1. Planning a Search Strategy

2. Why Search Skills are important

So obviously you’re going to need search skills for finding the information for essays, presentations and even a dissertation. But they’ll see you all the way through University and beyond.

These skills tend to be referred to as information literacy or sometimes digital literacy and they’re an important skill in employment too. A popular definition is the one on screen:

An information literate person knows when and why they need information, where to find it, and how to evaluate, use and communicate it in an ethical manner

This is something health professionals do throughout their career, whether it be rewriting guidelines, contributing to a research project or just sharing information with colleagues.

Everything in health is evidence based and so it’s important to be able to locate the right evidence to help support your decisions. Getting your search strategy right first time can take a lot of the work out of this.

3. The Problems

There can be a number of issues with finding information and the big ones are

The sheer volume of information on the internet. You can do a search on google and bring back millions of results. Some are good, some aren’t. It’s really difficult to sort through it and make sure you get the best results. Even though Google relevancy ranks, often advertisements make it to the top of search results.

If you are going to use something like Google for searching, you recommend that you use Google Scholar. You should get better results, more academic articles and you can customise it to set up full text from Edge Hill. Instructions on how to do that are in the blue Research skills booklet we gave you in the computer training a few weeks ago.

The other issue can be around the unfamiliarity with library resources. As I said, we gave you a tutorial on some of these a few weeks ago, but we concentrated on Discovermore and Cinahl and there are many more databases out there. At first glance, they can seem daunting and unfamiliar, so it’s important that if you do want to try a new database out, but you aren’t sure about it, that you come and speak to someone in the library. We can take a lot of the mystery out of searching.

4. Common mistakes

So, as well as the fear of using these resources, there are a lot of common mistakes people make when sitting down to use these tools. A big one is using the wrong database. If you are looking at the psychology around eating disorders, then using something like Cinahl is ok, but using something like PsychInfo, one of our big psychology databases will give you better results. Again, librarians can advise you on this sort of thing.

As well as that, not understanding how the databases work can sometimes make life harder. A lack of knowledge about how something works will always waste your time. If you can’t put limits on, then you’ll find it hard to narrow your results down. If you don’t understand how to make the database thesaurus bring up related terms, then you’ll struggle. If in doubt, either ask us or use the guide that comes with the resource. For Cinahl we have a handy, short video that explains how to search it, available on the EHU Health YouTube channel.

But the biggest mistake is failing to plan the search strategy! It’s important that you have a clear idea in advance what you are looking for and keywords you want to use to help you find those important articles. Taking the time to plan effectively, will save you time in the end.

5. Getting started

6. Understanding your question

So the best place to start is with your question or essay topic. Look closely at what you are being asked. Is there anything in it you don’t understand? If so, either check a subject dictionary – and you can get one online, you don’t have to go into the library – or ask your tutor to clarify. Make sure you are comfortable with what you are being asked to do.

Then define your information need. Do you need statistics, facts, current or historical information?

7. Identify phrases and keywords

So next you want to pull your question to bits and identify the main concepts. Keywords are vital in a good search – a few quick keywords will quite often bring back some useful results, but you might miss some really good ones and more than likely you’ll have to wade through a load of irrelevant results to get to what you need.

Ignore things like “discuss” or “analyse”, they won’t help you find anything relevant and are more of a guide to how your tutor wants you to write your essay.

8. An example!

So to help explain these ideas, I’ve created a sample question for you.

"Discuss the ethical issues related to genetically modified food in the human diet” – which I’m sure some of the nutrition students might have looked at.

There are 4 main concepts that can be broken down into keywords:

ethics

genetically modified food

human

diet

The human element is important as you don’t want to look at animals’ diets.

9. Identify synonyms and related terms

So developing your keywords gets you started, but it doesn’t end there. You want to think of as many keywords as you can for each term. Many of the databases will have a thesaurus, which is a list of the subject headings they use. Some of you might have seen this on Cinahl in the class a few weeks ago, where you could tick a box that said “select subject terms” and a list of similar headings to the term you’d used came up. Sometimes these can be very useful. Most databases will have this functionality built in somewhere, so it’s just a case of finding it. Discovermore doesn’t offer this, as it searches across a range of databases and so the list would be too difficult to generate and keep up to date, but it will sometimes try to suggest headings, a bit like auto complete, when you are typing things into it.

You might want to think about different spellings – notably American, as many of the database subject terms are American in origin. The example I’ve used here is Paediatrics, but there are variations everywhere, from Emergency Technicians, Paramedics to us, to acetaminophen, paracetamol to us!

Again, you might want to look at both formal and informal terms, so where we’d say heart attack, a medic might say myocardial infraction. Both terms will bring up quite different results and it’s important that you can see everything you need to.

Also, be aware of acronyms and abbreviations, such as NHS.

For the purpose of our essay question, we could have similar terms like:

ethics or morality

genetically modified food or GM food or genetic engineering

diet or nutrition or consumption

We’d leave human out of it for the time being, as there aren’t a lot of different words out there for it and also, human is one of the limits you can apply to the database.

I find the easiest way to construct this type of search is a mind map, with the question in the middle, the major concepts and main keywords just outside and then further keywords outside that again. It gives you room to expand your ideas and you can add things to it without messing it up. There are loads of software available for this. The University has a licence to one called Mindview, which is on some of the PCs, but you can get some great apps, or if all else fails, you can always grab some paper and pen!

10. Get searching

11. Select the right resources to use

So depending on what you need, you’ll need to look at different sources.

* For an overview of a new topic? Online encyclopaedias, or review articles in journals can help. Review articles just give a general impression rather than being very specific
* If you’re after the latest academic research? Recent journal articles will be more up-to-date than books. You can find these in the library databases. More often than not, this is what your tutor will have in mind.
* An historical perspective? Books can set out the development of a subject area and you can find these on the library catalogue, or try Google Books too.
* Media reports? Newspaper articles present contemporary perspectives and Edge Hill subscribes to a lot of different archives, including the tabloids as well as your more high brow ones! If you think back to the link between the MMR and autism and remember a lot of the stories published at that time. Or more general thyings like childhood obesity.
* What about official reports? British or international government reports, or those of other organisations such as the UN or NHS. Our useful websites page can get you started with that type of thing.

12. Create a search statement

The next thing you want to do is create a search statement and this is just basically putting your keywords into order and linking them correctly.

We use Boolean to achieve this, which is basically just AND, OR, NOT. 3 simple words!

When you use OR, you are linking words which are similar, so maybe ethics or morality. You want the database to pick up either of these words (A and B), so you “explode” or widens your results.

When you use AND, you are asking the database to bring results which include both the terms you specify, for example ethics AND GM foods. So, you’re looking for the narrow bit in the middle, the overlap between A and B. Using AND narrows your search.

The 3rd one is NOT and you would use this if you wanted to rule something out, so in our case we might say NOT animal and this would only bring back results for humans. Or you might want to rule out a specific drug. So you get B not A.

You can’t enter a question into the databases, it just doesn’t like it at all, so you need to get into the habit of using Boolean.

The other thing you can use to help you search databases is what we can truncation. And this is just substituting symbols for letters. So for example, a \* at the end of a word, will look for variations on the word, so chil\* will look for child, children, childhood and saves you putting all those terms in. Quotations marks round a short phrase like mental health will look for both words together, rather than separately. There are a number of little short cuts you can use and the online help for the databases can give you more help with this.

If you’ve done your homework with your keywords, you might find you have more than one statement, depending on how you put them together and how many you want to use:

ethics AND GM food AND diet

This is quite a simple statement, looking at one term per concept, whereas

(ethics or morality) AND genetically modified food AND (diet or nutrition)

Is more complicated and is using both AND and OR. The second search will probably bring back different results.

Depending on how you like to use the databases, you can either build an advanced search, which generally lets you put your concepts into different boxes or a basic search, where you will need to build up one concept at a time and then link them all together manually. The database will give you the option to use AND OR NOT in each case.

13. Start searching

You might want to start off with something broad like Discovermore and see what it brings up, or you might prefer a specific health database like Proquest Nursing or Cinahl. If you don’t like getting a lot of results back, you might want to use one of our smaller databases, such as Internurse. The Journals and Database page on our subject pages gives you an A-Z list and explains the main features of each, which should help you make up your mind.

If you need a report or guidelines, you might want to try our useful websites page to get you started. Be wary when using Google. You might get some good hits, but always evaluate the sites. The Research Skills booklet contains a test for doing this and there are also a few online resources for practice.

I’ll gloss over this part, as we covered it in your skills sessions a few weeks ago.

14. Evaluate your results

So if you have a list of results in the database, have a look through them and check how relevant they are. Most databases will let you hover over an abstract icon, that saves you going into each record separately and you can get a quick idea if you can use something or not. Your articles should have keywords in the main record, so have a look and see if there are any you can steal.

If you have too many results, it might be that you need to use narrower phrases, so Type 2 Diabetes instead of diabetes, or you may need to start using the limits, always start with language and date and work from there. It’s possible to get the results set down to something manageable. If you are really struggling, then pop into the Ask desk and see if a librarian can help with this.

If you have hardly any results, bring some broader terms, or maybe a different database. If this doesn’t help, you might have to re-evaluate your topic. Is your concept brand new? It might be that there isn’t a lot of published work on the topic.

15. Dos and don’ts

16. Dos

Decide in advance how comprehensive you need to be. You might be fine with Discovermore, you might need to search a few different databases. With a dissertation or research proposal, your tutor will want to see evidence you’ve looked in a few places and why.

Keep a record of your search terms or better still save your search. You can sign up to an account on Discovermore, which also works on Cinahl and this lets you save articles and also your searches. It saves you typing the same thing in time and again and if you have a methodology to complete, then you will need to provide evidence of your search anyway.

Use the online help – its really handy and explains all the concepts I’ve talked about here really well.

Use alternative spellings – especially American!

17. Don’t’s

Whatever you do – don’t mis-spell your keywords. It’s easier to do than you’d think, especially if its something tricky.

Don’t use vague keywords – diabetes will bring up 5 million hits on Discovermore.

18. Summing Up and help

So, this isn’t the end. If you are having any trouble at all – come and see a librarian or Iain if it’s the writing side of things.

We are here to help you get to grips with all this stuff and it’s a learned skill – we don’t expect you to understand it all overnight. You can book a 1-2-1 or small group session at the Ask desk or try checking out Ask Us, on our home page for any FAQs that might have been published.

Does anyone have any questions? I can answer them here, or you can speak to me at the end if you’d prefer,