

Literature Review Planning Workbook

Understand the task. Study a real example. Build your own critical synthesis.

YOUR THREE-STEP METHOD

01 UNDERSTAND / 02 SEE IT APPLIED / 03 TRY IT YOURSELF

A guided example using three published studies of retrieval practice, plus reusable planning sheets for your own literature review.

START HERE

How to use this workbook

A literature review is a reasoned synthesis—not a list of article summaries.

The learning cycle

01 / UNDERSTAND	02 / WORKED EXAMPLE	03 / YOUR TURN
A short explanation of the research decision.	How that decision looks using published scholarship.	Prompts and working space for your project.

Our example question

ILLUSTRATIVE TEACHING QUESTION

How might retrieval practice contribute to later retention and understanding, compared with other study activities?

Three sources selected for teaching

Source	Type	What it contributes
Roediger & Karpicke (2006)	Experimental	Immediate versus delayed retention after testing or restudy.
Karpicke & Blunt (2011)	Experimental	Retrieval practice compared with concept mapping.
Dunlosky et al. (2013)	Review	Broader assessment of learning techniques.

SCOPE WARNING

These three papers were deliberately chosen to illustrate synthesis. They are **not** an exhaustive search or a basis for declaring that no later evidence exists.

01 / DEFINE

Begin with a review question

Decide what your literature review needs to establish before collecting PDFs.

Understand

A review question guides your search terms, relevance decisions, evidence extraction and synthesis. State both the topic and the specific relationship, debate or uncertainty you want to understand.

SEE IT APPLIED

Broad topic: **effective study techniques.**

More focused review question: **How do retrieval-based activities compare with restudy and concept mapping on later learning outcomes?**

Your turn

My broad topic

The specific question my review should address

Key population, setting, outcomes and comparison (if relevant)

Plan a traceable search

Write down where, when and how you searched before you assess the evidence.

Understand

Combine synonyms using OR; link different concepts using AND. Adapt spelling, field tags and truncation to each database. Record actual search dates and result counts.

SEE IT APPLIED

("retrieval practice" OR "practice testing" OR "test-enhanced learning") AND (retention OR learning OR comprehension).

Possible sources: PsycINFO, ERIC, Scopus, Web of Science, and reference lists. Coverage varies.

Your turn — search planning

Main concepts and alternative expressions

Database / platform and exact search string

Search date, limits, records returned, exported file

Make eligibility defensible

A source must be relevant to the question—not merely contain matching words.

Understand

Set criteria for population, evidence type, outcome, period and publication form. Distinguish reasons to exclude a study from limitations that should instead be discussed.

Decision area	Illustrative decision	Why it matters
Outcome	Include studies examining learning or retention.	Keeps the review anchored to the question.
Intervention	Record what counts as retrieval practice.	Avoids mixing unlike techniques.
Context	Record school, university, lab or classroom setting.	Clarifies transferability.
Design	Include empirical studies and clearly label reviews.	Prevents conflating primary results and summaries.

Your turn

My inclusion criteria (and reasons)

My exclusion criteria (and reasons)

How I will record duplicates and screening decisions

04 / EXTRACT

Read a paper as evidence

Extraction is more useful when findings, methods, and your interpretation have separate fields.

Understand

Do not copy only an author's conclusion. Note the research question, study design, learners, task, comparison, outcome and important limitations. Preserve exact page references for later checking.

See it applied — three source notes

Publication	Design / focus	What to record
Roediger & Karpicke (2006)	Experiments comparing testing and additional study of prose materials.	Retention varied by test delay; delayed tests favoured retrieval in the reported experiments.
Karpicke & Blunt (2011)	Experiments comparing retrieval and elaborative concept mapping.	Reported advantage for retrieval on final assessment of learning and inference.
Dunlosky et al. (2013)	Review of ten study techniques across evidence.	Rated practice testing and distributed practice highly; review evidence rather than new experiment.

IMPORTANT DISTINCTION

A review paper summarises research; it is not a third independent experiment of the same kind. Avoid counting it as if it were primary data supporting exactly the same comparison.

See the studies side by side

Compare like with like and show where comparison is limited.

Worked evidence matrix

Source	Core comparison	Evidence to extract	Limit / note
2006 study	Repeated testing versus study	Retention at different delays	Results are tied to the tested materials and timing.
2011 study	Retrieval versus concept mapping	Later learning and inference	Comparison differs from the 2006 experiments.
2013 review	Several study methods	Utility ratings across bodies of evidence	Broad synthesis, not a direct replication.

Model synthesis insight

WHAT A MATRIX REVEALS

These papers speak to an overlapping theme: retrieval may help subsequent learning. But the studies use different comparators and outcomes. The reviewer must explain those differences before drawing a shared conclusion.

Questions to ask when filling yours

Are key concepts defined consistently? Are outcome measures comparable? Is the evidence experimental, observational or synthesised? Which conditions could explain disagreement?

Move beyond one-study-at-a-time writing

A synthesis paragraph organises ideas around a claim and uses multiple sources as evidence.

Weak approach — serial summary

AVOID THIS PATTERN

"Roediger and Karpicke studied testing. Karpicke and Blunt studied concept maps. Dunlosky and colleagues discussed study techniques." This lists publications without explaining relationships.

Stronger approach — comparative synthesis

WORKED PARAGRAPH

Experimental work suggests that active retrieval can support later learning, but the comparison and measured outcomes matter. Roediger and Karpicke (2006) reported stronger delayed retention after testing than additional study in their experiments, whereas Karpicke and Blunt (2011) reported an advantage over concept mapping on assessed learning outcomes. Dunlosky et al. (2013) considered practice testing within a wider evaluation of learning techniques. Together, these sources support discussing retrieval as a promising approach while keeping differences in task, comparator and context visible.

Your turn

My theme or argument (not an author name)

Which sources agree, differ, or examine different conditions?

Identify tensions and limits

Good synthesis explains where evidence converges and where interpretation requires caution.

Synthesis question	Example from selected papers
Where do results point in a similar direction?	Both experimental articles report benefits of retrieval under their reported conditions.
Where do the studies differ?	The alternative activity and assessed outcomes are not the same.
What would limit generalisation?	Instructional setting, materials, delay, learner characteristics and feedback.
What can a wider review add?	A broader comparison of techniques and their documented effectiveness.

Your turn — a synthesis map

Theme 1: shared findings and studies

Theme 2: disagreements / competing explanations

Theme 3: methodological and contextual limits

The qualified conclusion I can responsibly make

Evaluate a possible gap

An uncertainty becomes a defensible gap only after a sufficiently careful search.

Understand

Do not write "no research exists" based on three selected papers. Specify the kind of unresolved question, why it matters, how you would verify it, and whether your study could address it.

WORKED EXAMPLE — PROVISIONAL ONLY

Possible question to investigate further: Under what classroom conditions do retrieval-based activities help students apply concepts over longer periods? This is **not** presented as an established gap. A current, systematic search would be needed to evaluate what has already been tested.

Your turn — test your gap claim

What is reasonably established?

What remains uncertain? Which sources indicate that?

Why does it matter, and what evidence would address it?

What further searches could disconfirm my proposed gap?

Build the argument of your review

Headings should represent themes and reasoning, not a procession of author names.

Model outline for our teaching example

Section	Question it should answer
1. Define retrieval practice	What activities are being compared, and how is learning assessed?
2. Evidence for delayed retention	What do relevant experimental studies report?
3. Comparison with alternatives	How do study methods, comparators and outcomes vary?
4. Interpret the wider evidence	What do critical reviews add and what remains conditional?
5. Synthesis and research direction	What conclusion is warranted, and which questions require further search?

Your turn — outline

Opening: concepts and why the review matters

Theme sections: 2–4 arguments, evidence for each

Closing: synthesis, uncertainty and next research step

WORKSHEET A

Your search and selection log

Record actual searches; this table is deliberately blank.

Date / source	Exact query and filters	Hits / screened	Include / exclude rationale

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PRACTICE NOTE

For a systematic review, use a predefined protocol and appropriate reporting guidance. This worksheet supports focused and narrative review planning; it does not by itself satisfy systematic-review requirements.

Use one row per source and extend the table as your review grows.

Full citation / link	Method, context, sample	Main finding	Limit and relevance

Separate what the authors actually found from your explanation of why it matters. Record page numbers, measures and uncertainties when available.

WORKSHEET C

Your synthesis builder

Fill in the prompts before drafting the final review.

My overall theme / argument

Studies that support or complicate it

Differences in populations, methods or outcomes

My evidence-based synthesis paragraph (draft)



FINAL CHECK

Review quality + verified references

Before submitting, verify each claim against the underlying source.

Quality checklist

- ☐ My review question is precise and relevant to the study.
- ☐ I recorded where, when and how sources were located.
- ☐ I applied defensible selection criteria consistently.
- ☐ I distinguish empirical studies from reviews and commentary.
- ☐ My evidence matrix records methods, results and limitations.
- ☐ My paragraphs compare studies rather than list them.
- ☐ Any proposed research gap is qualified and checked against current literature.
- ☐ My references, in-text claims and DOI links have been verified.

References used in the worked example

Roediger, H. L., & Karpicke, J. D. (2006). Test-enhanced learning: Taking memory tests improves long-term retention. *Psychological Science*, 17(3), 249–255.
<https://doi.org/10.1111/j.1467-9280.2006.01693.x>

Karpicke, J. D., & Blunt, J. R. (2011). Retrieval practice produces more learning than elaborative studying with concept mapping. *Science*, 331(6018), 772–775.
<https://doi.org/10.1126/science.1199327>

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques. *Psychological Science in the Public Interest*, 14(1), 4–58.
<https://doi.org/10.1177/1529100612453266>

Attribution note: The comparisons and model synthesis are educational interpretations of these papers, not quotations or a systematic review.