Search Strategies for Database Searching

Search Process

First, identify the key concepts. Then, organize the concepts into columns, and write synonyms and related phrases. Decide which databases are appropriate for the key concepts. Choose search techniques that are available in the chosen databases. Run the search. Review the results and decide if the search strategy needs modification. Modify the search strategy and run the search again.

Example: I need articles that discuss family engagement in juvenile justice.

Step 1 - Identify the Key Concepts

family engagement, juvenile justice

Step 2 - Organize into Columns and Write Synonyms and Related Phrases

<table>
<thead>
<tr>
<th>family engagement</th>
<th>juvenile justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>family involvement</td>
<td>juvenile detention</td>
</tr>
<tr>
<td>parent engagement</td>
<td></td>
</tr>
<tr>
<td>parental engagement</td>
<td></td>
</tr>
<tr>
<td>parent involvement</td>
<td></td>
</tr>
<tr>
<td>parental involvement</td>
<td></td>
</tr>
</tbody>
</table>

Step 3 - Choose Appropriate Databases

Family & Society, Social Work, PsycInfo, Academic Search Complete

Step 4 - Apply Search Strategies

Strategy 1 - Boolean Operators

AND (narrows the results through inclusion)
  for example: anorexia AND athletes

OR (broadens the results)
  for example: anorexia OR bulimia OR binge eating

NOT (narrows the results through exclusion)
  Some databases use AND NOT (Read the database guide.)
  for example: smoking NOT cigars
  for example: smoking AND NOT cigars
Strategy 2 - Truncation / Stemming (finds different word endings)

Common truncation/stemming symbols: * $ ! (Read the database guide.)
Most databases require at least 3 letters before the symbol.

staple* finds: staple, staples, stapler, Stapleton, etc.
school$ finds: school, schools, schooler, schooling, Schoolbury, etc.
disorder! finds: disorder, disorders, disordered, disorderly, etc.

Strategy 3 - Phrase Searching (exactly these letters and spaces in this order)

"national association of social workers"

Some databases allow truncation/stemming inside a phrase (Read the database guide.) For example: "public health**"

Strategy 4 - Limits

Academic Journals
Publication years (for example: 1997-2001)
English (article is in English)
Publication type (for example: periodical, book, newspaper, etc.)
Document type (for example: article, book review, editorial, etc.)

Strategy 5 - Field Qualification (restrict information to a specific field)

Bradbury* in the author field
"social policy" in the title field
"journal of mental health" in the source/journal name field
**Strategy 6 - International Versions (to include the international literature)**

International spellings (for example: centre, programme, behaviour, etc.)

International terms
  - for example: lift (Americans use elevator)
  - for example: flat (Americans use apartment)

**Strategy 7 - Proximity Operators (read the database guide)**

The most common proximity operators are Near, Within, and Adjacent. Proximity operators tell the database to find two search words, but to allow only a certain number of other words to come between the two search words. For some databases, the order of the two search words matters. Some databases define the proximity operator as fewer than XX number of words between the two search words. Some databases do not have proximity operators. The database guide will tell you the proper format to use.

- `dog* NEAR 6 cat`
- `dog* WITHIN 6 cat`
- `dog* ADJ6 cat`
- `dog* N6 cat`
- `dog* W6 cat`
- `dog* ADJ/6 cat`
- `dog* N/6 cat`
- `dog* W/6 cat`
- `dog* ADJ/6 cat`

The above examples would give this result to you:
The dog's attention turned to the cat.

Proximity operators would be helpful if you were searching for Beck's depression inventory because the topic appears in various ways:
- the depression inventory developed by Beck
- Beck's inventory for depression
- the inventory for depression created by Beck
- Beck published a depression inventory

**Applying the Search Strategies to the Example for the Academic Search Complete Database:**

<table>
<thead>
<tr>
<th>&quot;family engagement&quot;</th>
<th>&quot;juvenile justice&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>&quot;family involvement&quot;</td>
<td>&quot;juvenile detention&quot;*</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>&quot;parent* engagement&quot;</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>&quot;parent* involvement&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Apply the limits: 2000 - now, academic journals, English
Step 5 - Run the Search

Use the advanced search mode when it is available.
Type each column into the database as a separate search.
Use OR to type the terms/phrases for a column.
Use AND to combine the set numbers of the columns.

**NOTE:** Some databases have a limit on the number of terms/phrases that can be searched at one time. Test the search if you are using many terms/phrases.

Use the search history/previous searches tab to combine the search sets.
Follow the database's format for writing the set numbers.
   For example: S1 AND S2 AND S3
   For example: #1 AND #2 AND #3

Step 6 - Examine the Results (Words to Include/Exclude, Strategy Changes)

Look at the results and decide if the results meet your needs. If not, consider the following ways to modify the search.

If your search produces too many results, consider the following:

   Apply more limits or tighten the existing limits.
   Field qualify the terms to the Title along with the Subject fields.
   If a database thesaurus is available, use the thesaurus search.
   Include another concept in the search (AND another column of phrases).
   Use NOT to get rid of results that use the terms in a different context.
   Use phrase searching instead of word searching (apply the quote marks).
   Use proximity operators if available in the database.

If your search produces too few results, consider the following:

   Check your spelling. Misspelled words produce fewer results.
   Add broader terms (for example: eating disorders to a search on anorexia).
   Broaden or remove some of the limits that you applied.
   Choose a different database.
   If a database thesaurus is available, choose broader or related terms.
   Look at the words/subjects used in a good result. Revise the search to include the new words.
   Look in a thesaurus for more synonyms and then revise the search.
   Run the search with fewer concepts (do not AND one of the columns of phrases).
   Use a truncation/stemming symbol.
   Use both the American and international spellings and phrases.
When looking at the results for the example, notice that "juvenile delinquen*" appears in several of the citations. It would be a good idea to modify the search and use OR to include "juvenile delinquen*" in the column of justice related terms.

**Step 7 - Revise the Search and Run the Search Again**

Remember: use OR to type the phrases for a column.

use AND to combine the set numbers of the columns.

**Revising the Example to Include Juvenile Delinquency:**

<table>
<thead>
<tr>
<th>&quot;family engagement&quot;</th>
<th>&quot;juvenile justice&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>&quot;family involvement&quot;</td>
<td>&quot;juvenile detention*&quot;</td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>&quot;parent* engagement&quot;</td>
<td>&quot;juvenile delinquen*&quot;</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>&quot;parent* involvement&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Apply the limits: 2000 - now, academic journals, English
Template for database searches:

Concept 1  |  Concept 2  |  Concept 3
----------|------------|------------
OR        | OR         | OR         
OR        | OR         | OR         
OR        | OR         | OR         
OR        | OR         | OR         

AND  | AND         

In the search history/previous searches tab, combine the concepts.

Set number for concept 1 AND set number for concept 2 AND set number for concept 3

Selected Databases as a Starting Point

<table>
<thead>
<tr>
<th>Health Orientation:</th>
<th>Social Orientation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL Plus</td>
<td>Academic Search Complete</td>
</tr>
<tr>
<td>Cochrane Library</td>
<td>Annual Reviews</td>
</tr>
<tr>
<td>Global Health</td>
<td>ASSIA: Applied Social Sciences Index &amp; Abstracts</td>
</tr>
<tr>
<td>Health and Wellness Resource Center</td>
<td>Family &amp; Society Studies Worldwide</td>
</tr>
<tr>
<td>Medline/PubMed</td>
<td>IBSS: Int'l Bibliography of the Social Sciences</td>
</tr>
<tr>
<td>Pilots</td>
<td>Social Services Abstracts</td>
</tr>
<tr>
<td>PopLine</td>
<td>Social Work Abstracts</td>
</tr>
<tr>
<td>PsycInfo</td>
<td>SocIndex with Full Text</td>
</tr>
<tr>
<td>Scopus</td>
<td>Web of Science</td>
</tr>
</tbody>
</table>