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ISPW Workshop: Literature Research Practices HS24

Excercises

1. Finding search terms

a) Brainstorm a list of search terms for your own research topic or the sample topic. Identify the main aspects of the topic and organize the search terms accordingly.

Topic aspects				
Search terms				

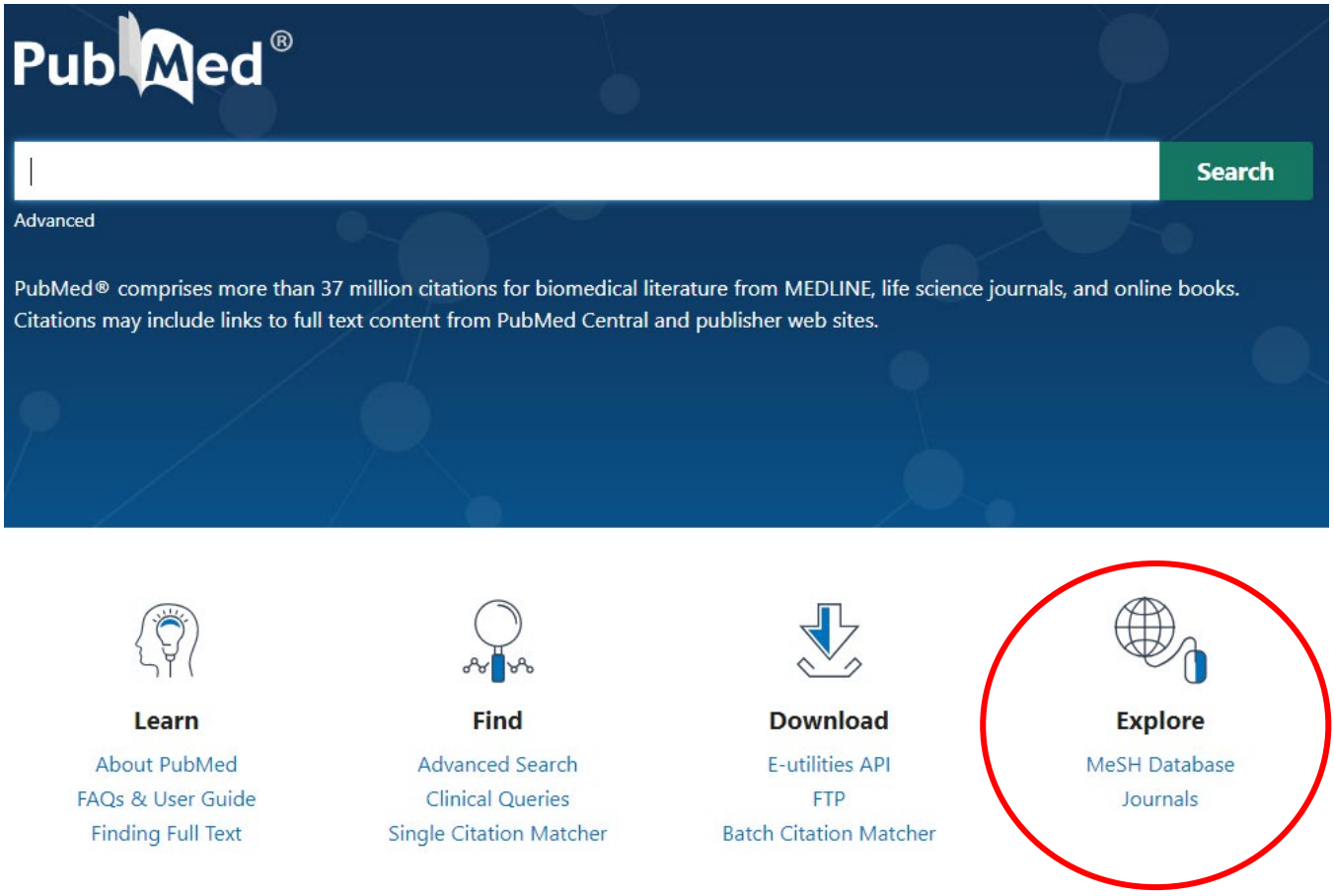
b) Extend your list of search terms by
- looking at the keywords/subject headings of a relevant publication for your research topic that you already know;
- performing exploratory searches in SportDiscus, PsycInfo (Basic or Advanced Search), PubMed and looking at a relevant title
- asking an GenAI-tool to provide you with further search terms.

2. Formulating a search string

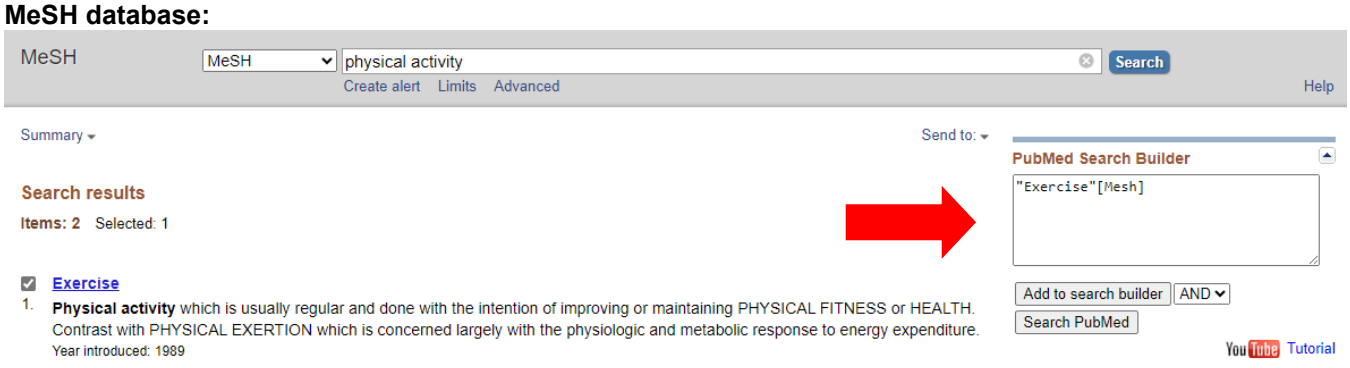
a) Consider if/to what extent the PICO(S/T) model is helpful to formulate a complex logical search string for your research topic.
b) Use Boolean operators and possibly wildcards/phrases/truncation to formulate a logical search string out of your list of search terms.
c) Try out your search string in 2-3 (or more) of the following databases: SportDiscus, Web of Science (search mode “Topic”), Scopus, PsycInfo (Advanced Search), PubMed (no truncation/phrases/ wildcards), SURF (search in German).
d) Look at the filter options (limiters) in the different databases and how they help you refine your search results in view of your inclusion/exclusion criteria (for example: publication years, method, study type, population, citations, …)

3. Finding subject headings in subject indexes

a) Find subject headings corresponding to your search terms in the PsycInfo thesaurus by using Advanced Search and ticking the box “Map Term to Subject Heading”. Note that there might not be a subject heading for every keyword.
b) Select the appropriate subject heading(s) and perform a search by clicking on continue.
c) Make a copy of your previous search string and add the subject headings to it as they appear in the search history. (The / after the term indicates that the term will be searched as a subject heading and not as a keyword. Do not delete keywords that are identical to subject headings.)
d) Try out your adapted search string in PsycInfo.
e) Find subject headings corresponding to your search terms in the MeSH database by selecting “Explore MeSH Database” on PubMed and then entering the keyword in the search box.
f) Select and add the subject heading(s) to the search builder (on the right) connecting them with the appropriate Boolean operators and perform a search in PubMed.
g) Make a second copy of your search string and add the MeSH terms to it.
h) Try out your adapted search string in PubMed and consult the search history under “Adanced”.



MeSH database:



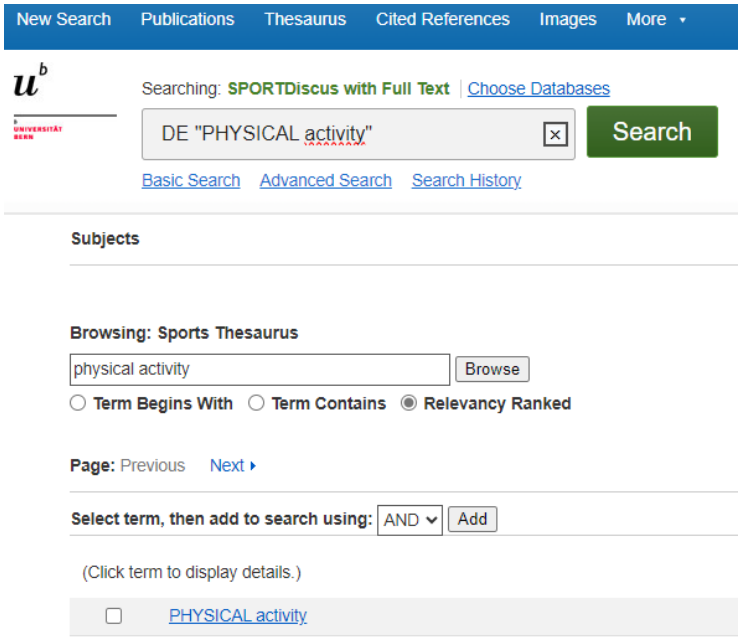
4. Experimenting with search strings, search fields, limiters

Experiment further with your search strings in the databases of your choice: search over specific fields, try different search modes and limiters, compare the size and quality of the results.

Propositions for specific databases:

SportDiscus

- Use the thesaurus to find subject headings for your search terms and add them to the search.



- Try searching over specific search fields (Abstract, Title, All Text).

Web of Science

- Use the limiters to select “Highly Cited Papers” or sort results by most cited papers.
- Look at the “Citations” and “References” of a highly cited paper.
- Look at the advanced search options and the search history. Try out the options to build a search and to combine previous searches.

Scopus

- Try editing your search string with “Edit in advanced search”
- Try the advanced query options.
- Look at the preprint and data tab.

5. AI research tools

Try out different types of tools to find literature for your research topic. If possible use a personal Wifi access when trying out tools with limited functionalities per user.

a) Try a citation-based tool based on articles you have already found and compare the search results to the results you have found in the databases.

b) Try a tool based on semantics by entering a short description of your research topic and compare the results you find. Do the results change if you formulate your research query differently (for example reformulated with a GenAI-tool)?

Tools:

a) citation-based	*b) based on semantics*	
Inciteful https://inciteful.xyz/	Semantic Scholar https://www.semanticscholar.org/	Scite_ AI for Research | Scite 2 tries via «try it»
Litmaps https://app.litmaps.com/ with login (or without via “give it a try”)	Web of Science Research Assistant below the search box (Test access until 31 Oct. 24)	Perplexity https://www.perplexity.ai/
Connected Papers https://www.connectedpapers.com/	Elicit Elicit: The AI Research Assistant with login	Open Knowledge Maps https://openknowledgemaps.org/
ResearchRabbit https://www.researchrabbit.ai/ with login	EvidenceHunt Chat Page (evidencehunt.com) with login (or “search” without)	Scispace https://typeset.io/ 2 tries without an account

6. Citationchaser

Try the tool citationchaser to find references and citations for a corpus of literature on the basis of identifiers like DOI, PMID, etc.

Test the tool based on a single publication of interest or insert a list of identifiers (for example exported from a citation reference management software via a .cvs-file).

7. Bibliometric indications

Finde the following article in Scopus, Web of Science, Dimensions (if you have registered for Dimensions) and on Springer Link (via the DOI):

Figueroa, C. A., Gomez-Pathak, L., Khan, I., Williams, J. J., Lyles, C. R., & Aguilera, A. (2024). Ratings and experiences in using a mobile application to increase physical activity among university students: Implications for future design. *Universal Access in the Information Society*, *23*(2), 821–830. Scopus. https://doi.org/10.1007/s10209-022-00962-z

Look at the bibliometric indications for the article, the journal and the authors. What indications do you find helpful and why (not)?