The Basic Rules of Doing a Good Search and Search Tips

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The Basic Rules of Doing a Good Search and Search Tips

Keep in Mind: Search comprehensiveness is determined by information need. 
(Patient Care v. School Assignment)

1) **Break Search into Concepts**
   - Easier to manipulate your search to get desired results.
   - Start with two most important concepts from your question.
   - Combine with Boolean operators - **AND, OR, NOT**

2) **Come up with Alternative Terms or Concepts for Your Topic**
   - Databases = Different Audiences
   - Remember: Terms people use are based on background / perspective / education / profession
   - Sources for alternative terms:
     - Index/Entry Terms of Subject Headings
     - Terms from Related Articles
     - Google Scholar

<table>
<thead>
<tr>
<th>Concept/ Term #1</th>
<th>Concept/ Term #2</th>
<th>Concept/ Term #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handwashing</td>
<td>Hospital Acquired Infections</td>
<td>Nurse</td>
</tr>
<tr>
<td>OR Hand Hygiene</td>
<td>OR Hospital Acquired Infections</td>
<td>OR Nurse OR Nurses OR Nursing</td>
</tr>
<tr>
<td></td>
<td>OR Nosocomial Infections</td>
<td></td>
</tr>
</tbody>
</table>

Concept/ Term Synonyms/ Related Concepts (Other Ways to Describe)

OR

OR

OR
3) Use Subject Heading When Possible *(Advanced Searching Skill)*

- PubMed – Medical Subject Headings (MeSH)
- Embase – Emtree (Embase Subject Headings)
- CINAHL – CINAHL Headings
- Useful Tools:
  - MeSH on Demand: [https://www.nlm.nih.gov/mesh/McSHonDemand.html](https://www.nlm.nih.gov/mesh/McSHonDemand.html)
  - Yale MeSH Analyzer: [http://mesh.med.yale.edu/](http://mesh.med.yale.edu/)

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controlled Vocabulary (Subject Heading)</strong></td>
<td></td>
</tr>
<tr>
<td>• May provide terms that can broaden or narrow search</td>
<td>• Recently coined terms may not have a subject term assigned</td>
</tr>
<tr>
<td>• Accounts for most common synonyms</td>
<td>• Can be difficult to find if no list of subject terms is included in the database</td>
</tr>
<tr>
<td>• Retrieve all items in database indexed under the topic</td>
<td></td>
</tr>
<tr>
<td><strong>Keyword</strong></td>
<td></td>
</tr>
<tr>
<td>• Retrieve synonyms, jargon, new or distinctive words</td>
<td>• May retrieve irrelevant articles</td>
</tr>
<tr>
<td>• Identify relevant articles quickly to find appropriate controlled vocabulary</td>
<td>• Your search must account for synonyms and alternative terms</td>
</tr>
</tbody>
</table>

4) Start Your Search Broad and Then Focus

- Use Limits/Filter of the Database *(Publication/Study Types, Language, Gender/Sex, Etc.)*
  - Start at the Top of the Evidence Pyramid and Work Down
  - Add an Additional Concept or Term

<table>
<thead>
<tr>
<th>Finding Too Many Articles? Ways to Decrease/Focus Your Results</th>
<th>Not Finding Enough? Ways to Expand/Increase Your Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Utilize limits to English language, human subjects, review articles, time period searched <em>(last 5 years)</em>, etc.</td>
<td>• Add additional synonyms</td>
</tr>
<tr>
<td>• Add an additional term or concept</td>
<td>• Explode subject headings whenever possible</td>
</tr>
<tr>
<td>• Do not explode</td>
<td>• Do not restrict subject headings to major focus/heading</td>
</tr>
<tr>
<td>• Restrict subject heading to major focus or major heading</td>
<td>• Do not choose subheadings</td>
</tr>
<tr>
<td>• Choose any relevant subheadings</td>
<td>• Consider searching back in time, look at citations of relevant article found</td>
</tr>
</tbody>
</table>
### 5) Always Search at Least Two Databases – *Unique Articles in Each Database*

Provide different ways to access existing literature on a topic and may find evidence in one database using terminology that would not be found in another database.

<table>
<thead>
<tr>
<th>Database</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed</td>
<td>Contains biomedical literature. Good place to search when the question is medical in nature or when you are not sure where to start.</td>
</tr>
<tr>
<td>EMBASE</td>
<td>Contains biomedical and pharmacological literature. Good place to search when it comes to medical, pharmacology and toxicology topics or questions.</td>
</tr>
<tr>
<td>CINAHL</td>
<td>Contains nursing and allied health literature. Good place to search when questions fall within the scope of nursing and allied health practice.</td>
</tr>
<tr>
<td>PsycINFO</td>
<td>Contains psychological literature. Good to search when the question addresses psychology or psychiatry topics.</td>
</tr>
<tr>
<td>Cochrane Library</td>
<td>Resource that contains several different databases, one of those being the database of systematic reviews. Good place to search when you are searching for systematic reviews, economic evaluations and randomized controlled trials.</td>
</tr>
<tr>
<td>ERIC</td>
<td>Contains education research. Good places to search when your question addresses educational topics.</td>
</tr>
<tr>
<td>Business Source Complete</td>
<td>Contains business, management and economic research. Good places to search when your search address management, economic or business topics.</td>
</tr>
</tbody>
</table>

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**Nursing Research Guide:**  
[https://guides.library.vcu.edu/nursing](https://guides.library.vcu.edu/nursing)
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Reasons for Differences in Searches

Word Choice

Background / Education / Perspective / Profession

Boolean Operators - AND / OR / NOT
- OR: More; ANY of your search terms can be present in the resulting records.
- AND: Less; ALL search terms must be present in the resulting records.
- NOT: Narrow; Exclude words/concepts from your search.

How Terms are Combined

PubMed/MEDLINE or OVID MEDLINE
Biomedical/Medical Topics

Embase
Biomedical/Medical and Pharmacological Topics

CINAHL
Nursing and Allied Health Topics

Databases Searched

Different Word or Term Options

Use of Quotation Marks = Exact Phrase Searching

Singular or Plural
Nurses v. Nurse

Truncation (*)
Nurs* = Nurse, Nurses, Nursing
Be Cautious When Using!

Compound Words
Together or Separate
“Handwashing” or “Hand washing”

Use of Limits / Filters
Put on After Combining Terms

Field of Citation Searched
Title, Abstract, etc.

Subject Headings
MeSH, Emtree, CINAHL Headings, etc.