PART 2: SEARCHING AND SYSTEMATIC REVIEWS

Translating Database Searches and Finding Grey Literature
Learning Objectives

By the end of this class you will:

- Know how to **translate** a search between databases
- Know how to **test** your search
- Know what **grey literature** is
- Know how to **find** grey literature
- Know how to **create a search plan** for grey literature
- Know what **tools** you have available to help you design and document your search
Precision and Sensitivity

Sensitive search: captures a lot but includes more irrelevant results

Precise search: captures many relevant results but you may miss some

What are Subject Headings?

- Controlled vocabulary indexing the article’s content.
- Organized in a hierarchical structure.
Why Search Subject Headings?

- Searching subject headings added by a subject expert from a controlled vocabulary to control for synonyms, different forms of expression, spelling variations, etc.
- Efficiently and quickly connects you to the research about your topic
- Necessary for a comprehensive search
What are Keywords?

- Search terms that you create to search the author’s words.
- Will return matches for that exact word from the title, subject headings, abstract, and some other fields.
Why use Keywords?

● It takes a few months for articles to be indexed with a subject heading.
● Sometimes an appropriate subject heading is not available.
● Keywords aid in finding the older literature in topics with newer MeSH terms.
● Completeness of your search.
Combining Subject Headings, Keywords, and Concepts

Problem
UTIs

Intervention
Cranberry Juice

Outcome
Reduce/Eliminate recurrence

Keyword OR Subject Heading

Keyword OR Subject Heading

Keyword OR Subject Heading
TESTING A SEARCH
Why test your search?

- Ensure the you are including the search terms necessary to find the papers you want.
- Opportunity to make sure that your search is functioning properly.
Testing Your Search

● Identify approximately 10 “gold standard” papers.
● Search for each paper using the title.
● OR the papers together in a set.
● AND the set of papers with your search and run search.
SEARCH TRANSLATION
Translating Your Search Into a Different Database

1. Select next database.
2. Search for new subject headings for Concept 1 using the keywords from Concept 1 in your first search.
3. Select all appropriate subject headings.
4. Combine new subject headings for Concept 1 with the keywords used in the first search using OR.
5. Repeat for Concept 2 and 3.
6. Combine concepts using AND.
Finding and Translating Filters

You can find pre-made filters on a variety of topics! They have typically been made by professional searchers.

Here are some places to find filters:

- RCT filters from Cochrane for various databases
- University of Alberta Library search filters
- ISSG filters
- CADTH’s String Attached search filters
Setting Up Updates and Alerts

Most databases will allow you to set up search alerts if you have created an account in the database.
OTHER SOURCES AND GREY LITERATURE
PRISMA 2009 Flow Diagram

Identification
- Records identified through database searching (n = )
- Additional records identified through other sources (n = )

Records after duplicates removed (n = )

Screening
- Records screened (n = )
- Records excluded (n = )

Eligibility
- Full-text articles assessed for eligibility (n = )
- Full-text articles excluded, with reasons (n = )

Included
- Studies included in qualitative synthesis (n = )
- Studies included in quantitative synthesis (meta-analysis) (n = )
# Cochrane Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
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<tr>
<td>C28: Searching for grey literature (Highly desirable)</td>
<td>Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible.</td>
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<tr>
<td>C29: Searching within other reviews (Highly desirable)</td>
<td>Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible.</td>
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<tr>
<td>C30: Searching reference lists (Mandatory)</td>
<td>Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible.</td>
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What is grey literature?

Grey Literature is "literature produced on all levels of government, academics, business, and organization in electronic and print formats not controlled by commercial publishing i.e. where publishing is not the primary activity of the producing body" Greynet.

It also includes academic works that are not published which can include studies relevant to your topic.
Sources for Grey Literature

- CADTH’s “Grey Matters” checklist of health organizations
- Government documents
- Google Scholar
- Reference chaining
- Researchers in your field
- Hand searching
Planning Your Grey Literature Search

- Identify your stakeholders
- Create a search and documentation strategy
  - Targeted website browsing
  - Identify and search databases that contain grey literature
  - Search through regular search engines (Google, Duckduckgo)
  - Contact knowledge experts
Grey Literature Resources at UBC

UBC Grey Literature for Health Sciences:
https://guides.library.ubc.ca/greylitforhealth

Research Methods in Social Work Research:
https://guides.library.ubc.ca/c.php?g=307422&p=2632228

Aboriginal Forestry:
https://guides.library.ubc.ca/cons370/greylit
TOOLS TO HELP MANAGE RESULTS
Tools for Managing Results

As you create your search export your results there are a number of tools that can help:

- Excel: Tracking search terms and translations.
- Refworks: Citation management and deduplication.
- EndNote: Citation management and deduplication.
- Covidence: Deduplication and screening.
WRITING A GOOD SEARCH METHODS SECTION
How to Write a Good Search Methods Section

- Document your entire search strategy (keywords and subject headings for each database, search operator choices).
- Document the date the search was conducted.
- Document the number of items retrieved for each line of your search as well as the number of items retrieved by your complete search.
- Document how you are finding grey literature/ how you are finding unpublished studies.
  - While this part of your research may not be perfectly reproducible, it is important to talk about your complete search strategy, not just the databases you search.
Resources

- Systematic Review and Scoping Guide
- Cochrane Handbook for Systematic Reviews of Interventions
- Systematic Reviews: CRD’s Guidance for Undertaking Reviews in Health Care – Appendix 3
- Database searching tutorials
- Events at the Library
Where to Find Resources

Welcome to the UBC Library Research Guides

Planning Your Research
- Getting Started on Your Research
- See More...

Evaluating & Citing Sources
- Evaluating Information Sources
- How to Cite
- See More...

Finding Resources
- Research Guides
- Journal Articles
- See More...

Publishing Research
- Getting Started with cIRIE
- Building Your Academic Profile
- See More...

Subject Guides

African Studies 1
Agriculture 2
Anatomy 1
Animal Science 1
Anthropology 5
Architecture & Landscape Architecture 5
English 1
Environmental Sciences 3
Family Practice 1
Family Studies 1
Film Studies 2
First Nations Studies 19
Music 2
Neuroscience 1
Nursing 2
Obstetrics & Gynaecology 1
Occupational Therapy 2
Consulting with Your Librarian

“Medical/healthcare librarians and information specialists have an integral role in the production of Cochrane Reviews.” - Cochrane Handbook for Systematic Reviews of Interventions

- If you are going to be conducting a systematic review (or any kind of literature search), an academic librarian can help you:
  - Identify databases to search
  - Create your search strategy
  - Troubleshoot your search strategy
Thank you!