for your reading, then verify the cited passages before using it in your review.

02. Extract Quotations by Theme

You may remember that a paper discussed assessment validity, teacher agency, or student trust, yet finding every relevant passage can take longer than expected. Gemini Notebook can help you gather those passages in one place.

WHY YOU MIGHT USE IT

Upload the papers and ask for direct quotations connected to one tightly defined theme. The response includes source citations that take you back to the relevant passage. You can then check the wording and locate the page number in the original PDF.

HOW TO DO IT

- 1 Upload the papers in PDF form when page-level checking matters.
- 2 Name one theme and define what should count as relevant. Broad requests usually return broad results.
- 3 Ask Gemini Notebook to reproduce the wording exactly, keep each quotation separate, and attach a citation to every item.
- 4 Open each citation and compare the quotation with the original PDF before moving it into your notes or writing.

TRY THIS PROMPT

Find the passages in these papers that directly discuss assessment validity. Reproduce the exact wording, provide enough surrounding context to understand each quotation, and attach a source citation to every item. Do not paraphrase.

CHECK BEFORE YOU USE IT. Do not assume that the citation displayed by Gemini Notebook is a finished academic reference or a reliable, printed page number. Confirm the quotation and page in the original file.

03. Compare Sources that Take Different Positions

Sometimes you know that two or three papers approach the same issue differently, but the contrast remains difficult to state clearly. A focused source comparison can help you see exactly where the positions separate.

WHY YOU MIGHT USE IT

Upload the papers, select only those sources, and ask Gemini Notebook to compare their claims, evidence, assumptions, and definitions. This is especially useful when you are building an argument that places one study in conversation with another.

HOW TO DO IT

- 1 Choose two or three papers with a meaningful point of contrast.
- 2 Tell Gemini Notebook the issue you want compared. Avoid asking for a comparison of everything in the papers.
- 3 Ask it to separate the authors' claims from the evidence they use to support those claims.
- 4 Follow the citations and note whether the apparent disagreement comes from different findings, methods, populations, or definitions.

TRY THIS PROMPT

Compare how these three sources understand the role of generative AI in student writing. For each source, identify its main claim, evidence, assumptions, and definition of student agency. Then explain the most important points of disagreement. Cite every comparison.

CHECK BEFORE YOU USE IT. Gemini Notebook may make two papers look more directly opposed than they are. Check whether the studies examined the same learners, tasks, settings, and outcomes before you frame them as a disagreement.

04. Turn Papers into Audio Overviews

A long commute or a walk can become useful first-pass reading time. Gemini Notebook can turn the papers in your notebook into an AI-generated audio discussion that you can listen to before deciding what deserves closer reading.

WHY YOU MIGHT USE IT

Create an Audio Overview from one paper or a small group of related papers. You can choose a format, adjust the length, and give the speakers a focus. The result can help you hear the broad argument and recurring ideas while you are away from your screen.

HOW TO DO IT

- 1 Upload the paper or select a small set of related sources.
- 2 Open the Studio panel and choose Audio Overview.
- 3 Choose the format and length that fit your purpose, then add a focus prompt such as methods, findings, or classroom implications.
- 4 Listen for orientation, save questions that occur to you, and return to the paper for a close read before citing or teaching it.

TRY THIS PROMPT

Create an audio overview for a teacher who is deciding whether this paper deserves a close read. Focus on the research question, participants, method, main findings, limitations, and possible classroom relevance. Clearly distinguish the authors' findings from the hosts' interpretation.

CHECK BEFORE YOU USE IT. Audio Overviews are AI-generated and may contain inaccuracies or audio glitches. Their length also varies. Use them for screening and orientation, not as a substitute for reading the study.

05. Draft an Annotated Bibliography

Writing an annotated bibliography often begins with the same demanding task: returning to every source and deciding what matters for your project. Gemini Notebook can help you assemble a first draft while the sources are still close at hand.

WHY YOU MIGHT USE IT

Upload the sources you have collected and ask for one structured entry per source. You can specify the elements you need, such as purpose, method, findings, limitations, and relevance to your question. The draft gives you something concrete to review and revise.

HOW TO DO IT

- 1 Upload the sources and check that each title is clear and complete.
- 2 Describe your research question and the exact parts required in each annotation.
- 3 Ask for one entry at a time when you need careful detail, or request a consistent set of entries for a smaller group of sources.
- 4 Verify every factual statement, rewrite the annotation in your own analytical voice, and add the citation using your reference manager or the original publication details.

TRY THIS PROMPT

Draft an annotation for each selected source in 120-150 words. Include the study purpose, context or participants, method, main findings, stated limitations, and relevance to this research question: [insert question]. Keep description separate from my evaluation and cite each factual claim to the source.

CHECK BEFORE YOU USE IT. Gemini Notebook can summarize what is in a source, but it does not know why that source matters to your particular argument unless you make that judgment explicit. Your evaluation is the part that turns a summary into a useful annotation.

06. Prepare for a Conference Session

Conference programs often give you little more than a title, a short abstract, and a speaker biography. If the presenters have published work connected to the session, you can use that work to arrive with a much clearer sense of the conversation you are about to enter.

WHY YOU MIGHT USE IT

Upload papers by the panelists or keynote speaker and ask Gemini Notebook to identify each person's main argument, recurring concepts, and points of connection. You can then prepare questions that grow from their work instead of trying to understand everything while they are speaking.

HOW TO DO IT

- 1** Read the session description and identify the presenters whose work is most relevant to you.
- 2** Find one or two papers from each presenter that connect closely to the session topic, then upload them to one notebook.
- 3** Ask for a short profile of each argument before requesting a comparison across presenters.
- 4** Save a few questions to revisit during the session and revise them as you listen.

TRY THIS PROMPT

I am attending a conference panel on [insert topic]. Based on these papers, give me a concise account of each presenter's main argument, the concepts they return to, and the questions that remain open. Then suggest five informed questions I could listen for or ask during the session. Cite every summary to the relevant source.

CHECK BEFORE YOU USE IT. A presenter's published paper may not reflect the exact argument they will make at the conference. Use the notebook to prepare your attention, then let the live session change your understanding.

07. Cross-reference a Claim Across Sources

A claim can appear convincing when you read it in one paper. The picture may change once you ask how the rest of your literature treats it. Gemini Notebook can help you trace that claim across the sources you have already collected.

WHY YOU MIGHT USE IT

State the claim precisely and ask whether each source supports it, contradicts it, qualifies it, or does not address it. This can reveal where the evidence is consistent, where it is mixed, and where your collection still has a gap.

HOW TO DO IT

- 1 Write the claim as one specific, testable sentence.
- 2 Select the sources that could reasonably contain evidence about that claim.
- 3 Ask Gemini Notebook to classify the relationship of each source to the claim and cite the passage behind each classification.
- 4 Check the cited passages and record differences in population, context, method, and outcome before drawing a conclusion.

TRY THIS PROMPT

Evaluate this claim across the selected sources: “AI reduces cognitive load in formative assessment.” For each source, classify the claim as supported, contradicted, qualified, or unaddressed. Explain the evidence behind the classification, identify important differences in context or method, and cite every point.

CHECK BEFORE YOU USE IT. An unaddressed claim is not evidence against it, and a passing mention is not the same as direct evidence. Check what each study actually measured before deciding how much weight it carries.

08. Test your Draft Against its Sources

It is surprisingly easy for a sentence in your draft to move a little beyond the paper you cited. A cautious finding becomes a broad conclusion, or a claim about one group quietly turns into a claim about all learners. Gemini Notebook can help you spot that drift before a reviewer does.

WHY YOU MIGHT USE IT

Upload your manuscript with the papers it cites and ask Gemini Notebook to examine selected claims against the original sources. The useful part is the comparison: what your draft says, what the cited source says, and where the wording may be too strong, too broad, or only partly supported.

HOW TO DO IT

- 1 Upload the current manuscript and the exact sources cited in the section you want to check.
- 2 Work with a manageable section or a list of important claims instead of asking for a verdict on the entire manuscript.
- 3 Ask for the sentence from your draft, the source evidence, and a clear explanation of any mismatch.
- 4 Verify every flagged passage yourself and revise only after reading the relevant section of the original source.

TRY THIS PROMPT

Review the claims in the selected section of my manuscript against the uploaded sources cited there. For each claim, label it fully supported, partly supported, unsupported, or stronger than the source allows. Quote the relevant sentence from my draft, cite the source passage, and explain any mismatch without rewriting the claim for me.

CHECK BEFORE YOU USE IT. Gemini Notebook cannot decide whether your argument is sound as a whole, and it may miss an implied qualification. Use it as an additional source check, not as the final judge of your manuscript.

09. Compare Methodological Approaches

Methods can sound deceptively similar when you meet them in short definitions. The differences become clearer when you compare how authors describe the purpose, analytic steps, assumptions, and kind of claims each approach can support.

WHY YOU MIGHT USE IT

Upload two or three methodology papers or textbook chapters and ask Gemini Notebook to compare the approaches using only those texts. This works well for distinctions such as thematic analysis and content analysis because you can trace every explanation back to the authors you selected.

HOW TO DO IT

- 1 Choose authoritative methodology sources that clearly describe the approaches you want to compare.
- 2 Tell Gemini Notebook which dimensions matter to you, such as purpose, unit of analysis, coding process, researcher interpretation, and suitable research questions.
- 3 Ask it to preserve differences among authors instead of blending them into one generic definition.
- 4 Open the citations and return to the full methodological discussion before choosing or describing an approach.

TRY THIS PROMPT

Compare thematic analysis and content analysis using only the selected sources. Organize the comparison around purpose, assumptions, unit of analysis, coding process, role of researcher interpretation, typical outputs, and suitable research questions. Preserve disagreements among the authors and cite every definition or distinction.

CHECK BEFORE YOU USE IT. Source grounding reduces the chance of an invented definition, but it does not remove it. Methodology terms also vary across traditions, so keep the authors' wording and context visible in your final notes.

10. Turn Your Research into Teaching Material

Your own publications may contain ideas you want students to encounter, yet a journal article or dissertation chapter is rarely ready to use in class as it stands. Gemini Notebook can help you reshape that work into a more accessible starting point.

WHY YOU MIGHT USE IT

Upload your paper or dissertation chapter and ask for a student-friendly summary, discussion questions, or a study guide. Because the material begins with your own work, you can quickly check whether the explanation still carries the meaning you intended.

HOW TO DO IT

- 1 Upload the paper or chapter you want students to work with.
- 2 Describe the learners, course level, and what you want them to understand by the end.
- 3 Request one teaching resource at a time: a summary, discussion questions, concept guide, or study guide.
- 4 Review the language, correct any distortion, and add the examples or disciplinary context your students will need.

TRY THIS PROMPT

Using this paper, create a student-friendly study guide for [insert course and level]. Include a plain-language overview, five central concepts with explanations, six discussion questions that require interpretation, and three passages students should examine closely. Keep the guide grounded in the paper and cite each section.

CHECK BEFORE YOU USE IT. A simplified explanation can quietly flatten an important distinction in your work. Read the resource as the author and as the teacher: check accuracy first, then decide whether it will help these particular students learn.

About Me

Med Kharbach, PhD

My work connects literacy, pedagogy, and critical approaches to AI in education.

I'm Mohamed Kharbach, I go by Med, a Moroccan-Canadian educator, researcher, and author based in Halifax, Nova Scotia. I teach at Mount Saint Vincent University and founded Educators Technology in 2010.

Across my teaching, scholarship, and writing, I examine how people make meaning with language and technology, and how educators can approach AI with informed professional judgment.

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Newsletter

ONE EMAIL A WEEK · BY MED KHARBACH, PHD

AI in Education Research Digest

Current research. Clear explanations. Practical insights.

Each week, I review recent papers on AI in education, spanning assessment, pedagogy, teaching and learning, and AI in academic research. I bring the findings together into a clear, evidence-based synthesis for teachers, educators, and researchers.

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