INTRODUCTION

This guide summarises the key issues on searching techniques needed to produce a good quality research strategy.

A note about databases in general

If you are unfamiliar with database searching, there are some important things you should know before you start.

Databases are searchable collections of the article references from many hundreds or thousands of journal titles (and other information sources). The total number of references might be in the hundreds of thousands or even low millions. When you enter your keywords you are searching all of these sources at the same time.

The library subscribes to hundreds of specialist databases to support the various subjects taught at the University. Within a particular subject area, e.g. Social Sciences, there might be anything up to 50+ databases which could prove useful. There will be a core number of journal titles which are indexed in more than one database but some databases contain journal references which are particular only to them. This is why researchers have to repeat their search in multiple databases to ensure that they are not missing any relevant results.

Most literature reviews will look at 5-8 database sources (sometimes more) depending on the subject area to ensure that nothing useful has been missed.

Not Google

Using the subject databases is not like searching Google or other internet search engines. You cannot simply type in your assignment question and use whichever results are returned. To make best use of the databases you must be able to break your search question down into the separate concepts or key elements involved.

Some of the databases have a subject index or thesaurus which helps define the meanings of various search words. This can help you use the correct terminology in your search, in addition to any extra keywords. They may also suggest related terms you may not have thought of and allow you to expand your search appropriately. Other databases will not have this type of indexing and will rely solely on the keywords you choose.

You will then need to combine your search words together with the relevant search operators or connectors, e.g. AND, OR etc., and special characters such as wildcards and truncation. (These are discussed more fully later).

Accessing the relevant databases

Use the Library & ICT tab on Portal or the Library homepage and choose individual databases from the A-Z on the left-hand side of the screen or the Databases link to be found under the Electronic Resources tab on the Library homepage http://library.ulster.ac.uk. These resources are available on or off-campus.
For any access problems, see: http://guides.library.ulster.ac.uk/soc/troubleshooting/

The most common information sources for use in EBP can be found within OVIDSP, Proquest Complete, Web of Science, EBSCO, Scopus, Cochrane and Social Care Online.

Note: Do not attempt to do your search using the Electronic Journals link.

**OVIDSP Collection**

The OVID platform provides a range of databases covering a number of subject areas, including medicine, nursing, health care and psychology. Two are recommended for Evidence Based Practice: Medline - the largest medical and health database and PsycInfo, which is a specialist psychology database.

**Medline** uses something called Medical Subject Headings (MeSH). This provides a controlled vocabulary of some 15,000 terms which can be used to describe very precisely the content of medical documents. In addition to assigning MeSH terms that describe the topic of the article, the index provides terms that reflect:

- the age group of the population studied
- the nature of the studies, e.g. human, animal, male, female
- the material represented, (publication types) e.g. clinical trials, editorial, review.

**PsycInfo** uses an equivalent (but not identical) APA Thesaurus of Psychological Index Terms. Because of the differences in the indexes used, you should normally not search both of these databases at the same time.

**Note:**

You must demonstrate effective use of the subject index in your search history. To do this, use the Advanced search option, tick the “Map Term to Subject Heading” box and search for your concept words/phrases one at a time. If you want to use multiple search terms or use truncation/wildcards you should un-tick the Mapped Terms box.

Results are displayed in most recent date order. It is not possible to sort your results by relevance. Use the Limit and Additional Limit options to limit your PsycInfo results to articles from peer-reviewed journals, published only in English. Medline content is already peer-reviewed.

A series of short video tutorials on searching Medline is available at: http://library.ulster.ac.uk/training/videoguides/medline_ovidsp/

**PROQUEST COMPLETE Collection**

Useful databases within Proquest Complete include Social Services Abstracts, ASSIA (Applied Social Services Index and Abstracts), Proquest Criminal Justice, Proquest Health & Medical and National Criminal Justice Reference Service Abstracts.
Not all databases within Proquest contain a thesaurus of terms, so you may end up using your own keywords instead, or terms already found in a previous OVID-type search.

Results will come from many types of publications. You should normally restrict your results to peer-reviewed articles only, but in this collection of databases you can also use the ‘Scholarly’ limit to remove non-academic journals.

**SCOPUS**

This database covers over 19,500 sources of high quality information in four subject areas – 2 of which will be relevant to you: Social Sciences & Humanities and Health Sciences.

Do not select the Advanced search in this database. Instead, use the default Document Search screen (adding additional search rows as necessary) and build your search strategy. Scopus contains several indexes, including MeSH – should you wish to use them. Otherwise use your own keywords or terms already identified in a previous OVID platform search.

Results are sortable by date or relevance and may be further limited using the filters on the left of the results screen. Use the UU Find it button to link out to full text (where available).

**WEB OF SCIENCE Core Collection**

Web of Science contains 6 databases, including the Social Science Citation Index, a multidisciplinary index to the journal literature of the social sciences. It indexes over 1,950 peer-reviewed journals across 50 social sciences disciplines. Web of Science does not contain an index or thesaurus of subject terms, so you will have to search it using your own keywords or terms already identified in a previous OVID style search.

**EBSCO Collection**

This collection includes the Criminal Justice Abstracts, British Education Index, ERIC (Education Resources in Context) and Cumulative Index for Nursing and Allied Health (CINAHL).

Criminal Justice Abstracts covers 400 journals in the area of criminology, penology, probation and criminal justice.

CINAHL has authoritative coverage of the literature related to nursing and allied health. In total, more than 500 journals are regularly indexed. You can enter search terms and mark the “Suggest subject terms” check box. When you click Search, the corresponding thesaurus displays the most appropriate terms, similar to MeSH in Medline.

A video is available at: [http://library.ulster.ac.uk/training/videoguides/cinahl/](http://library.ulster.ac.uk/training/videoguides/cinahl/) The examples are nursing related but the search principles will be identical for social work.
COCHRANE

The Cochrane Library contains “high-quality, independent evidence to inform healthcare decision-making. It includes reliable evidence from Cochrane and other systematic reviews, clinical trials, and more. Cochrane reviews [...] are recognised as the gold standard in evidence-based health care”.

You can search Cochrane with keywords or MeSH, as well as browsing its Database of Systematic Reviews or the Register of Controlled Trials. The systematic review articles in Cochrane cannot be used as your chosen study. However, you can use the specific references within a review to locate an individual piece of research which may be appropriate.

SOCIAL CARE ONLINE

Part of Social Care Institute for Excellence, this resource is an excellent useful source of information, especially for those who may not have access to subscriptions-based databases. It is free to use (although you must set up your own login).

You can browse the topic areas or use a number of search levels to find information. However, its search options may not be as sophisticated as those offered by the library subscription databases, nor does it cover as many journals or sources of information as they do.

Nevertheless it does cover grey literature, such as government papers and reports from health or social care bodies which may be missed from library databases. It also uses recognised UK social care terminology, so it can be a handy way of identifying relevant keywords.

There are many other databases available which might prove useful.

See: the Library Social Work guide at: http://guides.library.ulster.ac.uk/socialwork/
DEVELOPING YOUR SEARCH

1. Understanding the type of study – there are two main types of interest in EBP:
   - Effectiveness – e.g. how effective is solution focussed brief therapy for young people who self harm. This would be a quantitative study.
   - Perspectives – e.g. the views of young people who self harm, about accessibility of services. This type of question would be a qualitative study.

2. Creating a question to research

One of the most common problems is coming up with a relevant question in the first place. It may be tempting to try to research something which will be useful for another assignment or reflect a subject you experienced while on placement. However, if this area of interest cannot easily be translated into either an ‘effectiveness’ or ‘perspectives’ type question, you might be better picking a completely different topic.

Once you have a topic, covert it into 2 practice questions: 1 qualitative and 1 quantitative, e.g.

Qualitative:
What are the perspectives of teenagers participating in family group conferencing?

Quantitative:
Is Family Group Conferencing effective with teenagers involved in anti-social behaviour?

Qualitative:
What are the attitudes of older people towards their excessive drinking?

Quantitative:
Is motivational interviewing an effective intervention for older people who abuse alcohol?

Things to bear in mind

- Don’t make your question too specific, e.g. unnecessarily restricting it to ‘Northern Ireland’.
- Don’t include too many search concepts at the beginning, e.g., How effective is CBT for teenage girls in foster care who self harm?”
  Each additional search concept reduces the number of appropriate results. Begin with fewer concepts and gradually narrow your search, based on results found.
- Using the “wrong” information source.
  Some databases are more suitable for certain questions, e.g. a psychological intervention may have more coverage in Medline or PsycInfo. However, a question about “perspectives of looked after children on their transition from care”, might be better covered in a database such as Social Services Abstracts or Web of Science’s Social Science Citation Index.

3. Choose your search words
In addition to taking advantage of MeSH or other subject heading thesauri, you should also be prepared to define or describe your own keywords if necessary.

**Synonyms or related terms**
Identify similar terms (synonyms) for your keywords, to reflect differing ways to describe a topic and to increase the chances of finding a relevant record.

*Example*
- teenager, adolescent, juvenile, youth, etc.
- self-harm, self-injury, self-wounding, etc.
- drug abuse, substance misuse, addiction, etc.
- in care, residential care, “looked after children”
- old people, elderly, etc.

**“Out of date” terminology**
Consider also the historical timeframe for which you need information. Some research studies may have used or still use terminology which is now considered ‘out of date’, discriminatory or offensive, e.g. ‘mental retardation’ instead of ‘learning disability’ or ‘intellectual disability’.

**Truncation**
This is a symbol (often * but always check your database) which, when added to the stem spelling of the word, will find all the variant endings, e.g.

\[
\begin{align*}
\text{motivat}^* &= \text{motivate, motivated, motivator and motivational.} \\
\text{child}^* &= \text{child, children, childhood and childlike.} \\
\text{discrimin}^* &= \text{discriminate, discrimination and discriminatory.}
\end{align*}
\]

**Wildcards**
Most of the databases are US-based, although they include journals from outside the USA, so you must consider variations in spelling between UK and US English, e.g.

\[
\begin{align*}
\text{behavior / behaviour} & \quad \text{organization / organisation} & \quad \text{counseling / counselling}
\end{align*}
\]

The wildcard symbol (often ? but always check your database) allows for this variation in UK vs US English, by representing any alphabetical letter (or none) within the word, e.g.

\[
\begin{align*}
\text{wom?n} &= \text{woman or women} \\
\text{organiz?ation} &= \text{organisation or organization} \\
\text{behavio?r} &= \text{behaviour or behavior}
\end{align*}
\]

**Note:** some databases (such as SSCI on Web of Science) automatically allow for **UK/US spelling; singular/plural**, e.g. drug/drugs, woman/women; **tenses**, e.g. running, ran, runs and **degrees of comparison**, e.g. loud, louder, loudest.

4. **Combine your search words using Connectors**
You will have more than one search concept in your search and it is necessary to link these concepts together in order to retrieve relevant material. You do this by using a range of connector words (sometimes called Boolean operators). The most common are:

AND
OR
NOT

Examples of how each are used:

**AND**

- **teenagers AND self-harm**

The **AND** connector means that only those articles containing both (or all) terms will be included in the results. If only one of the terms is present, nothing will be returned.

This helps to **FOCUS, NARROW or REFINE** your search.

**OR**

- **patient OR service-user OR client**

The **OR** connector is used when there are alternative ways to describe your keyword. If **ANY** of the alternative terms are present, the article will be included in the results.

These alternative terms (or synonyms), used with **OR** help to **WIDEN or EXPAND** your search.

**NOT**

The **NOT** connector means that if your unwanted term is present, the article which contains it will not be displayed as part of your results.
Proximity operators/connectors

In addition to the standard connectors described above, some databases also offer what are called proximity operators. These allow you to specify how close your search terms must be to each other. Proximity connectors can include such terms as WITHIN (within x words of), ADJ (adjacent to), NEAR, etc. Always check the Help or Search tips in the specific database to see if these proximity connectors are supported.

5. Limits and filters

Some databases support search limit filters, including date, age, gender, type of document, (e.g. peer reviewed), language or methodology, (e.g. empirical study or randomised controlled trial). They are useful for refining your search results.

However, it is recommended that you use these limit options selectively. It can actually be more effective to scroll through a larger number of results, viewing the abstracts and deciding if the reference is suitable, than relying on the multiple database limits do it for you.

Standard limits which should be used are: peer reviewed / scholarly (strictly speaking these terms are not interchangeable); published in English and journal articles (as opposed to other publication types). You may also wish to use a date limit if appropriate for your search.

RESULTS

Sorting by relevance (where available)

Many databases will automatically display your results in newest date order. This can be useful to find very recent material, but you may have to scroll through a large number of less useful items before you find material more relevant for your search topic. However, some databases have the option to sort by relevance as well as by date: those records which contain your search terms more prominently or more often, will be displayed at the beginning of the results list.

Abstracts

Your search words are not necessarily going to appear in the title of your article. Always check the abstract, as your keywords are more likely to be listed there instead. A short abstract will also help you determine how useful the article is likely to be.

Full-text and Find it
If the database can provide access to the full article, there may be a full-text link beside the record. If not, click on the **Find it** button located beside each record to check against the 20,000+ electronic journals in the Library’s collection to see if we have the journal available via an alternative source. If we do, a link will be provided.

**Document Delivery**
If the **Find it** button cannot locate any full-text, you can still obtain the article you want by requesting it via the online Document Delivery Service. This service is free.

**SAVING AND DOWNLOADING SEARCHES**

**Saving results**
You may wish to mark the useful references so you can download them at the end of the search process. Depending on your database, this may be a tick box to the right or left of each reference or possibly an “Add to Folder” link (CINAHL or Criminal Justice Abstracts).

**Full-text**

Remember that marking and downloading results refers only to the journal references NOT the full-text. Download any available full-text while still logged in to the database.

**Saving an active Search for re-use later**

If you don’t have time to complete your search, you may wish to save it so that you don’t have to start from scratch when you next log in. You will have to create a personal profile within the ‘My Research’ (or equivalent) section of the database to do this. Please note these personal profile details carefully. If you forget them, the Library cannot retrieve your searches for you.

**Search History as supporting evidence**

There is usually a separate Search History / Recent Searches function in the database, which will display the various steps and modifications you made during the search process. Here you can show proof that you have made appropriate use of the subject index (where available), connectors (AND, OR), brackets, truncation or wildcards etc. If you log out without saving or downloading your search history, you will have to do the whole search again.

**Note:** Printing off your abstract(s) is NOT the same as obtaining a search history.

**AND FINALLY...**

If you need help or wish to make any small group or one-to-one appointments, please contact Janice McQuilkin - Magee Library, telephone: 71675066 or email **j.mcquilkin@ulster.ac.uk**