

# Literature and Information Search for Your Paper

Chapter 5 from the book:  
Lotte Rienecker and Peter Stray Jørgensen  
with contributions by Signe Skov

The Good Paper - A Handbook for Writing Papers in Higher Education

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## 5. Literature and Information Search for Your Paper

Having good knowledge of literature, data and material is an important part of becoming a qualified professional with a higher education. A great part of writing a good paper is your choice of literature and the way you use it. We therefore recommend that anyone writing research papers must have or acquire basic knowledge of conducting information searches at the library in order to be properly equipped to search for subject-specific literature when necessary. The resources for this can be found at the end of this chapter.

To write a research paper, you must be able to conduct independent information searches. You need to know:

- Which subject-specific literature, journals and portals, etc. your research library has access to.
- How the information specialists, librarians, your supervisor and other teachers can help you.
- How to conduct searches using Google and other search engines.
- How to decide which literature to include and exclude on the basis of your research question, search strategy, general knowledge of source criticism and recommendations from your supervisor and institution.

It is also wise to set deadlines and set aside time for the different phases of the information and literature search (e.g. for data collection, documentation, etc.). Finally you should set a deadline for the entire literature and information search for your paper – and stick with it.

Literature and information searches can be conducted on several levels, all of which you must acquaint yourself with. Every time you advance in your studies (BA, MA, dissertation, PhD), your searches must similarly be conducted on a higher level. You should take part in any relevant courses on literature and information searches, information handling and information competencies offered by your research library.

## **Basic knowledge of searching for and handling information**

A good place to start acquiring basic knowledge of information searches is by taking the research libraries' "UB-test"; UB-testen.dk. You can test your basic knowledge of handling academic information in 10 minutes. On stop.plagiat.nu, you can test your knowledge of how to make correct references and literature lists. If you can answer all the questions in these two tests, you are already well acquainted with many of the basic skills required, and it may be enough for you to simply skim this chapter and chapter 7, and focus on what may be new to you.

## **The parameters of literature searches for papers**

You probably already have some knowledge of the literature from the field in which you are writing your paper. You will likely have to include some of the required literature from your programme of study, and you will build upon the course literature and your teacher's/supervisor's recommendations. You must be aware of the following parameters:

- What is the core literature of your field – is there some literature you absolutely must read regardless of when it was written? You can hardly write about nuclear physics, for example, without reading (something by or about) Niels Bohr or about psychoanalysis without knowing or reading (something by or about) its important figures. There may be obligatory literature you must be familiar with, perhaps background literature or broad encyclopaedic works' treatment of the material.
- When is the paper's deadline (how much can you actually read/skim)?
- Has your field/supervisor made demands on the literature? Amount, time period, source types, language, primary and secondary literature? These requirements can often be found in the curriculum.
- How accessible is the literature? Will it take long to acquire?

It will always be necessary to compromise between the ideal literature study and the practical possibilities and time limits. Year for year, more literature is published, and old material does not (officially) expire because new material emerges.

## How much literature should you read?

You can get an idea of the expected extent of your literature study by consulting the bibliographies of fellow students' papers.

Remember you will not be assessed based on *how much* you have read but rather on your paper, i.e. your written presentation of the connection between the literature and your research, and how you have used what you have read. Therefore, it is often more sensible to prioritise your own writing, rewriting, structuring and editing. It is better to write a good paper on the basis of few texts, than a poor, last-minute paper based on many texts. The important thing is that your *selection and application* of literature is substantiated and suitable.

## Time frame for the literature search

The time frame for searching for literature includes (at least) two important milestones:

- All of the actual literature searches you wish to carry out, perhaps with help from your research library.
- Supervision regarding your literature search or other forms of feedback about your literature from your group/class/opponent group, etc.

### Activity: Set a time frame for your literature search

- Check the requirements for the type and extent/scope/amount of literature for the paper in question
- Make an appointment for getting help with your search in good time
- Set aside time (days) for searching for information, downloading/ordering literature and reading abstracts
- If you are writing a longer paper (i.e., at least 15 pages), set aside time for a number of separate information searches
- Set a date for talking to your supervisor about your literature search and for presenting a search strategy/bibliography to your supervisor
- Set a deadline for collecting information and gaining an overview of literature as early as possible in relation to the deadline for handing in your paper.

Searching for and reading literature must be project managed. Literature searches can become a never-ending task as research literature is rapidly expanding.

## Too broad for a narrow search – before and after formulating your research question

If you have chosen a topic, but still lack a focus/research question, your initial literature search on the topic is for finding out:

- what material there is
- what it involves
- whether it looks interesting
- whether it is obtainable
- whether your choice of topic is justified by the literature
- what others writing about the topic have focused on – and what they have not focused on.

Expect to have to conduct several information and literature searches throughout the writing process:

- Firstly, you conduct a broad topical search, then you formulate a research question on the basis of which you can conduct a narrower search which in turn allows you to narrow down your research question further, etc.

### Preliminary searches and reading

When reading about a field you want to write about, the first things you read may be overview literature: Handbooks, encyclopaedias, surveys, subject-specific journals, websites with resources, articles, conference presentation, researchers' websites and popular works. These can all help give you an overview of “the state of the art”. You will often need to qualify understandings, directions, important figures, etc. before focusing on particular contributions to the larger picture. You must consider what you can write on the basis of a general overview of what has been written and more in depth knowledge of (a selection of) what is relevant. For this reason, even a perfunctory inspection of titles and skimming of abstracts is highly valuable to the writer, as these provide a sense of what has (not) been written: Shortcomings, gaps and inconsistencies.

While reading, you work towards identifying the texts that will form part of your self-chosen curriculum as well as how you can use them in an appropriate context – your own research and research question. When you can write a research question (the first being temporary) and perhaps fill out (parts of) a pentagon, you will be able to conduct a purposeful literature search. A research question that forms a good basis

for a literature search includes field terms that can be used as search terms. Everyday words will not result in a delimited, subject-specific search. Thus, the concepts and field terms used in your paper are crucial to your literature search.

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**Activity: You paper's keywords**

Write down the most important (3-5) keywords (concepts) representing your paper's disciplinary approach. Regularly check whether the most important keywords change the more you read.

## Your paper's relationship to the literature on the topic

As the literature in most fields is abundant and rapidly increasing, no students are expected to know or even to have read abstracts of *all* the literature within the disciplinary scope of the research question. But how is it possible to discover gaps in the literature, whether something has not been examined sufficiently, or needs a new angle, etc.?

To get a sense of what the field's literature contains/does not contain, you must complete one or more of the following activities. You must:

- make sure your knowledge of the field's literature is qualified by consulting your teacher/supervisor/other people in the field as they will know what characterises the literature within their main area of teaching
- systematically search for and read abstracts
- limit yourself to small, delimited fields, so the amount and content of publications become manageable
- limit yourself to very specific time periods ("within the last year only this amount of literature has been written...")
- limit yourself to using literature from a specified language area.

The benefits of acquiring in-depth knowledge of a very delimited field of literature are that you will be able to gain an overview and better position yourself in relation to a small, delimited field. Insofar as you have chosen your own research question and delimited your searches, you decide what to read and include in research papers and projects – except from the possible core literature of some fields, which you are required to read as it forms part of the field's traditions, methods, state of the art, central ways of thinking and similar.

## Literature and information searches on the basis of a (filled out) pentagon

If you have filled out a pentagon model of *your own research*, you can gain an overview of which literature you already have and which literature you still need to find and therefore search for. By writing the names of the most important sources you have found in a pentagon model, you will be aided in documenting your paper's guiding principles.

Especially three kinds of literature/information are relevant to a paper:

- Literature – and all kinds of material and informations, e.g. visual and numerical information – *the object of research* (the 3rd corner of the pentagon).
- Literature about theories and concepts *for carrying out the research* (often subject-specific, the 4th corner of the pentagon).
- *Methodological literature* (often not subject-specific, also included in the 4th corner of the pentagon – if you employ a named method such as interview, discourse analysis, actor analysis, participant observation, etc. in your paper, your bibliography should include specific literature about the method).

Literature that treats the research question itself (corner 1) will

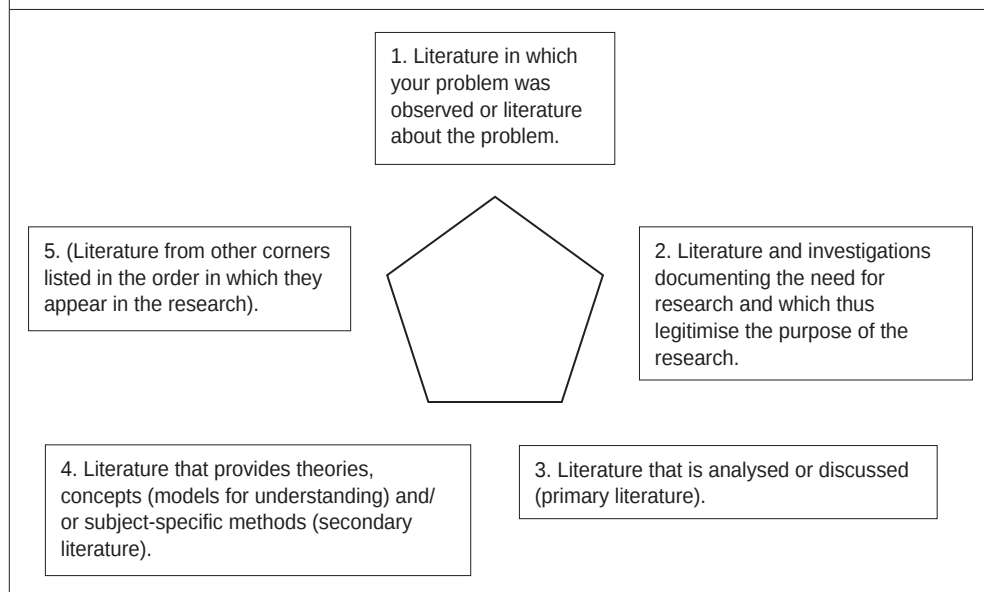
- either not exist (which is why you have a problem to research)
- or be literature wherein the problem can be observed
- or be literature on which you can base a discussion (for example, if the problem consists of there being different ways of answering the research question).

In corner 2, you may find sources that document the need for the research, e.g. prove that there is a problem that needs to be researched.

Corner 5 (research design) may mention sources from other corners in the order they appear in, in the paper. See also p. 180 in chapter 7 “Sources in Your Paper”.



### Activity: Insert your paper's literature into a pentagon model of the paper's literature



Your paper will not necessarily include literature as the object of study (corner 3).

### Are there “literature gaps” in the pentagon?

When placing literature into the pentagon model, you will find out whether you lack literature in one or more corners, or whether the current literature is insubstantial and you therefore must keep looking. In this case, you can base your search on the different boxes in the model: perhaps you need literature about your object of study; about others' research; about theories; about the field's historical development; about the field's rules and regulations; or about the method(s) you are planning on using.

### Planning your literature search

We suggest that you carefully plan your literature search:

You will need to fill out a form (as the one below) to:

- consider what you are searching for – before sitting down in front of the computer to use a search engine
- present your own suggestions to your supervisor or information specialist and for them to help and supplement your own ideas. If you ask for help with your

literature search at your research library, they will enquire about your research question. You might be told whether it is suitable for searches or needs to be combined with a search term to narrow it down

- document how you have conducted your search. Your literature search is an important part of your method; therefore you must in principle and ideally be able to account for your literature search method and what you have chosen to include and exclude.

<b>Activity: Fill out a literature search form:</b>	
Literature search for paper:	In field:
Research question:	
Central concepts (combine with theorists):	
Delimitation, e.g. time limit:	
Desired document types (books, articles (scientific, scholarly, popularising, news-), websites, scrolls, etc.):	
Language (English, Nordic, etc.):	

## How to search for literature – search methods

There are several search methods for finding literature. The three fundamental methods are called: *chain search*, *systematic literature search* and *random literature search*.

### Chain search

A chain search consists of finding suitable literature by letting one text lead you to the next, which leads to the next and so on. The strength of the chain search is that it leads from one good reference to another, and you will be able to follow the development of arguments through your literature search. Its weakness, however, is that you might lack references that present different understandings or raise objections to the text that started the chain.

It is often best to start with the newest secondary literature by:

- reading the latest issues of relevant journals
- finding articles about a similar topic to your own
- skimming it to see whether other, usable secondary literature is referenced
- obtaining these texts. If any of them are interesting in regards to your paper, continue this procedure using them.

Especially pay attention to whether the texts use different concepts and terms than you. You can use these terms in your further search.

In some disciplines and fields, there are reference works listing the past decade's research. There are also periodic, annotated reviews (journals) of the newest secondary literature within a given field. You could perhaps use these to start your chain search. You can also choose your texts on the basis of how many times they have been cited by other authors (if you conduct your search in Google Scholar, combine the title with "cited by" and it will show you who has cited the source).

The trick of the chain search is allowing authors to recommend each other. Preferably the chain search must therefore begin with a good text. Starting with bibliographies from the texts recommended by your teacher or discipline is a good idea.

## **Systematic literature search**

You should conduct a systematic, electronic literature search if you are looking for literature on a specific topic. Many people begin their search using Google, and in many cases Google will get you far. However, if you are looking for acclaimed and subject-specific literature, using Google is not enough. You should also use your research library's website and the databases it provides access to. You will often need a password to gain access to the subject-specific information search resources found there. There will often be numerous options, so you must decide which and how many you wish to search. Research libraries will often inform you about the strengths of the different search engines and which are biggest within a specific field or topic. If you want to conduct a systematic literature search, you should ideally try out different search engines and find out whether the same sources appear. From this you can decide whether you need to move on to the next. Always acquaint yourself with the content of a given database so you avoid for example searching for French sources from the 1980s in a database that only includes English sources from 1992 and after. Danish material cannot always be found on Google! This can best be found on *bibliotek.dk*, where all books, journals, newspaper articles of a certain length from the most recent decades are registered.

Adjust your search to find *abstracts* of the sources, so you can gain a quick overview of their content. Important information when searching is partly how many and partly which hits your search terms return. If you only get a few results, you can download or print out your search and at your leisure examine whether it contains anything relevant and whether you would like to read more than the abstract.

### **Random literature search**

As the name indicates, you let yourself be guided by chance, follow a link, a hunch and let yourself be inspired in a random literature search. It is particularly suitable for the initial idea phase, if you have come to a standstill or for finding a quirky angle for the paper's perspective.

No one search method is superior; each has different strengths and weaknesses. However, there is typically one that is more appropriate for your particular needs at a given time in the writing process.

### **Articles and other material**

Articles are an important and crucial supplement to books because

- articles are more up-to-date: Authors write articles before they write books
- many topics are too small to base an entire book on – however, a given topic can easily result in 200 articles even if it does not result in a single book.

We see many papers purely based on books and which include no articles at all. Often we find that the employed literature is too unspecific in relation to the paper's topic. You should especially turn to articles when writing bigger papers in the later years of your studies: final papers, theses, professional bachelor theses. In these papers, it is often not enough to rely on the basic literature of the field. The more scientific and scholarly your paper aims to be, the more it must build on others' research – and the newest developments will always be presented in articles.

In different fields and subject areas an increasing amount of journals are published in printed and electronic versions. Electronic journals are often a protected resource, which you can only access if you are given special rights through your educational institution. You will typically be able to access these using your password on your institution library's website. However, there is a lot of (academic) material freely available on the internet – including journals.

## Too much and not enough literature

### Too much literature – specify your search terms

If you get more results than you are able to gain an overview of (which is very common), you should narrow down your search by delimiting your topic/problem or by combining more search terms. It is perfectly normal that overwhelming amounts of literature will force you to narrow down the research question, the time period, the geographic area, point of view, etc. and to specify your search terms. Often the writer will become aware of the dialectic relationship between the research question, literature search and existing literature once he/she is confronted with the number of hits.

### If there is no literature?

If there is no literature, you presumably have not searched in the right places and/or using the right search terms. Perhaps you have combined too many terms in one search, for example, by simultaneously searching for literature on phenomena, theories and methods (see the pentagon earlier in this chapter).

If you need explanations (theories) for understanding a yet unexplained (perhaps new) phenomenon, you will have to use theories from adjacent fields. The important thing is that the explanatory models provide a useful understanding of the phenomenon no matter where these models stem from.

If you use data that is not described in the literature, you must describe it yourself – if you have enough time. A history student once wanted to argue for the existence of a specific category of Danish churches, which he did not believe were described in the literature. His supervisor replied: “Come back with pictures of the churches you believe this applies to. If necessary take the pictures yourself, and we can discuss whether I also see grounds for creating a new, special architectonic and historical category”. This is the reply of a truly research-minded supervisor! If a particular research question has never before been answered or posed using a particular combination of theory/methods and data, it can prove very fruitful for a paper: it simply forces the writer to analyse on his own. In this paper, documenting the fact that this type of church has not before been described is just as important as documenting its existence. If the writer wishes to claim that he has observed something that has yet gone unseen, documentation of this will require extensive knowledge of relevant literature on Danish church types. Limited amounts of literature may prove to be an

advantage – this provides your paper with a purpose. Interpreting Shakespeare for the thousandth time is much harder, also in regards to the literature and information search.

If there is (or seems to be) no literature on your chosen topic, you should first consult your research library and then your supervisor to plan a course of action – or find out whether you should abandon your topic. You should not do what the history student did without your supervisor's approval.

### **Is it okay to pretend that some literature does not exist?**

No, pretending that a source that exhausts a subject you wanted to write about does not exist (and then hoping your supervisor and external examiner do not know about it) is not an acceptable procedure. Students who discover that the paper they had in mind has basically already been written by another source often ask us this question. Even though it is a shame, you will have to angle your subject matter differently to show you have acknowledged the existing literature and to avoid repeating something that has already been published. There must be no suspicion of plagiarism or strategic suppression. Ideally you must always acknowledge and build upon others' publications. Students (and researchers!) commonly experience that material has been treated before. And this is why interpreting/explaining/constructing *new* material in a paper and prefacing your choice of research question with informative literature searches is greatly beneficial.

## **Search terms for literature searches for papers**

Search terms are the key to which literature you will obtain and which paper you will end up writing, because the writer's perspective and preconceptions of the topic can be found in the choice of which search terms to include and exclude.

Search terms must be field terms and these must often be narrowed down. You use field terms to search for literature and write your paper (unless you intend to invent new field terms!). Broad, everyday words should be avoided in searches as these will return too many meaningless hits.

Find possible field terms by looking in thesauruses (lists of search words) from your field. Reading this will give you an impression of what people have previously written about, and which search words have been used in your field. This will in itself serve as an inspiration for what to write about. Similarly libraries use topic classifica-

tion systems and here you can draw much inspiration for search terms and concepts. Many of these lists of search words are even clickable, which means you can search the library's material directly.

And remember: Supervisors and information specialists (librarians) are the persons most likely to have and pass on subject-specific know-how about topics/search terms. Use supervisors and librarians as guides.

Having a number of search terms ready before you sit down in front of your computer to search is always a good idea. You can also prepare related, synonymous words and translations of search terms into the languages you can and want to read in. Delimitations made in advance, e.g. only sources from the past decade; only from a specific angle etc., can limit the number of hits. This can be both an advantage and a disadvantage.

The following presents a procedure for finding useful search terms for a systematic Google search or a narrow, subject-specific search.

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**Activity: Search for literature using appropriate search terms:**

1. Look at your pentagon model and draw out significant words from your research question, data, theories/concepts/methods. These can all act as search terms, either on their own or in combination with other words.
2. Translate these words into the languages you wish to search in.
3. Ask for your supervisor/information specialist to help you with your search terms and how to translate these.
4. Try conducting a search to see how many hits you get and how useful they are – and adjust keywords and combinations of them using this information.

While conducting systematic searches for data and concrete phenomena is often unproblematic, searching and finding the wanted theories and concepts is much harder. Theories and concepts for analysing and understanding phenomena are best learnt in class. This is where to qualify and discuss theories. Internet searches are a slightly decontextualised way of acquainting yourself with big ideas.

Documenting your literature and information search

Including your search strategy in your paper’s introduction or method section will help demonstrate your method for approaching literature: “I have used the following search terms... in the following resources... on these dates...”. This is a highly recommendable form of documentation, which will allow the next researcher to replicate or modify your research on the basis of your described search strategy.

This is a detailed example of a documented search strategy from Nursing Education (BA, 12/A):



3.4 Literature search

In my literature search I have used a systematic method as well as chain searches (Rienecker; Jørgensen, 2006: 208-211). I conducted the systematic search in article databases.	Primary search methods are mentioned
The search was carried out over a longer period of time from 21st of March 2011 to 23rd of May 2011. Search terms therefore changed as I gradually established a focus in my paper.	Date of search
I began by searching the article database www.bibliotek.dk as well as www.sygeplejersken.dk using the search terms “difficult patient”. Through these searches I found the PhD dissertation <i>Kommunikation i den primære sundhedstjeneste</i> [Communication in the Primary Health Service] from 1999 by cand.comm. Jette Joost Michaelsen about a qualitative study of the relation and interaction between a district nurse and a “difficult” patient.	Database
Furthermore, I found the book <i>Patientologi</i> [Patientology] by cand.cur. Anne-Mette Graubæk, in which Jette Joost Michaelsen has written the chapter “The Difficult Patient”.	+ Danish portal
	Danish search terms “difficult patient”
	Danish search results
Following this, I conducted searches in the international databases PubMed and Cinahl using the search terms: Chronic, kidney, renal, disease, difficult, patient, stigma, nurses’ perspectives, nurse-patient-relation, communication, dialysis, say no and setting limits. By combining these search terms in different ways and with different limits, my search resulted in several irrelevant disease-related and medical articles. The Danish search term “vanskelig” does not quite equate to the English term “difficult”.	International databases
	English search terms
	English results
	Critique of method: Translation of search terms changes the meaning
I have used different criteria for inclusion and exclusion. First of all, material had to be from the past decade, be in Danish, Norwegian, Swedish or English, and studies had to include abstracts.	Inclusion and exclusion criteria



I searched the websites of Nyreforeningen [Danish Kidney Association], Dansk Nefrologisk Selskab [Danish Society of Nephrology] as well as Sundhedsstyrelsen [Danish Health and Medicines Authority].	Searching on kidney diseases on websites
As my searches produced few relevant results, I conducted a chain search using the existing material that appeared on the area.	Chain search
I have searched for background literature about kidney diseases, chronic illness, relation, interaction as well as communication on www.bibliotek.dk. These searches have provided me with an overview of some of the problem areas that characterise the illness and work with chronic kidney patients as well as the interaction between patient and nurse.	Background literature on broader terms searched for in the broad library database



This is a good example of how to describe your literature search as part of the paper's overall methodology in a paper which also includes other methods and criticism of methods in connection with the research procedure.

**Check you literature search:**

This is a checklist for literature searches. The checklist is both exhaustive and ideal. Assess which of the questions will enrich your work and realistically assure the quality of your paper's literature search. The checklist is quite comprehensive and you can answer no to (some) of the questions. However, consider it a suggestion for what you *could* do:

Checklist for literature searches for research papers			
PURPOSE	YES	NO	Can it be elaborated? Comments?
1. Have you clearly described the purpose of your search?			
2. Does your search include your research question's most important keywords?			

METHOD			
3. Have you adjusted your search terms according to the sources' language or to the database's "entry terms"?			
4. Have you included the search terms' possible different spellings, synonyms, acronyms or other subject-specific and everyday expressions?			
5. Have you correctly applied AND, OR, NOT or other types of operators when combining search terms to thereby increase or limit results?			
6. Have you supplemented electronic searches with manual searches in core documents, reference lists, citation history (who cites whom in citation indexes) or by contacting experts?			
7. Have you searched for both published and unpublished material?			
8. Will you include documents in languages other than English in your literature research?			
9. Does your search include different types of documents and research designs?			
10. Have you searched more than once?			
11. Have others (e.g. an information specialist) conducted searches to help you answer your research question?			
DOCUMENTATION			
12. Have you documented your entire search process and made it available to the reader?			
13. Have you substantiated the choices you have made in your search strategy?			
14. Have you outlined the time limit for the search?			

15. Have you outlined and substantiated the search's inclusion and exclusion criteria?			
16. Have you kept a log of the literature you have included and excluded?			
17. Have you evaluated whether your description of your search methodology makes your search appear biased?			
18. Have you evaluated whether the amount and type of literature found is satisfactory in relation to your research question?			
19. Have you received feedback on your search strategy? E.g. from your supervisor?			
BIAS			
20. Have you described whether your search was in any way limited in regards to time, access to sources, etc.?			
21. Have you considered which consequences included and excluded literature have for your results?			
22. Is it possible to call your selection biased in regards to the field and have you commented on this?			

We have adapted this from a list compiled for researchers by the information specialist Lorna Wildgaard from the Royal Library's Social Scientific University Library in Copenhagen.

## Evaluating literature – source criticism

In principle you must be critical of any material you consider including in your paper. As a general rule, the most reliable literature is literature that has been qualified by peers in your field. Professionals have assessed the quality of material found in the expensive databases purchased by university libraries. This is why you need your student password to access these sources. However, the price and the assessment

process do not mean that material from highly respected databases, like Encyclopedia Britannica for example, is beyond reproach. A student once said: “If I’ve found an article in a “peer reviewed” journal, I can’t very well criticise it”. Yes, you can. Nothing is beyond criticism, and all sources can contain certain perspectives and methodological problems, blind spots, etc., all of which must be taken into account. See chapter 7 on source criticism and p. 313 on critically evaluating others’ argumentation.

### **Tips for critically reviewing Internet sources**

Ask:

- Who has uploaded or published the material? Who is the sender? What do you know about author, publisher, institution – and which interests may guide their choice and perspective of the material? The authority and bias of the website’s authors can be important when evaluating the reliability of the material.
- Which time period does the material cover and is it relevant to you? How great is the need for updates and topicality? When was the website last updated? Frequent updates suggest that someone is keeping a regular eye on the material.
- Is the material on the website documented, i.e., are there bibliographies, links?
- Does the material exist in published form? If so, a publisher will have looked it over, making it preferable.
- The domain can also be included among the general criteria for criticism. The internet is divided into domains, e.g. .edu (education), .org (government), .mil (military), .com (commercial) and according to country, .dk, .uk, etc. The domain or the url-address is not a quality mark in itself. Sites written by students may have an .edu-address while an academic may have published an article on his own website if he was unable to get it published in a journal.

You should primarily be critical of:

- Who made the material?
- Why – are there any special interests involved?
- Is there material that cannot be found online, but which can be found elsewhere?

If you have cause to be critical of the literature you come across, you have the following options:

- include your source criticism in your paper (however, you must be able to defend using the source despite your criticism, e.g. there were no other/better sources)

- discuss questionable sources with your supervisor and ask for your supervisor's assessment
- find a different source.

There is often cause for reservations about literature and material. As long as you clearly demonstrate taking the necessary precautions and being aware of the restrictions you know about, and are able to argue for and against the material you include, this is all part of conducting research and writing a paper.

## **Your supervisor and literature and information searches**

While information specialists and librarians are experts on systematic searches for specific topics, supervisors are experts on qualifying literature and applying it in a subject-specific/theoretical context. Supervisors also have knowledge of the field's core literature, the field's journals, and supervisors know where to start a chain search, if you choose to use this method (see above). Your supervisor is the professional who must be convinced that your literature selection is relevant, sufficient and includes the field's core texts – regardless of whether your supervisor is familiar with your paper's topic.

When it comes to research papers, the supervisor's job is to comment, and perhaps approve and supplement, students' bibliographies. Supervisors will usually want a temporary bibliography for a paper early in the writing process. Ideally you should meet with your supervisor before making a search strategy (a plan of what to search for, where to search and which formulations and terms to use) and to determine search terms on the basis of a research question your supervisor can approve of (these will be initial as you will change your search terms many times, also while searching).

You need to know whether your literature is academically substantial and viable for your level of study, and whether it is comprehensive enough for the requirements of the curriculum and the customs of the field. If your supervisor suggests literature, ask him/her to qualify each of his/her suggestions and to describe how you can use the suggested literature in your paper. However, do not expect your supervisor to suggest literature. The literature will often be too extensive for a supervisor to have knowledge of all the field's nooks and crannies and many writers will therefore have to find literature on their own. This is why university libraries and information specialist are an indispensable resource when writing papers.

Ask your supervisor to comment on and help you choose search terms for your own electronic searches.

## **Resources for literature and information searches**

In the following we list a number of good, general resources. Resources that are specific to your programme of study can be found at your research library or through your teachers.

### **Courses at research and university libraries**

If you need help conducting a systematic, topical search, begin by taking courses at research and university libraries or by following their web tutorials.

### **Web tutorials**

Research and university libraries offer web tutorials on searching for and ordering literature.

### **Contact the information specialist**

Research libraries employ subject specialists who can answer questions about literature for papers and research. If you require help for a specific search, libraries offer mail services on the basis of the motto “help them help themselves”. You can also make an appointment to meet with a specialist. You can for example write to the Royal Library on [fagligt@kb.dk](mailto:fagligt@kb.dk) and ask for help with your literature search. Asking a subject specialist for advice when searching can provide a short cut and prove helpful. You can read more on your research library’s website.

### **Web resources**

*biblioteksvagten.dk* is a national service operated by both public libraries and research libraries.

*Google Scholar* describes the functions of its search engine on its homepage:

#### **What is Google Scholar?**

Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and articles reviewed by professionals from academic

publishing houses, professional societies, online repositories, universities and other web sites. Google Scholar helps you find relevant work across the world of scholarly research.

### **Features of Google Scholar**

- **Search** all scholarly literature from one convenient place
- **Locate** dissertations, abstracts and quotes
- **Locate** complete documents through your research library or on the web
- **Learn** more about key studies in any area of research.

### **How are articles ranked?**

Google Scholar presents search results according to relevance. Just like conducting internet searches using Google, the most relevant results will be shown at the top of the page. Google's technology for ranking results takes into account the whole text of each article, the author, the publication in which the article is published and how often the search text has been cited in other scientific literature.

Google has many functions that are useful when writing papers and studying these many functions will pay off. The book *Find det med Google [Find It with Google]*, Libris, Copenhagen, by Nicolaisen, Erik Høy (2007) provides an overview of how Google can help students when writing papers (the book is out of print, but can be found at the library).

**Scribo (2012)** provides a guide to conducting literature and information searches for your paper. Find out if your educational institution has a subscription on scribo.dk. You can also purchase a single user license. The interactive question guide is based on this book's chapters about formulating research questions and literature searches.

**Research libraries** have developed resources for literature searches and evaluations:

**ub-testen.dk** (Library Test) – test your knowledge of literature searches and source evaluation in 10 minutes.

**stop.plagiat.nu** (stop plagiarism) – test your knowledge of referencing and including sources in 10 minutes.