research nest

LESSON 3 · RESEARCH NEST COURSE

Literature Reviews and Research Gaps

> *If you read ten studies on your topic, how would you know what nobody has looked at yet?*

From a pile of sources to a map of the conversation

From “what each study says” to “what the studies say together”

LEARNING OBJECTIVES

What you will be able to do today

- Explain the difference between summarising and synthesising sources
- Build a literature matrix that compares sources on the same criteria
- Spot patterns: agreement, disagreement and what is missing
- Use limitations of past studies to locate a gap
- Write a modest, defensible gap statement

CONCEPT 1

Summary reports; synthesis connects

A literature review is a conversation between sources, organised around your question — not a list of book reports.

Summary

Restates what one source found. Organised source by source: “Study A found… Study B found…”.

Synthesis

Groups sources by idea, shows where they agree or differ, and says what that means for your question.

History example

Not “Historian X says… Y says…” but “Earlier accounts stressed leaders; later ones focus on ordinary people.”

Biology example

Not a list of results, but “Lab studies agree on X, yet field studies are few and use small samples.”

Adapted from: Purdue OWL, Synthesizing Sources; UNC Writing Center, Literature Reviews

CONCEPT 2

The literature matrix: sources in rows, ideas in columns

A matrix forces you to ask the same questions of every source, so patterns become visible.

1. **One row per source**
   Author, year, short title — plus where you found it
2. **Same columns for all**
   Who and where, method, key finding, limitations
3. **Read down each column**
   Which methods dominate? Which groups or settings appear?
4. **Name the pattern**
   Agreement, disagreement, or something missing
5. **Link to your question**
   What does this pattern mean for your project?

Adapted from: Johns Hopkins Sheridan Libraries, Write a Literature Review: Synthesize

CONCEPT 3

Defensible gaps versus overclaimed gaps

A defensible gap is modest, specific and backed by your matrix.

Generic illustrations, not quotes from real papers

Field	Overclaimed	Defensible
Psychology	“No one has studied noise and learning.”	“Few studies we found test teens in real study spaces.”
History	“Historians have ignored this town.”	“Accounts we read use official records, not letters.”
Biology	“Nothing is known about this plant.”	“Most studies we found are lab-based; field data are scarce.”
Economics	“This has never been measured.”	“Studies we found use national, not local, data.”

Adapted from: USC Libraries, The Literature Review; Manchester Academic Phrasebank, Introducing Work

WORKED EXAMPLE · STEP 1 INVENTED EXAMPLE

Noor builds a literature matrix

Illustrative sources — not real papers. Noor's real matrix would use verified studies.

Source	Who / where	Method	Key finding
Study A (illustrative)	Adults, university lab	Experiment	Speech noise lowers recall
Study B (illustrative)	Adults, university lab	Experiment	Steady noise affects less
Study C (illustrative)	Primary pupils, classrooms	Sound readings + tests	Louder rooms, lower scores
Study D (illustrative)	Teenagers, online survey	Self-report	Many study with music

WORKED EXAMPLE · STEP 2 INVENTED EXAMPLE

From summary to synthesis

BEFORE: SUMMARY

Study A found speech noise lowers recall. Study B found steady noise matters less. Study C found louder classrooms had lower scores. Study D found many teens study with music.

AFTER: SYNTHESIS

Across the studies reviewed, speech-like noise seems more disruptive than steady noise (A, B). However, most evidence comes from adults in labs or younger pupils (A–C); teenagers appear mainly in self-report surveys (D).

Adapted from: Purdue OWL, Synthesizing Sources

WORKED EXAMPLE · STEP 3 INVENTED EXAMPLE

Noor writes a modest gap statement

NOOR'S DRAFT GAP STATEMENT

In the studies reviewed, most evidence on background noise comes from laboratory tasks with adults or from younger pupils.[1] Fewer studies examine teenagers in the study spaces they choose for themselves.[2] This project explores how noise and concentration relate in one school's study spaces, from students' own perspective.[3]

Pattern from the matrix, limited to what she read

Specific gap: group + real setting

Modest scope that matches feasibility

FRAMEWORK

Is my gap defensible? A decision guide

Run every draft gap through these checks before you build a question on it.

Can you point to a pattern in your matrix that shows what is missing or under-studied?

No — I just could not find my exact topic	→ Search again with new terms and databases; ask a librarian or supervisor
Yes, but my wording says “no one” or “never”	→ Limit it: “in the studies reviewed”, “few”, “mainly”
Yes, but it would not change anything	→ Explain why a new group, setting or method might matter — or rethink
Yes, specific, modest and it matters	→ Defensible gap — use it to refine your research question (Lesson 4)

Adapted from: USC Libraries, The Literature Review; UNC Writing Center, Literature Reviews

COMMON MISTAKES

Common mistakes and how to fix them

Book-report review

Fix: organise by theme or method, not one paragraph per source.

“No one has ever…”

Fix: limit the claim to the studies you reviewed and say what is missing.

Ignoring disagreement

Fix: report conflicting findings and suggest why they differ (sample, method).

Matrix with no limitations

Fix: add a limitations column; authors’ own limitations often reveal gaps.

Adapted from: UNC Writing Center, Literature Reviews; USC Libraries, Limitations of the Study

GUIDED PRACTICE

Guided practice: build your mini-matrix

20 minutes in pairs, using the sources you gathered in Lesson 2.

1. **Set columns (3 min)**
   Who/where, method, key finding, limitations, link to my question
2. **Fill rows (8 min)**
   At least four sources; short phrases in your own words
3. **Read down (4 min)**
   Circle one pattern of agreement and one of absence
4. **Draft gap (3 min)**
   Two sentences: pattern, then modest gap
5. **Partner check (2 min)**
   Run it through the decision guide

DISCUSSION INVENTED EXAMPLE

Model response: a short synthesis with a gap

MODEL PARAGRAPH (HISTORY STUDENT, ILLUSTRATIVE SOURCES)

Earlier accounts of the town's 1920s factory strike (Source 1, Source 2) explain it mainly through union leaders' decisions.[1] More recent work (Source 3) draws on newspapers and finds wider community support, though it uses few personal documents.[2] Workers' letters held in the local archive therefore appear under-used in the accounts reviewed.[3]

Groups sources by interpretation

Shows change over time + a limitation

Hedged, specific evidence gap

TEMPLATE

Reusable literature matrix template

Copy into a spreadsheet; add one row per source and keep it updated as you read.

Rename columns to suit your discipline

Column	What to record	Ask yourself
Source	Author, year, title, link or DOI	Verified and actually read?
Context	Who, where, when (or period, text)	Like my group or setting?
Method / evidence	Design, sample, types of evidence	How strong is this evidence?
Findings	Main result or argument, in my words	Does it agree with other rows?
Limitations & link	What authors admit; why it matters to me	Does this point to a gap?

Adapted from: Johns Hopkins Sheridan Libraries, Synthesize; USC Libraries, The Literature Review

KNOWLEDGE CHECK

Knowledge check and next step

Next step: expand your matrix to five or more verified sources and finalise a two-sentence gap statement.

Which sentence is synthesis rather than summary?

A A: “Study A surveyed 200 adults.” **B** B: “Most studies used adults; few involved teenagers.”

C C: “Study C was published in 2020.”

In a literature matrix, where do gaps usually become visible?

A Reading across one row **B** Reading down a column **C** In the reference list

Rewrite this gap so it is defensible: “No one has ever studied homework stress.”

Name two places a gap can come from besides “I couldn’t find anything”.

SOURCES & FURTHER READING

Sources and further reading

The Writing Center, University of North Carolina at Chapel Hill. (n.d.). Literature reviews. writingcenter.unc.edu/tips-and-tools/literature-reviews

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