

Database Searching Tips

1: Search Terms: Identify Key Concepts

Identify key concepts and terms by asking relevant questions about the variables that exist in your research question. Determine what concepts and terms you want to search for. There may be just one concept or, much more likely, several concepts that will need to be considered. Within each concept, you will need to determine appropriate words or phrases, including synonyms, broader terms, related terms, and narrower terms. Revise this list during the actual search process by noting and using subject headings that have been assigned to relevant books and articles.

Search Terms: Determine Key Words and Phrases

concept 1	concept 2	concept 3	concept 4
plagiarism	students	combating	technology
cheating	higher education	detecting	computer software
dishonesty	college	preventing	Internet
ethics	academic	deterring	term paper mills
	university	defining	turnitin.com

Table illustrates key concepts and terms related to topic area

2: Database Selection: Choices Available

Broadly, you can search three distinct places: library catalog (books, ebooks), databases (articles) and the freely available Internet.

Books searchable via library catalog are great sources of both general and highly specific information. Databases provide access to high quality, up-to-date information from respected publishers and publications. They provide sophisticated search capabilities and access in many instances to online full-text articles. General internet or Google searching is risky due to both quality and quantity of materials retrieved. For finding accurate, useful information quickly, database and catalog searching are superior.

Database Selection

Use Subject Guides ([Veterinary](#); [HSL Favorites](#)) to identify the most appropriate databases for your topic.

3: Start the Search: Start with a general search

If you start with a complicated search, you will probably retrieve a very small number of articles. You are much better off to start with a general search and then refine your search from there. For example, if you are researching various aspects of the subject of plagiarism, start with a simple search just on the term plagiarism. Enter this one concept and analyze results. Then ask yourself the following questions: how much information is available on my topic? are there better terms that I could be using? will I need to narrow or expand my topic?

4: Advanced Search

Nearly all databases have an advanced search option that lets you to do sophisticated searches by combining the various concepts you have already identified for your search. The advanced search mode will also allow you specify which fields you want to search, including author name, article title, publication title, subject, etc.

5: Subject Headings

Articles and books in library databases and catalogs are assigned subject headings by people who review each document. Each article or book is looked at carefully and then assigned one or more subject headings. These subject headings are selected from a specific list of possible subject headings. If a subject heading is used for one article or book on the topic, the same heading will be used for other articles or books on the topic. Most books and articles are assigned many subject headings.

You can determine relevant subject headings by finding an article or two that deals directly with your research topic. Then do a search on the subject headings assigned to those articles. You can use the advanced search mode to search for your terms in the subject field.

Find other terms

Plagiarism may be listed as a subject heading, but other subject headings listed (such as cheating, ethics, honesty and dishonesty) could also be relevant. Each database assigns its own subject headings, so there is no guarantee that a subject heading in one database will be the same heading used in another.

6: Boolean Operators: AND, OR NOT

When you want to combine search terms, you will need to use what are called Boolean operators or connectors. This is best done using the advanced search mode. You need to separate your search statement into concepts and enter them into separate search boxes. Use the search terms and subject headings that you've already identified.

Search Terms: Concepts			
concept 1	concept 2	concept 3	concept 4
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Boolean: Separate your Search into Concepts

For example, if you are researching ways to combat plagiarism, you need to split your search into two concepts: combat and plagiarism. Next, you need to connect these two terms with a Boolean operator. Using the operator **AND** will retrieve articles that mention both terms somewhere in the article. Using the operator **OR** between the two terms will retrieve articles that mention **either term**. In this case, **AND** is the appropriate connector because you want to retrieve articles that address both concepts, combat and plagiarism. The use of **AND** generally will retrieve a smaller set of results.

Use of Boolean operators allows you considerable flexibility in your search. As another example, if you wanted to retrieve articles that dealt with either plagiarism or cheating, then the appropriate Boolean operator is **OR**. The search plagiarism **OR** cheating will retrieve articles that mention either term. The use of **OR** generally will retrieve a larger set of results. **OR** is especially useful when you are searching with terms that are synonyms or that deal with the same basic concept. Using the **OR** in your search will retrieve articles that contain any of the synonyms that you use.

If you wanted to **exclude terms**, you would use the Boolean operator **NOT**. For example, if you were interested in the subject obesity, but not interested in how fast-foods relate to obesity, you could exclude all items that have the term fast-foods by searching obesity **NOT** fast-foods.

7: Truncation

Truncate search terms to retrieve all variants of a term. Truncation symbols vary from database to database. Examples include: *, ?, !, % and \$. For example, if you search on the term plagiar* in ProQuest, you will retrieve articles that contain any words that begin with the letters plagiar, including: plagiarism, plagiarize, plagiarizing, plagiarized, plagiarizer, plagiarizers, plagiarist, etc. Using the truncation symbol will allow you to broaden your search to include materials on any

variant of a term. Most database search interfaces are not sophisticated enough to search for all variants of a term automatically.

8: Limiting

Most databases have limiting features that will let you focus the results of your search. You may be able to limit your searches to retrieve only scholarly or peer-reviewed articles. You can also limit to particular date ranges or particular journals. Many databases provide their own unique limiters, which allow you to limit by intended audience, item type (peer reviewed, journal or newspaper article), language, country of publication and more. Limiting your searches will allow you to narrow your search, resulting in a smaller list of more relevant materials.

9: Adapt the Search

Narrowing

If you are retrieving too many articles, focus your search by adding terms, limiting terms to particular fields, or by limiting your searches.

Expanding

If you are retrieving too few articles, expand your search by removing terms or searching for terms in keywords or full-text. Consider adding synonyms or similar terms to your search if the ones you are using aren't very effective.

Be Flexible

Above all, be flexible in your searching. If one term doesn't work, try a different one. Approach your topic using as many search strategies as you can think of.

There will never be one perfect search for your topic. It may take dozens of searches to retrieve all the necessary information.

10: Web Concerns

No Subject Headings

Encountering useless web pages is only one problem in using the Internet for research. There are many other major issues. One problem is that nearly all search engines lack the sophisticated search capabilities that both library catalogs and databases provide. Because of this, searches will often return results of thousands and thousands of web pages. You will get better search results using subscription databases and library catalog rather than Internet search engines such as Google or Yahoo!.

Questionable Quality

The quality of information on the web is always in question. In addition, there is an inordinate amount of repetitive, superficial information, often of a promotional or anecdotal nature. You must also be careful to avoid commercial web sites that are trying to sell a product or service. The bias or slant of web sites must be considered.

Questions to Consider

Searching the web is very time-consuming because you need to consider many issues before using a web page in your research.

- Is the information from a respected and reliable source?
- Is the page trying to sell you something?
- What are the author's credentials?
- Why was the web page created?
- Is the information accurate? Biased? Outdated?
- Are sources clearly cited?

Use Only When Appropriate

Only after answering all of these questions can you be sure that your resource is appropriate for a research paper.

Stick to Databases

However, by searching only subscription databases and limiting your search to scholarly or peer-reviewed sources, you can virtually guarantee that all materials retrieved will be appropriate for a research paper.

Veterinary Medicine Guide

<https://www.library.ucdavis.edu/guide/veterinary-medicine/>

Health Sciences Libraries Favorites Guide

<https://www.library.ucdavis.edu/guide/health-sciences-libraries-favorites/>