Become Information Literate

7. Evaluate your sources

1. Analyze your topic

2. Create a search strategy

3. Choose your search tool(s)

4. Search!

5. Evaluate the result

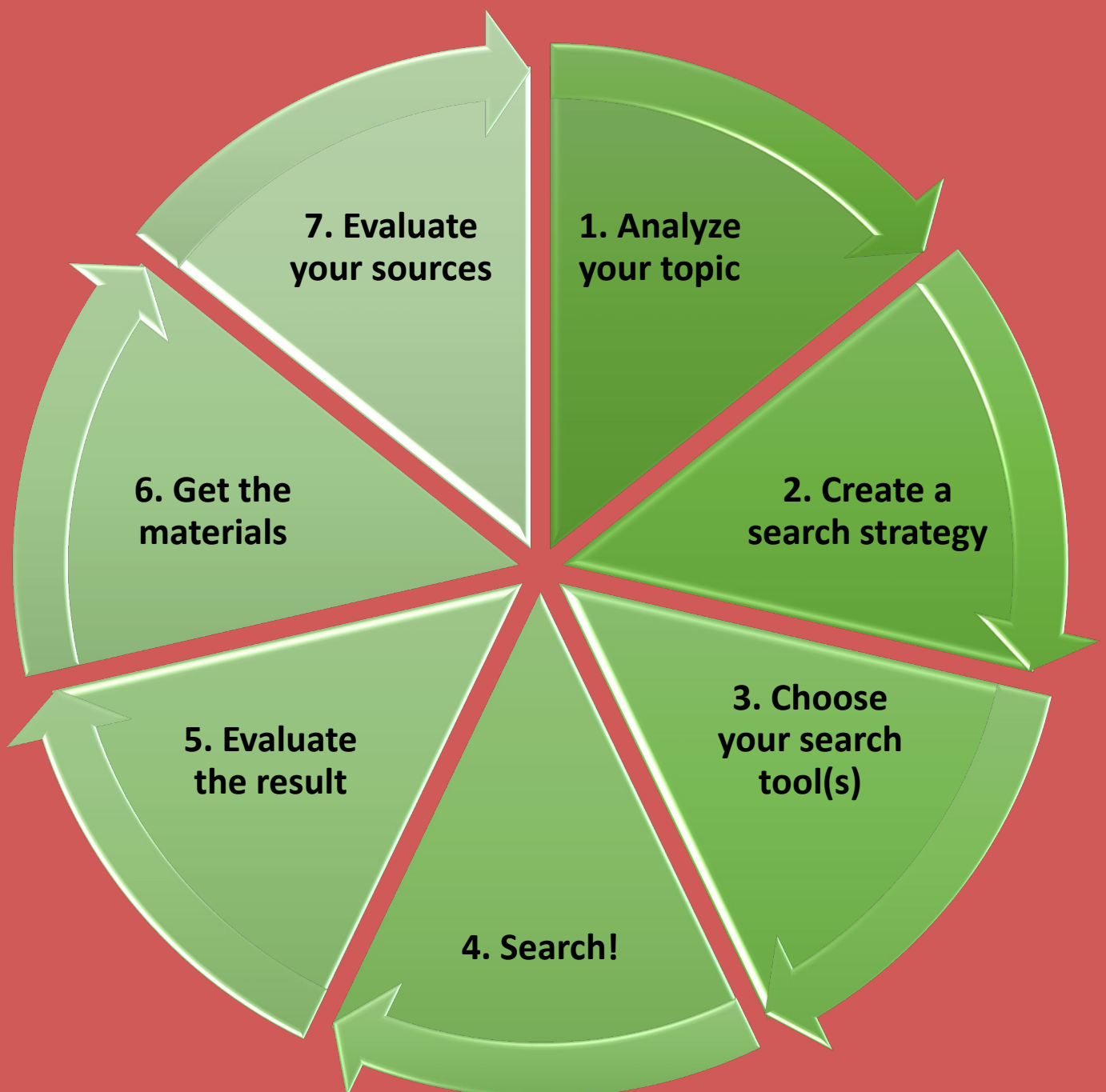6. Get the materials

LEARN INFORMATION LITERACY

During your study, you will have to write many different kinds of papers and assignments. All of them must be based on materials of various kinds. You can use this compendium when you want to start searching for materials, and this is where information literacy will be important to you. Basically, information literacy means that you know how to:

- Navigate and find your way around a given system of information
- Evaluate and identify the kinds of information that are relevant to your needs, no matter what types of information they are or which media they are found in.

Your main challenge these days is not finding information but selecting the relevant information for your paper. Therefore, it is a good idea to learn some techniques which may help you get a **better** search result **faster**.

Information searching can be thought of as a cycle which is time-consuming and may have to be repeated several times while you work on your paper, but it will help you get more insight while the process is going on. There are various methods of searching for material for a paper. In this compendium, one of them will be described, namely the building block search strategy.

If you have any questions to this compendium, or any suggestions for making it still better, please contact the library. Our email address is infosal@bib.sdu.dk.

1. ANALYSING YOUR TOPIC:

Before you really start working on your paper, you can supplement your background knowledge with information from sources like reference works, bibliographies, databases and Geneativ AI (GAI).

To ensure you always have the most up-to-date information about Generative AI, we recommend that you read more about SDU's policies and the Library's best practice advice in the Library's AI Guide – visit https://libguides.sdu.dk/ai or scan the QR code.

"Quick" information can give you an immediate overview of your topic. Definitions of words and concepts can often be found from a quick Google search, or you may take a look at Wikipedia or other online reference works. Don't forget that printed reference works may be good sources when you want to get an idea of the central concepts in your field.

To do a competent information search, you must know <u>what</u> you are looking for!

If your quick searches have shown you that you need to change your problem formulation or your topic, you must consider again which aspects of the problem (or topic) to focus on in the paper. You will have to decide what to include in the paper and what to leave out.
You should also consider how much time you have and how long the paper is going to be. Don't forget to speak to your supervisor about having your problem formulation accepted, and about other issues that may arise during your work.

2. MAKING A SEARCH STRATEGY:

When you have a basic idea of your topic, it is time to make your search strategy and/or select the relevant search tools for your purpose.

Making a search strategy means preparing your search, so that you get the greatest possible chance of finding exactly the relevant information for your topic or your problem formulation.
The way you have formulated your problem should always determine the process of information searching. This will help you avoid wasting your time on related topics, once you have decided that they are *not* what you are going to write about!

Things to be considered:

- What do you know about the topic already, and what further knowledge will you need in order to answer the question you have chosen to write about?
- Which kinds of information and which kinds of material are most important to you? Do you need facts and/or mainly background information from books, or is the topic so new and so little researched that it has only been dealt with in reports, articles in newspapers or journals, or is it only known to people at a research institution as yet? Consider the time frame you are interested in: if your topic is a quite recent one, you don't need to look for documents going back to e.g. 1962.
- Which languages do you read? Most of us probably won't need articles written in Chinese, and the main language of research databases is English. Therefore, you will often have to **translate** your search terms into English.

Step-by-step search strategy

1. **Find the right search terms (key terms) for your paper**
   Think about synonyms (sport, athletics, exercise), more general terms, more specific terms (sport/tennis, sport/badminton)
   Be creative
   Brainstorm: find as many words as you can
2. **Structuring your search: which terms are the most important?**
   Find a few key terms, maybe three or four
   Divide the rest of your search terms into general and specific
   Find more synonyms and related topics (if necessary)
3. **Choose your search tool(s)**
   Use the library's website and personal help to guide you to the right databases
4. **Make a search strategy**
   Which words are you going to try first?
   And what will you use those searches for?
   Which other words are you going to try, and how?

If you cannot explain what the searches will be useful for, you may not need to make them at all.

Boolean operators
Searching for more than one word at a time can be an advantage. You can combine your search terms by using Boolean logic. Boolean logic consists of three operators: **and**, **or**, and **not**. **And** and **or** are the ones that are used most often. If you combine your search terms with an **and**, the result of your search will be narrowed; if you use an **or**, it will be widened. Databases often combine your search terms with **and** automatically.
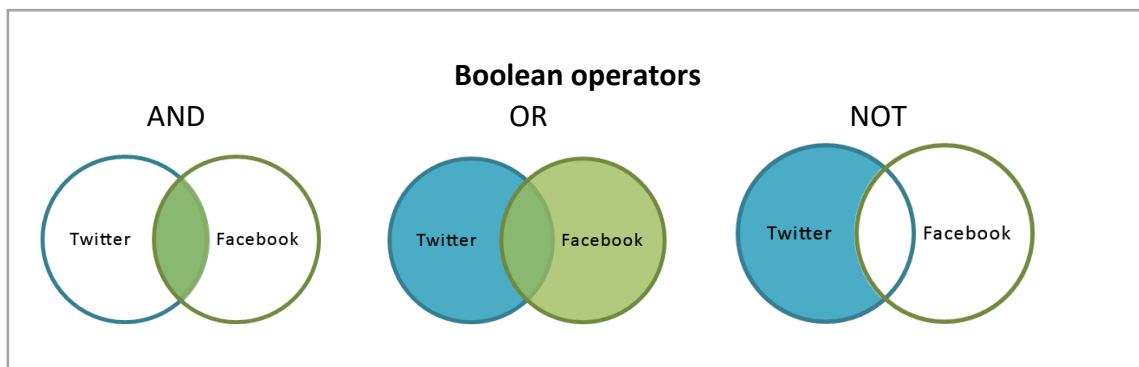
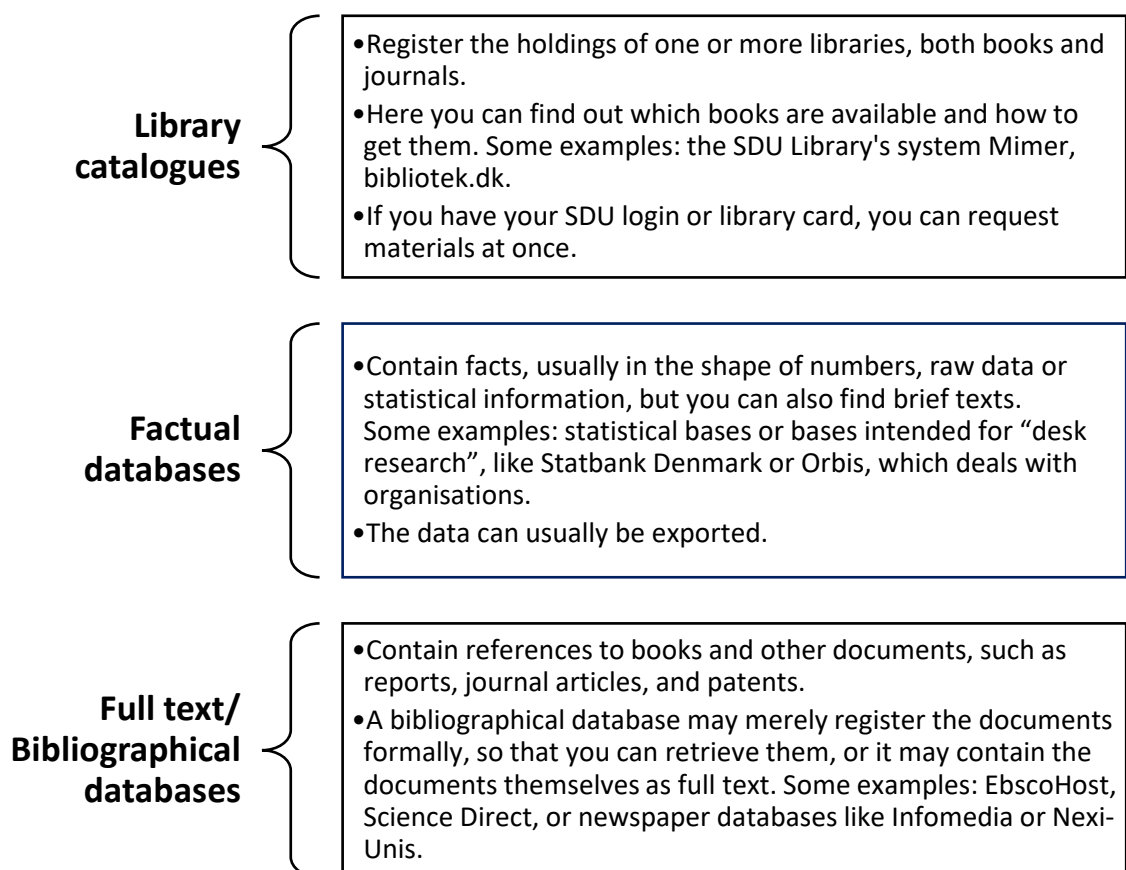Your search result corresponds with the colored areas.

Truncating

You can use truncating in order to include various endings of search terms in one search. When you truncate, you search for the root of the word plus the various endings that may be added to it. For instance, if you search for engl*, you search for the words England, English, Englishness etc.

The sign used for truncating is often * or **?**. You can look in the help files of databases to see which sign has been chosen for each base.
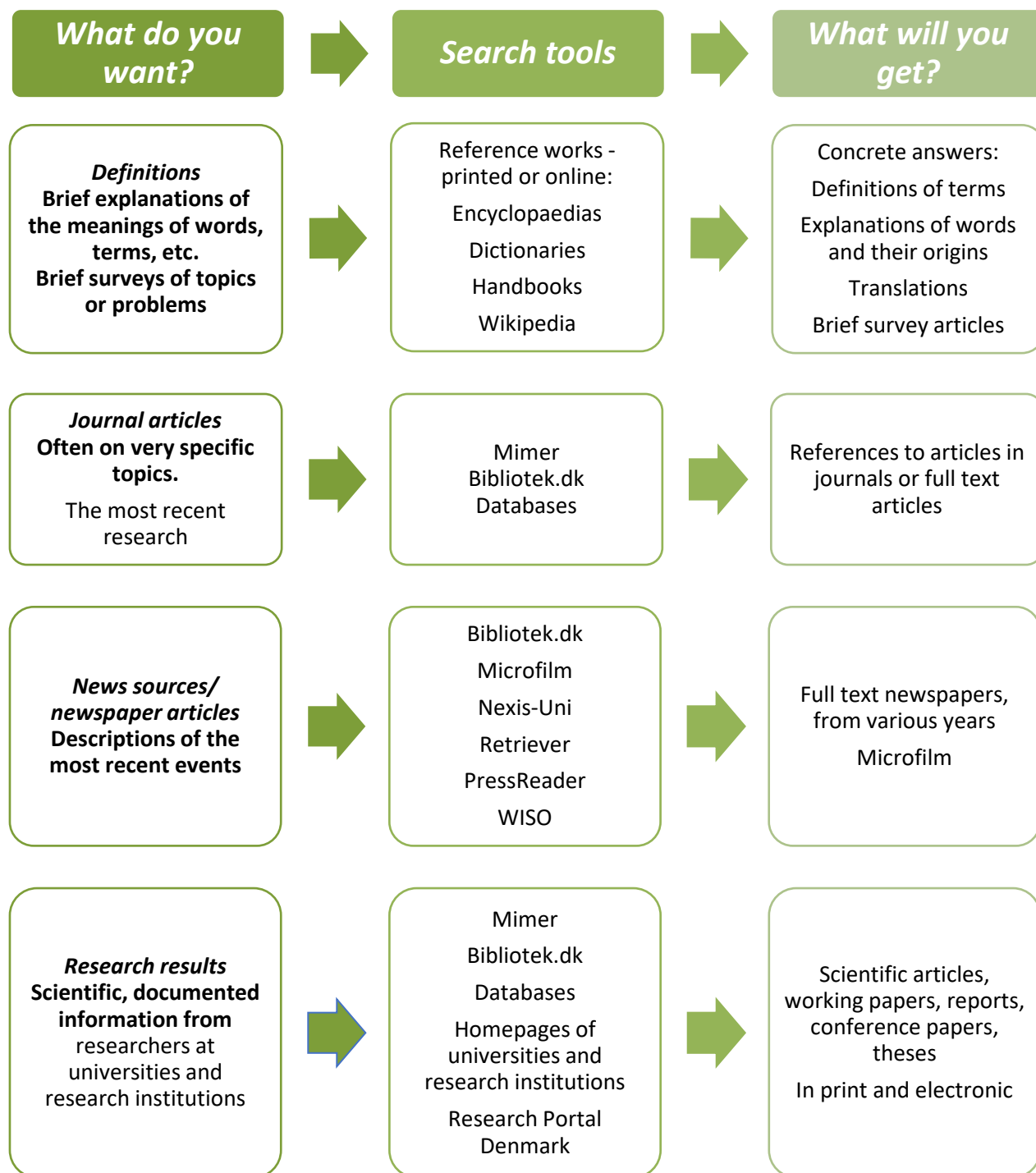
3. CHOOSE THE RELEVANT SEARCH TOOLS

There are many kinds of search tools available. For instance, both Google and Wikipedia are search tools. The library's search tool Mimer and the other library databases are other kinds of search tools, where you may find material which is not in the public domain. There are many different types of databases, each with its own kind of information and special focus:

Library catalogues
- Register the holdings of one or more libraries, both books and journals.
- Here you can find out which books are available and how to get them. Some examples: the SDU Library's system Mimer, bibliotek.dk.
- If you have your SDU login or library card, you can request materials at once.

Factual databases
- Contain facts, usually in the shape of numbers, raw data or statistical information, but you can also find brief texts. Some examples: statistical bases or bases intended for "desk research", like Statbank Denmark or Orbis, which deals with organisations.
- The data can usually be exported.

Full text/ Bibliographical databases
- Contain references to books and other documents, such as reports, journal articles, and patents.
- A bibliographical database may merely register the documents formally, so that you can retrieve them, or it may contain the documents themselves as full text. Some examples: EbscoHost, Science Direct, or newspaper databases like Infomedia or Nexi-Unis.

According to what your topic is, you must consider which types of material you want. Then you will have to select the most relevant search tools:

What do you want?	**Search tools**	**What will you get?**
Definitions **Brief explanations of the meanings of words, terms, etc. Brief surveys of topics or problems**	Reference works - printed or online: Encyclopaedias Dictionaries Handbooks Wikipedia	Concrete answers: Definitions of terms Explanations of words and their origins Translations Brief survey articles
Journal articles **Often on very specific topics.** The most recent research	Mimer Bibliotek.dk Databases	References to articles in journals or full text articles
News sources/ newspaper articles **Descriptions of the most recent events**	Bibliotek.dk Microfilm Nexis-Uni Retriever PressReader WISO	Full text newspapers, from various years Microfilm
Research results **Scientific, documented information from** researchers at universities and research institutions	Mimer Bibliotek.dk Databases Homepages of universities and research institutions Research Portal Denmark	Scientific articles, working papers, reports, conference papers, theses In print and electronic

If you are in doubt which database(s) to choose, you can use our list of databases indexed by topic, or look at the study pages. They are all found on the library's homepage.

The databases that you access via the library are all quality controlled, so you can trust the information you find there.

4.   SEARCH TECHNIQUES

Your choice of search strategies, tools, and techniques often depend on each other. Knowing about search techniques can be a help, as various techniques will suit various purposes. Certain search tools will give you possibilities for using certain search techniques in the best way for your purpose.

Take a look at the way the topics are structured in the individual databases, and at the help file. Check whether the database has a thesaurus of subject terms, etc.

Note: it is not a question of finding as much information as possible, but of finding exactly what you want.

There are various kinds of **search techniques**:

Quick and dirty:
This type of search is easy and is often used at the beginning of the process. Search for some of the central concepts that you already know to find definitions and get inspiration for further searches. This kind of search is also useful if you are uncertain whether the database or source you have found really covers your topic.
This is the typical way to search Google.

Fact searching:
This is what you use when you want answers to concrete questions like: Who invented the steam engine? When was NN born? For how many hours a day do the Danes watch TV? For this kind of thing, encyclopedias, statistical reference books, and other reference works will be useful – some of them are available online. Make sure that your information has been verified! Wikipedia is not usually considered documentation enough on its own. Check your information elsewhere as well.

Chain searching:
In some connections, this is called Pearl Growing. Chain searching is a method of searching for literature in which you use a document, a topic index, a bibliography, or citations from a book or an article in order to find other relevant sources and documents. A new layer is added to previous ones, or a chain is followed from one link to the next.

Building block search strategy:
You can use this method for investigating more complex questions or problems. Divide your topic into aspects or blocks, write down the search words for each, search each block on its own, and then combine the blocks or aspects. The building block strategy is useful to know for various databases, and you can read more about it in the next sub-section.

MAKING YOUR TOPIC EASIER TO SEARCH USING THE BUILDING BLOCK STRATEGY

(Download a empty scheme in PDF at www.mitsdu.dk/library/block)

Topic / problem:

Describe briefly what your paper will be about. This may give you the terms for your literature search

Example: Students' drop-outs at universities and the initiatives to prevent it.

Search terms:

Write down your search terms. Think of synonyms, more specific or more general terms. Translate them to the language the databases use, if necessary.

OR

Block 1 Search terms/synonyms	Block 2 Search terms/synonyms ←→	Block 3 Search terms/synonyms ←→
Examples:	**AND**	**AND**
Dropout *Drop out* *Drop-out* *Defection*	*Universit** *Higher education* *College**	*Initiative* *Effort* *Action*

Search tool(s):

Write your own databases here:

E.g.: The Library's resources Bibliotek.dk Databases according to topic etc.	

Search!

5. EVALUATING YOUR RESULTS

Don't forget: the important thing is not getting as many results as possible but finding the *best* documents for your purpose. The aim of searching is to get **relevant** and **accurate** results. If a search gives you a great number of posts, some of them may simply be "noise". And don't forget the question of time, if you only have a couple of weeks for writing the paper.

Look at the results of your search and ask yourself:

- Did you find what you expected to find?
- Do the results have the quality you want?
- Are they useful for your paper?
- Is the amount right for the length of the paper and the time you have?

If you get too many results, you can try:

- Combining more words with AND
- Using phrase searches (exact phrase)
- Using more specific terms
- Using the structure of search terms found in the database
- Searching for material from specific years, in specific languages, etc.
- Excluding terms with NOT

If you don't get enough results, you can try:

- Truncating (use * or **?** at the end of the word in order to search for more forms at the same time)
- Using more general search terms to get a wider field
- Combining the key terms in a different way
- Splitting up composite words
- Search synonyms, using OR

NB: all databases offer search tips in their help files, and most of them have online tutorials. It is a good idea to look at them *before* you start searching.

6. GETTING YOUR MATERIAL

When you are satisfied with your search result, you need to get the relevant material.

Some of the material you need may not be immediately available. It may not be online and may have to be borrowed from another library. Please note that this may take some time.

If you have found your material via our catalogue, you can request it in the catalogue. You can also make requests in Bibliotek.dk. When the material is ready for you, you will get an email message.

If you have found articles via our databases, you can often find them online. Use the SFX button, [LINK] which will help you either with getting online access, or requesting the material from the library, via our request form.

> **You have electronic access wherever you are!**
> As a student, you have **remote access** to online books, journals and newspapers from your home.
> Use your SDU login.

If you are in doubt how to get the material, you are always welcome to contact us.

7. EVALUATING YOUR MATERIAL AND YOUR SOURCES

Evaluating your materials:
When evaluating the materials, you have collected, consider whether you have got what you need. You can do this by looking at lists of contents, introductions, or abstracts. Is the information reliable, and does it answer your needs?
Then you should consider whether you may find more material elsewhere – and is it worth your while?

Be critical:
Being critical of your sources means investigating and evaluating the cognitive authority and trustworthiness of information sources. Looking critically at an Internet source is not basically different from looking critically at other kinds of sources. However, the fact that publishing on the Internet is so easy calls for a higher degree of critical thinking. Anybody may publish anything, while material in other media will typically be evaluated by other scholars or by editors before it is published. Below you will find a description of the contextual technique of criticism, which has three elements that you may use on your sources.

Use quality-controlled sources
The library provides paid access to a number of journals and databases, where the quality control has already been done. If you use these sources, you won't need to check them yourself. But there may be cases where this type of source is not enough, and then you will have to look at sources without quality control. Here you can use these two methods:

Comparison

Compare the information you have found with one or more other sources. These may be newspaper articles, books, peer-reviewed materials or other websites. Such a comparison may show you areas of controversy which you should pay particular attention to. Some sources may contain unique information, which cannot be found elsewhere, and may be very important because of that.

Verification

Verifying information is a method which is used in many other connections. It means always getting confirmation from other sources for the information you find in non-quality-controlled Internet sources. It can be a good idea to look for sources from various parties with different interests; or even better, for sources that have been through quality control.

Use a reference management tool

Learn how to use a software tool that helps you construct your list of references or your bibliography correctly – it will save time!

As a student at SDU you can download EndNote from itslearning, and you can learn about it from the EndNote tutorial on the web.

There are other reference management tools you can use, like Mendeley, Zotero, or RefWorks.

Citing this as a source:
University Library of Southern Denmark (2025). Learn Information Literacy, Version 7.

8. INFORMATION LITERACY TAKES PRACTICE

Searching for information is a cyclical process. You should expect to do searches again several times: your insight into your topic will grow and change while you gain more knowledge about it. It is never too soon to start searching for material for your paper.

Learning information literacy takes practice. But if you think consciously about your **search strategy**, consider your **search technique**, and choose the right **search tool** for your purpose when you start your paper, information literacy will end up by becoming a natural part of the way you solve problems and tackle assignments, and you will learn how to:

- Navigate and find your way around a given system of information
- Evaluate and identify the kinds of information that are relevant to your needs, no matter what types of information they are or which media they are found in.

We hope that this compendium has helped you in your search for literature for your paper.

If you need more help, you are always welcome at the library. You can find our contact details at www.mitsdu.dk/library.

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www.mitSDU.dk/library**