



Learning to love your literature search

Aims of the session

Planning a literature search

Effective searching & improving
search results

Top search tools

Sourcing items not held by Edinburgh
Napier



How do I plan a literature search?

Prepare & decide on:

- A search plan
- Sources to search
- Inclusion /exclusion criteria
- Time for the search
- Initial writing plan
- Talk to your subject librarian!



Where to start?

Scoping Search

Not as exhaustive as if for a literature review - gain an overview of the range/ depth of research that already exists within your field.

What do you know already?

How do you know that? What ideas have influenced your thinking on this topic so far?

Key papers, authors, guidance /best practice documents, government reports etc.

Use human sources –

talk to your supervisors and fellow researchers - advice & experience.

Evaluate your scoping search –

Summarise your findings & talk it over with your supervisor. Clarify your topic.

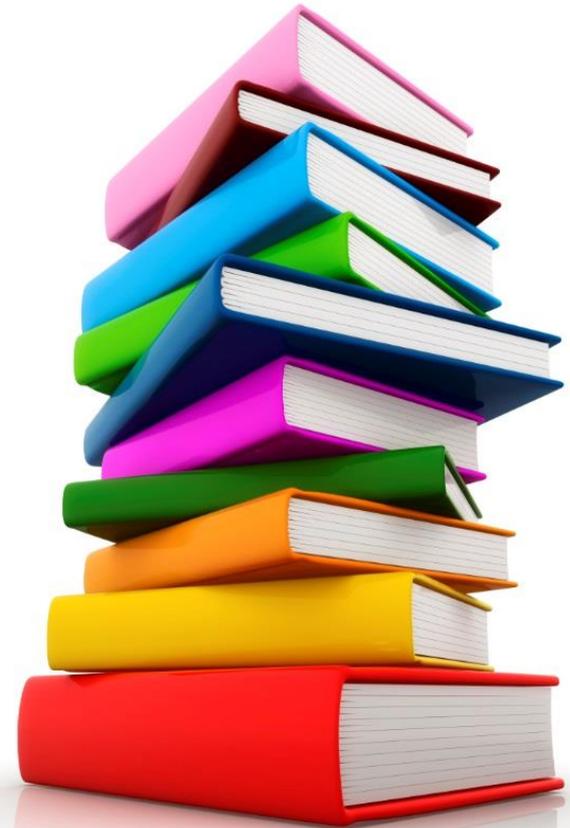
It's not just about what you know. What do you not know? Gaps in knowledge? Questions arising?

You should now have a clearer, more refined, if not yet final, research question.



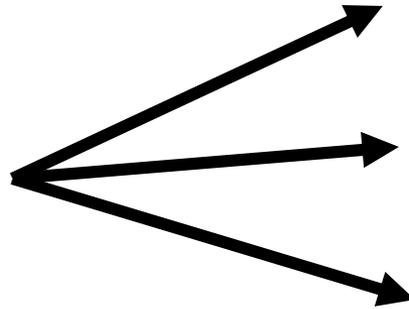
Where do I find the literature?

- Google Scholar
- Academic databases
- Library catalogues
- Theses/dissertations
- Government
- Specialist sources e.g. patents, standards
- Social Media
- Professional networks



Some Choices

Google
Scholar



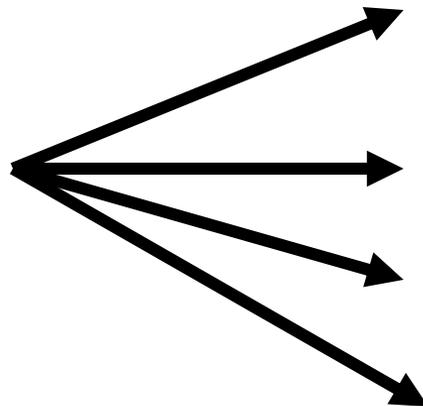
“Quick and dirty”

Keyword /key phrase identification

Recent authors in the field

Prepare systematic search plan

Academic
Databases



Systematic search

Prioritise databases – see your

LibGuide / consult subject librarian

Build & save search strategy

Review & export selected results to
reference manager

About Google Scholar

Scholarly & academic sources but NOT ALL of those sources covered!

Many journals locked behind paywalls

Accuracy – is the article a pre-published version?

Use Google Scholar better:

- Do you have a Google account? – sign in to save articles etc.

Use our Google Scholar LibGuide to set your library links

<https://libguides.napier.ac.uk/googlescholar>

- Use the advanced search
- Use the limits on the results screen.

Key Library Sources for SEBE & SOC

- IEEE – mainly engineering but some computing. Good high level research, good current awareness tools
- ACM – key source of conference proceedings for computing, search can be a bit frustrating
- Transport database – not full text, some USA/NZ/AUS material hard to find even using ILL
- Web of Science (core collection) – multidisciplinary – also Journal Citation Reports

Key Library Sources for SACI

LibrarySearch works quite well for most SACI subjects – try it first!

- Art & Architecture Complete - good for design, film, photography, be aware not all things available in full-text
- Web of Science (core collection) – all subjects, not just science, but not all full-text
- Literature Online

More in the SACI LibGuide

Moving from Scoping search to Methodical search



- What is your topic? What is your search question?
- Identify a wider range of more relevant keywords and search terms.
 - The terms you use will determine the results you will obtain; therefore, the search terms used are the most important aspect of a search strategy.
- What are the parameters? (demographics, geographical boundaries, date range, language)
- Have you identified key authors or journals?
 - Be proactive. Follow key people online. Set up electronic feeds or register for table of contents for these journals (Current Awareness).
- Use journal metrics – Journal Citation Reports / Altmetrics

Research Methods

Before you get too far in you might want to know more about about research methods

use Sage Research Methods Online (find via LibrarySearch>Databases tab).



Reference Management

- EndNote / Mendeley – worth the learning curve!

Tools can:

- Organize / store references
- “Write & cite” in the required house style
- Share & collaborate with other researchers.



MENDELEY

Search Plan

No single way to do this— do what is best for you, but remember that sometimes stakeholders in your research (supervisors, PIs, funding bodies, editorial boards) may want to see evidence of your search.

Our Literature Review LibGuide contains examples of search plans:

<https://libguides.napier.ac.uk/litrev/search>

- Living breathing, evolving document.
- There is also no such thing as one search tool that can find everything.

Example : Search plan - “Use and effectiveness of online peer feedback in UK higher education”

	Concept 1	AND →	Concept 2	AND →	Concept 3
Main concept	Peer feedback		Online learning /teaching		Higher education
	OR ↓		OR ↓		OR ↓
List search terms using truncation* and wildcards?	Peer feedback		Online Elearn* or e-learn* Educational technology Web-based or web based Internet Blended learn* Mobile learn*		Universit*
	OR ↓		OR ↓		OR ↓
List synonyms, alternate spelling, language, etc.	Peer assess* Self regulated learn* Reflective learn*				
	OR ↓		↓		OR ↓
List words derived from database subject headings / thesaurus	Formative tests (British Education Index)		Distance education Distance learning Computer assisted instruction Computer assisted testing (British Education Index)		Higher education (British Education Index)

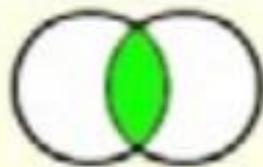


Databases & Boolean Logic

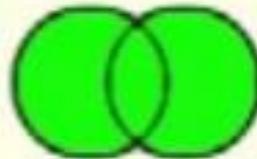
AND includes all the search terms

OR includes at least one of the search terms

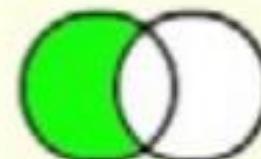
NOT excludes the search term from the result



"AND"



"OR"



"NOT"

Sample search of *British Education Index* for the topic – “Use and Effectiveness of online peer feedback in UK higher education

1	DE "FORMATIVE tests"	81
2	peer feedback or peer assess*	145
3	reflective learn*	2,737
4	S1 OR S2 or S3	3,274
5	DE "DISTANCE education" or distance learn*	2,503
6	DE "COMPUTER assisted testing (Education)" or DE "COMPUTER assisted instruction"	6,506
7	online or elearn* or e-learn*	4,663
8	DE "EDUCATIONAL technology"	2,837
9	S6 OR S7 OR S8	13,122
10	S4 AND S9	265
11	higher education or universit*	79,210
12	S10 AND S11	210

Search Results

Too many?



Too few or irrelevant?

Limiters- date, language, methodology etc.

Field Searching – which part of the record to look in

Subject Searching – database controlled, sets the context

Search Terms – just wrong?

Phrase Searching – overuse?

Spelling – mistakes ?

Abbreviations – non specific

Boolean Logic – wrong use of “and/or”

Concepts - too many combined

Limiters - overuse

Modify your search

Sometimes your search just doesn't produce results

- You may have to modify your questions or even your topic
- Evaluating and amending your search is an essential part of the iterative process

Snowballing

Found a useful paper? Exploit it to the full!

- Harvest keywords
- References - look backwards
- Citations - look forwards
- Author links
- Special issues / same topic
- Conferences



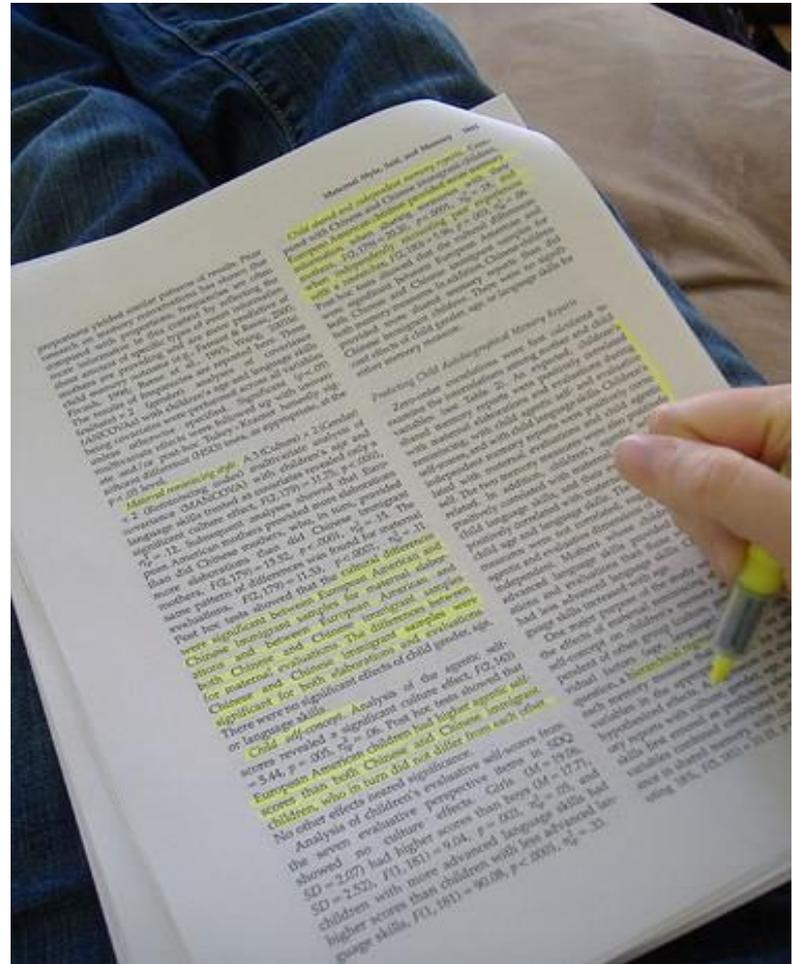
What To Read/Evaluate First....

- Any recent *review* papers ?
- Recent papers from good quality journals?
- Apply your inclusion/exclusion search criteria to choosing papers
- Check paper importance – run the title through Google Scholar – how many citations does it have ?



How to Read a Journal Article

- Scan & skim
- Consider your own view
- What do you already know about the topic and the methods used
- Evaluate as you read
- Consider tables for recording data extraction, coding, thematic analysis and synthesis

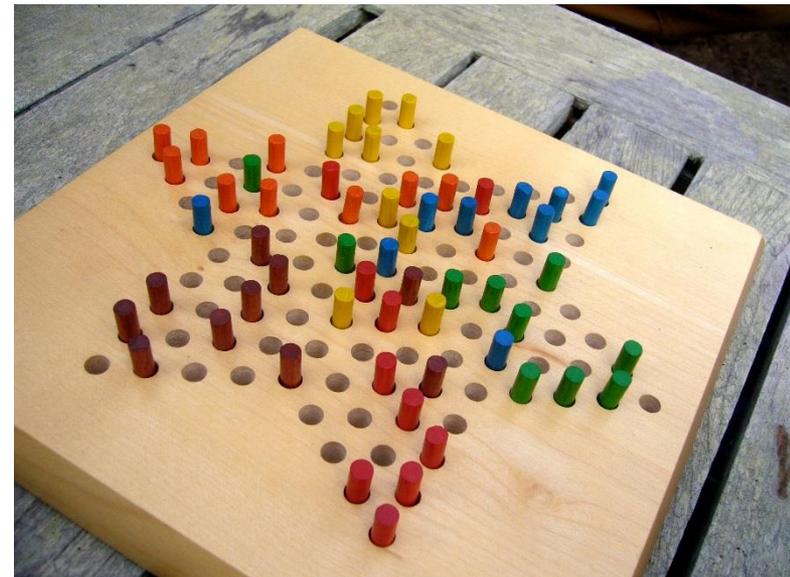




How to Evaluate a Journal Article

As you read different papers, look for:

- Themes
- Common ground
- Differences
- Controversy
- Gaps
- Dot joining
- More literature





Outside Edinburgh Napier

Use our Interlibrary loan service

National and Academic Catalogues - search UK & Irish academic, national & specialist library catalogues through Copac: <https://copac.jisc.ac.uk/>

Ethos - British theses: <http://ethos.bl.uk/>

Policies, statistics and reports are available via GOV.UK and National Archives:

<http://www.nationalarchives.gov.uk/webarchive/>

Specialist Portals

- EU research Portal
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>
- OpenGrey <http://www.opengrey.eu/> for grey literature
- Citeseerx (mainly computing, other scientific disciplines growing).
- UK Data Archive <http://www.data-archive.ac.uk/create-manage/storage>

Contact researchers directly via research portals such as ResearchGate and Academia.edu

Conclusions

- Allocate time to the task
- Start early - iterative process
- Keep track of references
- Read effectively
- Interpret, synthesise & identify gaps in the literature
- Keep up to date
- Know when to stop!





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<https://libguides.napier.ac.uk/litrev>

..... and lots of others!

Contact your Subject Librarians

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