

## Study Skills Series



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## Search the Literature in 10 easy steps

Information technology (IT) has been a key factor in helping improve the availability and accessibility of information. This is particularly beneficial for the busy professional wishing to keep abreast of current practice within their specialist field. However, whilst the volume of information available can be perceived as advantageous, finding quality articles which are relevant is often a challenge. This leaflet will provide you with the guidance you need to develop and implement an effective and efficient search strategy. This will allow you to obtain quality information without wading through 1000s of irrelevant articles.

### Types of literature

*Books!* Yes these still have a use - they are helpful in providing an overview of the scope of a topic, especially if you are unfamiliar with it. The Institute library is increasing its' access to e-books, please speak to the library staff about the latest acquisitions.

*Journal articles*—dozens of them! Most journals their articles are peer reviewed prior to publication to ensure they are of the required quality. The IHSCS has electronic access to many thousands of journals via EBSCO host. This type of literature has the advantage over books in that they are published in a timely fashion. The number of open access journals are increasing and are available 'on-line' free of charge.

*Official publications*— Most government departments have a designated website which permits access to current and historical publications. This is also true for most professional bodies, regulators, national and international organisations. Details of specific legislation is also accessible on-line; for Bailiwick of Guernsey legislation you need to go to 'Guernsey legal resources'

*Conference papers* — these may be published and are accessible **from** the website of the conference host or through electronic databases. Some are unpublished and are more difficult to obtain unless you have the contact details of the presenter. New ideas are often presented at conferences first and therefore this source of information should be included in your search strategy if you are to capture contemporary research and 'leading edge' developments.

### Steps 1-5 preparing for your search

1. Identify and define your topic. This may be dictated by an assignment task or a problem you wish to solve. Whatever the purpose of your search it is prudent to formulate a PICO question detailing the Population group of interest, the Intervention you wish to explore, the control or alternative intervention as a comparison (not always needed) and finally the Outcome of the intervention. Although this may seem very 'clinical' this structure is useful for most fields of interest. For example '*How does the restructuring of an organization (**intervention**) impact on the morale (**outcome**) of health care workers employed within it (**population**)?*'

2. Identify key terms/subject headings/MeSH terms. Having compiled a PICO question, you have already identified the sorts of keywords which you may need to use when searching the electronic databases. However you need to consider alternative terms which may be used by the literature to describe the elements of your PICO question. For example 'health care worker' could be broken down into 'nurse', physiotherapist etc. Sometimes individual databases will have specific subject headings related to your PICO, these also need to be explored. **For CINAHL these are subject headings and for Medline these are MeSH headings.**
3. Identify where you are going to search, Which data-bases are likely to yield the best results? What local, national and international organizational websites need to be searched to obtain relevant official documents and statistics? Which professional bodies have a stake in this topic area? Are there any open access journals relevant to the search? Will you include text-books? If so where will you search for them? The local libraries use Tallis as a cataloguing system which can be accessed via the IHSCS library pages. The British library have their own on-line catalogues accessible via their web page.
4. Make sure you have made provision for storing and indexing any literature you have obtained. There are many different ways of doing this, electronic storage is probably the most ideal in terms of saving paper and space.
5. Assess your ability to conduct electronic searching, be honest with yourself, if you are less than competent then either access one of the tutorials featured on the IHSCS library site or book an appointment with one of the library staff, who will be only too happy to help you.

### Steps 6-9, completing the search

6. Begin with a simple search using one main keyword, this will help you gauge the volume of literature there is on your topic.
7. Next perform an advanced search using the Boolean logic to make the search wider or narrower by linking key words and terms. Using AND will narrow the research to articles containing both keywords, OR will broaden it to include either of the keywords and \*can be used include the keyword with different endings i.e. special\* could be specialist or specialism. You can also use the field limiters to narrow the search to specific time frame, year, publication type etc.
8. Don't forget to search other sources, such as library catalogues, professional and governing body websites and free access journals available on-line.

9. Use a technique called Berry picking (Bates 1989) with the information you have obtained through your Search. This includes:
  - Footnote chasing or searching reference lists
  - Citation searching, who has cited the articles you have obtained?
  - Journal run, search through specialist journals
  - Subject searching in databases
  - Area scanning, using library classification system
  - Author searching

### Step 10 evaluate

10. Keep a detailed record of your literature search, this will act as an audit trail. When you have completed the search take time to critically evaluate your strategy:
  - Did you obtain a good volume of high quality papers?
  - Are there any potential gaps in the search?
  - How may the search have been biased?

### And finally—some top tips

1. Keep a print out of your search strategy or file it electronically.
2. Make notes about the reasons for selecting particular keywords or applying certain field limiters. This is important when writing a literature review.
3. If you are searching a field where there is a lot of literature, you may want to set specific inclusion and exclusion criteria to further sift through the results of your search. Again you need to be able to justify why you have set these criteria.
4. Scan the articles briefly to determine, relevance and quality. and whether they should be kept or rejected
5. Read the remaining papers more closely, this may take on average 1 hour per paper. Critically appraise the paper (please refer to the leaflet on critical appraisal).
6. Make note of the strengths and limitations of each paper, the methodology used and key findings. This can be entered onto a table or matrix.
7. Use highlighting pen or an electronic highlighter, if working off a computer, to identify the key themes arising from each paper.
8. Maintain an accurate catalogue of the articles and books you have included in your search to avoid duplication or omission of articles.

### References:

Bates (1989) *The design of browsing and berrypicking techniques for the online search interface*, available from <https://pages.gseis.ucla.edu/faculty/bates/berrypicking.html> accessed 14/01/19