Unit 1: Research Resource Discovery

Advanced Searching Techniques
Successful searching

- Searching for information at postgraduate level has to be precise and thorough.

- Successful literature reviews are created from searches using well chosen keywords and phrases over a broad range of resources.
Types of searches.

- **Keyword search**
  - Journal title
  - Words from the title of an article
  - Words form the abstract of an article
  - Authors’ names
  - Search a number of these fields at the same time

- **Subject(descriptor) search**
Keyword Searching

- Looks for words in any field within the databases’ records - title, author, abstract

- You can also specify the field in which you wish to search

- Can find results that use your search term in a different way than you intended – banking used in reference to airplanes, not finance
Subject Searching

- Search limited to the subject field in a database record
- Subject headings or descriptors describe the main topics of each article or book.
- Search using standardized words or phrases chosen by experts in the field.
- Most databases offer a thesaurus that helps you identify subject headings.
Swine Flu

- Swine flu
- Swine influenza
- H1n1
- H1n1 swine
- Swine-origin influenza

Subject/ Descriptor = Influenza A Virus, h1n1 subtype
To conduct a precise and thorough search you may need to employ a variety of search techniques:

- Boolean logic
- Phrase searching
- Truncation
- Wildcards
- Proximity operators
- Nesting
Not every technique is supported by every resource, and the manner in which the techniques are applied is not standard.
Using the Right Keywords

- To create a precise and thorough search you will need to spend some time gathering together relevant search terms and phrases.
- Synonyms and related terms must also be considered to ensure a comprehensive search (keyword searching)
Phrase Searching

- Allows you, in a database - to search for particular words in a particular order.
- Useful for proper names, names of companies and names of government departments.
- Most phrase searches should be in quotations

  e.g. "health care reform"
Boolean operators are used to combine words and phrases together when searching.

- The operators can narrow or broaden a search.
- There are three operators: AND, OR, NOT.
AND

• AND retrieves documents that contain all of the search terms
  e.g. Steroids **AND** sports requires that only records that contain both the terms steroids and sports will be returned in the results.

• AND focuses a search as it ‘forces’ the database to return only documents that contain all terms
AND reduces the number of items found
Transpiration AND Humidity AND Moisture
Boolean Logic: OR

- Will find documents that contain at least one of the terms searched for
  e.g. college OR university

- This search will also return documents that contain both terms
  e.g. college AND university

- Or is used to broaden a search. It does this by including more terms.
Boolean Logic: OR

OR increases the number of items found
Cloning OR genetics OR reproduction
• **OR** is a good operator to use if you want to include synonyms or acronyms or related terms in your search:
  - Illness OR disease OR sickness
  - VAT OR value added tax
  - Cannabis OR marijuana
  - Adrenaline OR Epinephrine
  - A&E OR emergency department
  - French OR France
  - Teach OR instruct OR educate

• **N.B.** in Google “|” and “OR” will perform the same function. ~ will search for synonyms in Google e.g. ~inexpensive matches “inexpensive,” “cheap,” “affordable,” and “low cost”
Boolean Logic: NOT

- Will exclude documents containing a particular term
  - e.g. aids NOT hearing will find documents that contain the term aids but will exclude those documents that also include the term hearing
  - Depression NOT economic

- Not focuses a search by reducing the number of articles returned in a search

**Use NOT with caution; you may exclude relevant items**
Boolean Logic: NOT

Not reduces the number of items found
The use of parentheses in a search statement to separate elements of the statement.

It divides a search strategy into logical groups

- \{\text{pets NOT (cats OR dogs)}\} \text{ AND behaviour} - this statement would be used to search for material on the behaviour of all pets except cats and dogs.
- (French OR France) AND (theater OR drama OR performance)
Truncation & Wildcards

• Truncation: This is useful when searching for the singular and plural form of a word as well as for terms that can be reduced to a common stem. Often the asterisk (*) is used

e.g. enzym* matches enzyme, enzymes, enzymatic, enymic etc.

• Wildcard: You may be able to one or more letters within a word by using a character, often a question mark (?) or an asterisk (*).

e.g. wom?n matches woman OR women
sul?ur matches sulphur of sulfur
Cancer OR neoplasm* OR tumo?r*
Adjacency Operators:

- Adjacency or Proximity operators can also be used to assist with constructing a search statement.
- These are not true Boolean Operators, but “behave” similarly. Adjacency operators dictate how search terms should be positioned. They are:
  - NEAR
  - WITH (or WITHIN)
  - ADJ

- The most frequently used of the adjacency operators is NEAR.
- For example, if looking for articles about technological obsolescence, a search statement using an adjacency operator might be:

  technological NEAR obsolescence AND 8-track
• The WITHIN command will instruct the search engine to find articles where the first word appears some number of words before or after the second word.

• Some databases reduce adjacency commands to a “shorthand” code. For example, ProQuest shortens WITHIN to “W”:

  computer W/3 careers

... will search for the term “computer” within three words of the term “careers”
### Useful Symbols and Shortcuts

<table>
<thead>
<tr>
<th>“”</th>
<th>()</th>
<th>* or ? Wildcard</th>
<th>* or ? Truncation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terms searched in between quotation marks will be searched verbatim, meaning in the same order with the same spelling (useful for finding specific phrases or article titles), e.g.: “Public Dreams and Private Myths: Perspective in Middle English Literature”</td>
<td>Parentheses are used in conjunction with Boolean operators to group search terms, e.g.: (interpretation OR analysis) AND (memories OR dreams)</td>
<td>Used mainly to search alternate spellings, e.g.: colo<em>r or colo?r ... which will search for both “color” and “colour.” Or, wom</em>n or wom?n ... which will search for woman, women, or womyn.</td>
<td>Truncation is searching with a shortened form of a word to include a wider range of results, e.g.: prim* or prim? will search terms such as “primate,” “primates,” “primitive,” and “primal.”</td>
</tr>
</tbody>
</table>
• 1  Section 2  
• 2  Sections 1, 2 and 3  
• 3  Section 1  
• 4  Section 4  
• 5  Sections 4, 5 and 6  
• 6  Section 5
Answers

- (girls OR women) AND diets
- (UAE OR Gulf) AND women AND education
- (happiness OR satisfaction) AND (work OR job)
- Health AND (food OR nutrition) AND society
- (child* OR teenagers OR adolescents) AND (school OR education) AND socialisation