What is systematic literature searching?

The search focuses on a single topic or research question which aims to cover all the available research relating to the question. It is conducted using one or more databases (usually three) and requires the use of appropriate search terms with synonyms, related terms etc. It also includes an audit trail (usually presented in a table) showing how you refined your results and arrived at your final articles.

Look at a sample dissertation

- If you are doing a research or dissertation module, a good starting point is to look at a good example of a literature search. You can link to example dissertations in the Advanced Literature Search Guide at [http://libguides.uos.ac.uk/search-guide/advanced](http://libguides.uos.ac.uk/search-guide/advanced)
- Do not use Google to find your articles before conducting a systematic database search as it is extremely difficult to construct a retrospective search strategy that will find the exact same articles.

Consider your topic or research question

- You do not need a fully developed research question before starting your search.
- You can start with a quick pre-search for a general topic, limit to those that are recent studies and look for themes you can explore in order to develop your topic into a question.
- Use a framework such as PICO or PEO to help to formulate your question and identify the key concepts within it. Then find appropriate search terms to describe these concepts.
- Consider your inclusion and exclusion criteria – who is your population (e.g. age, gender, condition, illness etc.), what interventions, exposures or outcomes are of interest? What research design is appropriate?

Develop your search terms

- Using the right search terms to describe your key concepts is the key to successful searching and you may need to adapt and refine these as you go.
- Use synonyms (similar words), antonyms (opposite words), related words, acronyms, abbreviations and different terminology to improve your search. Using a thesaurus will help.
- **TIP!** Your PEO/PICO statements may differ in structure from the search strings you enter into the database although it is likely you will use the same search terms.
- Keep your search clean and lean - avoid using vague words and phrases like “the role of” or “the impact on” as these are not key concepts and are rarely helpful in searching.

Select appropriate databases to search

- It is normally recommended that you search around three specialist nursing and health databases as these allow for more complex and structured searching than Google or Summon.
- Select the databases most relevant to your topic e.g. Psychology Database (for mental health nursing) or Cinahl and British Nursing Database or Nursing and Allied Health for general nursing and health-related topics.
Conduct your search

- Search for your terms within the citation (the default option for Cinahl); for Proquest databases, switch to the Anywhere except full-text search option (= the citation) to avoid too many search results.
- For best search results apply standard search techniques e.g. Boolean operators (AND, OR, NOT), truncation, proximity operators etc.
- TIP! Always use advanced search options as these facilitate more structure searching.

Refine your search results

- Check your results to ensure they are looking relevant. If not, tweak your search strategy e.g. try different search terms, check your use of Boolean operators or truncation etc. or re-run your key search string as words in title rather than in citation to focus the results more.
- If required, refine your results to primary research articles by searching for the word study and combining these results with those from your topic search.
- Refine further by applying any limit options or other expert filters offered by the database e.g. date, peer-reviewed/ scholarly journals, publication (journal) title, English language etc.
- You should aim to end up with no more than 60 or 70 results if possible although this will vary according to your topic.

Making your final selection

- Once the database limits and filters have been applied you may have between 20 and 80. If you have over 100 it may be best to refine again (see above).
- Now check your results for titles that look relevant and exclude those which are not.
- While evaluating the remaining articles, you should revisit your PICO and PEO statements (if used) to keep on track ensure that the papers you select are relevant to your question e.g. that the population is correct.
- Do the articles come from appropriate journals and do they relate to the UK? If the article is from an international journal can you defend the including it in your selection?
- Check the research methodologies and design of your articles - quantitative papers are likely to be RCNs or cohort studies based around experiments or interventions while qualitative papers may be grounded theory, phenomenological or ethnographic studies which look predominantly at people's experiences.

Documenting your search

- It is good practice to document your search results in a table showing your search terms, the number of results for each database, and any search limits and filters used. This is an audit trail, showing that your search is transparent and replicable by anyone reading your work.

Critical appraisal

- Once you have selected your final articles you should critically appraise them to judge their quality, value and relevance. Look for appropriate research design, data collection, bias, sampling strategy and try to spot any weaknesses in the research e.g. very small samples.
- Use the CASP tools at http://www.casp-uk.net to help with your appraisal.