iSkills for Undergraduate Science: Successful searching for your assignment

Karine Barker and Alessandra Vetrugno
Welcome!

Where to find good quality research information for your assignments

Searching academic databases

Planning a search and practise standards search techniques

Troubleshoot your searches

Understanding differences between a literature review and a systematic review
Please use the Padlet to note down any questions, comments or feedback you have during the session.

https://padlet.com/karinebarker/7lmgpoc60n0uw0nt
Why search for good quality research papers?

Supports your arguments with evidence and examples.

Demonstrates the quality of resources you have used and your own knowledge of the subject.
Journal articles can be used to find some of the latest and most authoritative research on a topic. You will be making extensive use of academic journal articles throughout your course. This means you need to know where to find them!
Finding resources: SOLO & Browzine
Live Demo: Browzine & Hands-on activities
Is there something we don’t have in Oxford?

• If you can’t access the electronic version:
  • Do we have the print version?
  • Open access version?
• Interlibrary loan

More information is available on the Bodleian Interlibrary loan webpage
Bibliographic databases

- Books (often chapter level indexing)
- Journals
- Conferences
- Patents
- Grey Literature
Content on databases

• Peer-reviewed
• Selected before being added to the database
• Indexed by subject specialists
• Keywords assigned to each paper
• Subject-specific or inter-disciplinary
Databases features

1. Search for any topic, author or publication
2. Employ a wide range of advanced search tools
3. Offer plenty of options to filter, sort, analyse and save results
Databases A-Z
Databases A-Z
Several search options
Different access to Medline Database

MEDLINE (Web of Science)

MEDLINE (Ovid)

MEDLINE is the United States National Library of Medicine's (NLM) premier bibliographic database providing information from the following fields: Medicine; Nursing; Dentistry; Veterinary medicine; Allied health; Pre-clinical sciences.

The MEDLINE database is the electronic counterpart of Index Medicus, Index to Dental Literature, and the International Nursing Index.

The Ovid MEDLINE database contains bibliographic citations and author abstracts from more than 4,600 biomedical journals published in the United States and in 70 other countries. The database contains well over 13 million citations dating back to 1950, including more than 130,000 population-related journal citations (unique to the former POPLINE database) that were added to MEDLINE in October of 2002. Although coverage is worldwide, most records are derived from English-language sources or have English abstracts. Abstracts are included for more than 75% of the records.

PubMed

Ovid SP

Medline on Ovid Search Platform
Ovid Search Modes

Basic Search
• works like internet search engines
• doesn’t require search techniques
• Useful as a starting search to scope out literature, keywords, subject headings

Search Fields
• List all searchable indexed fields in a database
• Useful for restricting a keyword search to title and abstract

Advanced Search
• Default search
• Search MeSH
• Search concepts at one time and combine

Require search techniques
Planning a search

Research topic:

**Does garlic extract reduce high blood pressure in patients?**
### Breaking down a research topic in concepts

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Drug/substance</th>
<th>Condition</th>
<th>Treatment/effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garlic</td>
<td>Garlic</td>
<td>High blood pressure</td>
<td>Reducing blood pressure</td>
</tr>
<tr>
<td>Garlic extract</td>
<td>Garlic extract</td>
<td>High blood pressure</td>
<td>Lowering blood pressure</td>
</tr>
</tbody>
</table>
## Activity - Add alternative terms in the chat

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Phrase searching

**Medline on Ovid platform**

"quotation marks" for phrases
"influenza immunisation" for terms appearing next to each other
ADJn for words near to one another within a specified number (n) in any order
Surgery adj5 delay

**Scopus**

"..." for terms appearing together
{...} for exact phrase in Scopus (no stop words or hyphen)
W/n surgery W/5 delay in any order
Pre/n surgery Pre/5 delay – surgery precedes delay
Truncation and wildcards

**Medline on Ovid Platform**

**Truncation:** asterisk *

Unlimited accura* for accuracy, accurate

Limited car*3 for carer, carers, caring but not cardio-vascular

**Wildcards:** question mark ? or #

Characteri?qation for different spelling

**Scopus**

Unlimited car*
Boolean commands

- **AND** – includes

- **OR** – broadens out

- **NOT** – excludes
Boolean operators and parentheses for nesting

- **OR**: synonyms and keywords for the same concept:
  - exercise **OR** “physical activity”

- **AND**: different concepts:
  - (“fitness tracker” **OR** “wearable device”)
    **AND**
  - (exercise **OR** “physical activity”)


Medical Subject Headings (MeSH) Headings

- **Controlled vocabulary** produced by the US National Library of Medicine
- Includes **main concepts** (main headings), related terms, and **aspects of a concept** (adverse effects, diagnosis, metabolism, therapy) arranged in a hierarchy
- Used by NLM cataloguers to describe the subject content of journal articles indexed in Medline
Why search MeSH?

• Retrieve records on a subject

• Include records with a different terminology for the same subject

• Optimise the retrieval of relevant results in combination with a keyword search
Activity with padlet – Add truncations, wildcards, connectors

Use this padlet: https://padlet.com/karinebarker/lv9f82csgmctphtc
Citation Counts

• Some databases count citations to papers.
• You can use these citations to find papers which have cited a piece of research you are interested in.
• Citations can also give you clues as to what might be widely read or particularly important papers in a field.
Live Demo: Searching databases

• Searching MeSH
• Applying search strategies
• Filtering results
• Looking at citing and cited articles, suggested articles, author's and indexed keywords
• Saving results and searches
Troubleshoot your searches

Use the padlet to enter your suggestions

https://padlet.com/karinebarker/uhzr9xl1xnwnxqtr
Troubleshoot your searches

Too many results
Troubleshoot your searches (1)

Too many irrelevant results
Troubleshoot your searches (2)

No results
Systematic Reviews

What are systematic reviews?
Open the padlet

https://padlet.com/karinebarker/67we2hfgf0q5lybb
| Systematic review | Review (literature, narrative) |
Systematic review definition

A systematic review attempts to **identify, appraise and synthesize** **all the empirical evidence** that meets pre-specified eligibility criteria to answer a specific research question. Researchers conducting systematic reviews use **explicit, systematic methods** that are selected with a view aimed at **minimizing bias**, to produce more reliable findings to inform decision making.

https://www.cochranelibrary.com/about/about-cochrane-reviews
Questions?

Let's check the Padlet
Thank you!

For any questions, please email your Subject Librarian: Karine.barker@bodleian.ox.ac.uk