research nest

LESSON 2 · RESEARCH NEST COURSE

Finding and Reading Reliable Research

> *If you typed your research question into a search engine right now, how would you decide which of the first ten results to trust?*

Search like a researcher, not a shopper

Check sources before you believe them

Read papers in passes, and keep a log

BY THE END OF THIS LESSON

What you will be able to do

Output: a starter source log with your search terms and five checked sources, each with a reliability note and one-line summary.

- Build a search with keywords, synonyms and AND / OR / quotation marks
- Choose a database that fits your discipline
- Check a source using lateral reading and the SIFT moves
- Read a paper in passes and find its question, method, finding and limits
- Record sources in a log or reference manager as you go

CONCEPT 1 · SEARCHING

Search with keywords, not sentences

Break your question into key concepts, list synonyms for each, then combine them.

AND narrows · OR adds synonyms · "quotes" keep a phrase together

An asterisk often finds endings: adolescen* → adolescent, adolescence

Free places to start (your library may offer more)

Tool	Best for	Tip
Google Scholar	Any discipline; quick overview	Try "Cited by" and "Related articles"
PubMed	Health, biology, psychology	Filter by article type
ERIC	Education research	Filter to peer reviewed
Library catalogue	Books, history, literature	Ask a librarian

Based on: Google Scholar Search Help; PubMed Help; ERIC

CONCEPT 2 · EVALUATING

Check a source before you trust it

Professional checkers read laterally: they leave the page to see what others say about the source and the claim.

History: a 1940s diary is primary; a modern book analysing it is secondary. Each is reliable for different jobs.

1. **Stop**
   Notice your reaction. Do you know this source? What do you need it for?
2. **Investigate the source**
   Open a new tab. Who is behind it, and what is their expertise or agenda?
3. **Find better coverage**
   Look for trusted reporting or research on the same claim.
4. **Trace to the original**
   Follow quotes and statistics back to the study or document they came from.

SIFT moves from Caulfield (2019); lateral reading from Digital Inquiry Group, COR

CONCEPT 3 · READING

Read papers in passes, not front to back

Skim to decide whether it matters, then read the parts that answer your questions.

Ask of every paper: question? method? main finding? limits? relevance to me?

SCIENCE ARTICLE (IMRAD)

Abstract → Introduction (why) → Methods (how) → Results (what was found) → Discussion (what it means, limits). Pass 1: title, abstract, figures, conclusion. Pass 2: methods and results.

HUMANITIES ARTICLE

Usually no fixed headings. The argument runs through the text. Find the thesis in the introduction, the evidence used (texts, archives), the scholars it argues with, and the conclusion.

Adapted from: Rodriguez (2021), Elsevier Connect, How to read a scientific paper

WORKED EXAMPLE · STEP 1 INVENTED EXAMPLE

Noor searches, then searches again

Each round teaches Noor a better word for what she is looking for.

Round	Search	What Noor noticed
1 · web	why do I get distracted studying with noise	Study-tip blogs and adverts; no research
2 · Scholar	"background noise" AND concentration	Lab studies with adults; a review names the "irrelevant speech effect"
3 · Scholar	("irrelevant speech" OR "background noise") AND adolescen*	Fewer, more relevant results; sees the term "classroom acoustics"
4 · ERIC	"classroom acoustics" AND "secondary school"	Education studies on school settings

WORKED EXAMPLE · STEP 2 INVENTED EXAMPLE

Noor checks what she found

Placeholders only: Study A, Review B, Blog C and News D are illustrative, not real publications.

Source (illustrative)	Quick checks	Decision
Study A: lab experiment, adults	Peer reviewed; clear method; sample unlike Noor's	Keep; note the sample difference
Review B: summary of many studies	Recent journal review; long reference list	Keep; mine its references
Blog C: "music boosts focus by 50%"	Lateral reading: site sells headphones; no study linked	Reject; log the reason
News D: report on a school study	Reputable outlet, but second-hand	Trace to the original study

WORKED EXAMPLE · STEP 3 INVENTED EXAMPLE

Noor reads and records as she goes

Pass 1 · five minutes

Title, abstract, figures, conclusion of Review B. Relevant? Yes: it covers speech versus steady noise.

Pass 2 · twenty minutes

Reads methods and results tables. Notes most studies used adults or younger pupils.

Log entry

Saves it in Zotero, collection "Noise project", tags: review, speech, adults. Writes a one-line summary.

Back to searching

Adds "open-plan" and "self-report" to her term list after seeing them in the review.

ANNOTATED ABSTRACT INVENTED EXAMPLE

What each sentence of an abstract tells you

INVENTED EXCERPT FOR PRACTICE — NOT A REAL PAPER OR REAL RESULTS

Background speech is common in study spaces, yet most evidence comes from lab tasks with adults.[1] Sixty Year 10 students did a reading task in silence and with recorded chatter, in random order.[2] Comprehension scores were lower with chatter than in silence.[3] Schools should therefore provide silent study zones for all students.[4]

Background and gap: why the study exists.

Method and sample: who, how many, what design?

Finding: check the size of the difference, not just its direction.

Claim: does it go beyond the evidence? Check the limits.

AVOID THESE

Common mistakes and how to fix them

Mistake	Fix
Keeping your first search terms forever	Harvest new terms from titles, abstracts and keywords; search again
Trusting a page because it looks professional	Read laterally: who is behind it, and what do others say?
Citing a news story or blog about a study	Trace the claim to the original study and read that
Reading only the abstract	Check methods, sample and limitations before relying on a finding
Saving sources "for later" with no details	Log author, year, title, source and link the moment you read

GUIDED PRACTICE · 20 MINUTES

Search, check and log one source

In pairs, use your own topic or a topic card. Laptops or phones; no data collection.

1
Concepts · 3 min
Split your question into 2–3 concepts; list 2 synonyms for each.

→

2
Search · 5 min
Combine with AND / OR in a suitable database. Change one term and search again.

→

3
Check · 5 min
Pick one result. Read laterally: who wrote it, where, is it peer reviewed?

→

4
Read · 5 min
Pass 1 only: label question, method, finding and limits in the abstract.

→

5
Log · 2 min
Write a full log entry with a one-line summary in your own words.

MODEL RESPONSE INVENTED EXAMPLE

What a strong log entry looks like

Sample for the topic card on screens and sleep. Article X is an illustrative placeholder, not a real paper.

Step	Model answer
Revised search	("screen time" OR "bedtime media use") AND sleep AND adolescen*
Why the change	Term found in an abstract; adolescen* focuses on teens
Check	Article X: peer-reviewed journal, university authors
Read (pass 1)	Survey of teens in one country; self-report; correlational
One-line summary	Links bedtime phone use with shorter sleep; cannot show cause

REUSABLE TEMPLATE

Source log checklist

Copy this into a spreadsheet or Zotero note for every source you keep or reject.

- [ ] Search used, database and date searched
- [ ] Full details: author(s), year, title, journal or publisher, DOI or link
- [ ] Type: peer-reviewed study, review, book, primary document, news, other
- [ ] Lateral check: who is behind it, and what independent sources say
- [ ] Question, method and sample (or thesis and evidence, in humanities)
- [ ] Main finding and one limitation, in your own words
- [ ] Keep or reject, and how it relates to your question

KNOWLEDGE CHECK

Check your understanding

Next step: finish your source log: search terms plus five checked sources

Read two sources to pass 2; add new terms you find

Bring it to Lesson 3

Which operator finds papers using either "teenagers" or "adolescents"?

A AND **B** OR **C** NOT **D** Quotation marks

A slick site quotes a striking statistic with no link. Best first move?

A Trust its design **B** Read laterally; trace the number **C** Check for .org

In an IMRaD paper, where do you find who was studied and how?

A Introduction **B** Methods **C** Discussion **D** References

For a historian, what kind of source is a soldier's letter from 1916?

SOURCES & FURTHER READING

Sources

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