

Finding & Analyzing Sources

Analyzing primary, intermediate, and advanced search techniques

Wikipedia is often the first stop on the research train, and for good reason. You can easily find concise, informative explanations on nearly any topic, and even investigate further using links and footnotes. Although it's a great beginning research tool, anyone, regardless of background, qualifications, or expertise, can write Wikipedia articles. As a result, articles can display incorrect information.

John Seigenthaler

From Wikipedia, the free encyclopedia
(Redirected from [Seigenthaler, John](#))

This article is about the political editor. For his son, see [John Seigenthaler \(anchorman\)](#).



This section **needs additional citations for verification**. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. *(October 2014)* ([Learn how and when to remove this template message](#))

There are many examples of such incorrect information on Wikipedia. Perhaps the most infamous involves the [Wikipedia article on John Seigenthaler \(Links to an external site.\)](#) (former journalist, political advisor, and father of the reporter of the same name on NBC news). Brian Chase changed the article to indicate that Seigenthaler played a role in the assassination of President John F. Kennedy and his brother Robert. This untrue contribution lasted for 132 days (Page, "Wikipedia Biography"). Seigenthaler was understandably upset, which he reported vociferously in an [article in USA Today \(Links to an external site.\)](#). Were someone to take Wikipedia's John Seigenthaler's article at face value during this time, she or he would come to the wrong conclusion about Seigenthaler.

If you quote or paraphrase a Wikipedia article as an authoritative source, then, you are potentially making a claim based on wrong information, and using incorrect information is not a good way to make a convincing argument. Because the internet offers publishing capabilities to anyone, anytime, it's not just Wikipedia that offers a false sense of security in its information. You should, therefore, read critically **all** sources, not just Wikipedia articles.

It's always a good idea to verify information in multiple sources. To ensure a better chance of accuracy, though, college-level research-based writing assignments generally ask you to use sources written by academic professionals and recognized experts. In this section, you'll learn how follow the research process in order to carefully use search engines and library databases to find scholarly articles.

What You Will Learn To Do

- analyze preliminary research strategies (developing a research plan, basic online searching, using Google)
- analyze intermediate research strategies (advanced online searches, finding scholarly sources and primary and secondary sources, basic library searches, librarian consultation)
- analyze advanced search strategies (advanced library searches, reading academic texts, using library databases)

Video: Preliminary Research Strategies

Preliminary Research Strategies

Before you dive into your research paper, you want to inform yourself about the basics of your topic. Be sure you've read all the assigned texts and carefully read the prompt as you gather preliminary information. This stage is sometimes called **pre-research**.

[Transcript: Doing Background Checks on Your Research.pdf](#) 

Beginning the Search

You shouldn't start your research by just typing in a question like, "What were medical practices like during the Battle of Gettysburg?" Instead, you should make use of **key terms**, or words that will appear frequently in the source.

To search key terms, think about important words that will occur in sources you could use. Then, type one or two of those terms into the search bar. Most search engines will generate results based on how frequently those words appear in articles and their abstracts.

Let's use our topic of medical practices at the Battle of Gettysburg as an example. You might choose keywords like "amputation," "field medicine," and "Gettysburg." This should yield articles that discuss amputations on the field during the Battle of Gettysburg. You could also search something like "anesthesia" and "Civil War," which would lead you to articles about anesthetics during the war.

While searching with key terms, you may need to get creative. Some articles will use different language than you might expect, so try a variety of related terms to make sure you're getting back all the possible results.

Suppose you are asked to write a paper in support of this assertion:

The proliferation of fast food has led to the national problem of obesity.

It's not a good idea to type in the entire sentence in your search, as there are many irrelevant words in this search statement. Before typing, decide which words or phrases are essential to

your search and which are non-essential. There are only two concepts in this statement that are essential to its meaning: fast food and obesity. You can eliminate the word “proliferation” because it modifies the essential concept of fast food and the phrase “national problem” is not crucial because we assume any article talking about “fast food” and “obesity” will discuss some negative aspect that would represent a *national problem*.

The Research Process

A good research process should go through these steps:

1. **Decide on the topic**, or carefully consider the topic that has been assigned.
2. **Narrow the topic** in order to narrow search parameters.
 - If you are studying the Battle of Gettysburg, for example, you might decide to look into any number of topics related to the battle: medical practices on the field, social differences between soldiers, or military maneuvers. If your topic is medical practices in battle, a search for “Battle of Gettysburg” would return far too many general results. You would also not want to search for a single instance of surgery, because you might not be able to find enough information on it. Find a happy medium between very broad and too specific.
3. **Do background research**, or pre-research, using broad search tools like Google search, Wikipedia, textbooks, or encyclopedias.
 - You can also talk about your research with friends, co-workers, and family for more ideas.
4. **Create a question** that your research will address and generate sub-questions from your main question.
 - By determining your research question, you can **develop a working thesis statement**, or the main point you hope to make in your paper. Plan to revise your thesis statement several times as you learn more about your topic. It will help you concentrate on what you want and ignore information that is irrelevant.
5. **Determine what kind of sources are best** for your argument.
 - How many sources will you need? How long should your paper be? Will you need primary or secondary sources? Where will you find the best information?
6. **Create a bibliography** as you gather and reference sources. Make sure you are using credible and relevant sources.
7. **Write and edit your paper!** Incorporate the research into your own writing and properly cite your sources.

For example, in step one, you might decide that your topic will be the [Flint Water Crisis \(Links to an external site.\)](#) that began in 2014. Then in step two you may consider narrowing it down to either how the lead poisoning got into the water in the first place, government corruption, the impact of the crisis, or environmental racism. You might decide on government corruption and decide to investigate the specific state and local officials involved in the events leading up to the crisis.

After some initial research, you would come up with a research question. A good research question for this example might be, “How did the behavior and actions of state and local officials lead to the Flint Water Crisis?” Next, you generate sub-questions from your main question. For instance, “Who were the public officials during the Flint Water Crisis?” “How did officials react when they first learned of the polluted water?” “In what ways did public officials ignore/exacerbate the water problem?” These questions enable you to create a working thesis statement that can help organize and shape your paper. A working thesis statement for this paper might be “The actions and corruption of state and local officials in Flint led to the Flint Water Crisis.” As you get further into the research, you might modify your thesis statement to be more specific about the types of action and corruption, or what officials were most responsible.

Next, you’ll decide on what type of sources you want to use. Because this is a current event, you may choose a good mix of both primary and secondary sources, as well as popular news articles and scholarly reports on government actions. As you accumulate sources, make sure you create a bibliography, or a list of sources that you’ve used in your research and writing process. It’s always a good idea to keep track of your sources and take notes on where you find information so you can easily include the information you need into your final paper. And finally, have fun doing the research!

Practice: Research Questions and Working Thesis Statements

1. Which of the following is the better research question?

- a. Is global warming harmful?
- b. What are the adverse effects of global warming?

Show Answer: “Is global warming harmful?” is not the best way to state the question because it’s too general. “What are the adverse effects of global warming?” allows you to discover specific adverse effects.

2. Which of the following is the better research question?

- a. Do doctors charge too much?
- b. What factors influence the operating costs of physicians?

Show Answer: “Do doctors charge too much?” is not the best way to state the question because it’s too general. “What factors influence the operating costs of physicians?” is the best way to state the question because it focuses on a specific aspect of the cost of medical care.

3. Decide whether or not the following working thesis statements are good or bad:

- a. Man has had a major impact on the environment.
- b. Marijuana use in Mishawaka, Indiana has been a problem for law enforcement since the 1970s.
- c. Miley Cyrus is a horrible singer.
- d. Profilers have played a necessary role in catching serial killers.

Show Answer:

- a. Bad. This statement is way too vague and broad. What constitutes “major impact”? What aspects of the environment are we talking about? What century are we talking about?
- b. Bad. Even if it is true, it is too local and narrow to be supported with national or scholarly research. Sources would probably be limited to local newspaper articles and personal interviews. Can you make those sources “stretch” across a 10 page research paper? Not likely.
- c. Bad, because the statement is largely an unfocused opinion. What exactly is “horrible”? How does Miley Cyrus fall into that category? Do you think there are many books or research articles that could support this topic? Probably not.
- d. Good. Using this statement for a paper allows you to skip over the sources that do not deal with profiling, that do not deal with the apprehension of serial killers, and that deal only with the injustices of “racial profiling.” **A good working thesis statement saves you time and keeps you focused.**

Level Up Your Google Game

Popular search engines like [Google \(Links to an external site.\)](#), [Yahoo \(Links to an external site.\)](#), and [Bing \(Links to an external site.\)](#) enable you to find lots of information quickly and, when used cautiously, can be fabulous research tools. Because the information you find is not necessarily academic, credible, or pertinent to your topic, generic search engines are best used in the preliminary stages of the research process. As you use these search engines, make sure you are using them most effectively so you can speed up your search process and find the best information.

Google Search Tips

" " Use quotes to search for exact phrases. This search tool looks for the words in the same order they appear, so be careful not to be too specific, or risk excluding helpful information. For example, “medicinal practices at Gettysburg” returns just one result. **Example: “The Battle of Gettysburg” or “Medicinal practices” Gettysburg.**

-- Use dash immediately before a word or site to exclude that from your search. **Example: cricket -insect or Civil War -Gettysburg or Civil War -site:wikipedia.org**

* Put an asterick in place of an unknown search term. **Example: “an * a day”**

site: Search specific websites or domains. This is helpful in academic research if you want to find articles only from .edu, .gov, or .org websites.

Examples: Gettysburg site:history.com or Gettysburg site:mil

related: Find websites that are similar to a web address you already know. **Example:** [related:genealogy.com](#)

OR Use OR to search for information that may use a different word. **Example: medicine OR surgery in “Battle of Gettysburg”**

AND/OR Use to narrow search results.

filetype: Find specific types of files. **Example: Gettysburg Address filetype:ppt**

allintitle: Find pages that have the keywords in the title of the page. **Example: allintitle: medicine gettysburg battle**

Google Advanced Search

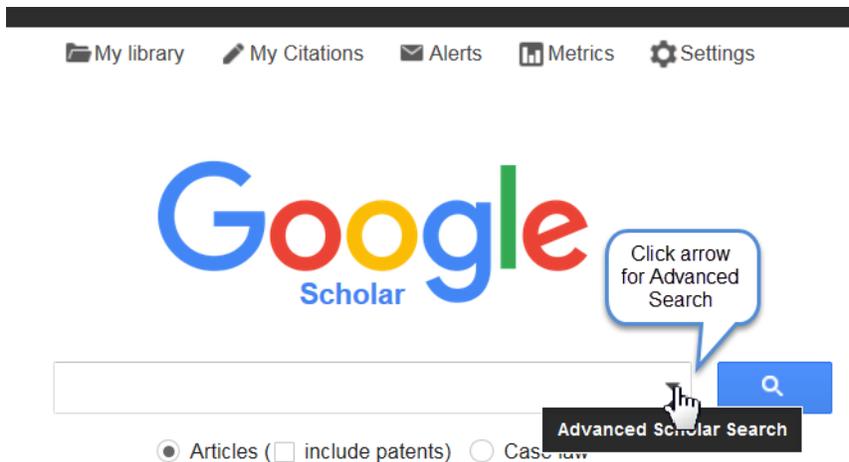
You can avoid having to memorize many of the search tools by simply using [Google Advanced Search \(Links to an external site.\)](#) and typing in the specific information you seek. There you can sort for exact words, phrases, websites, filetype, and even usage rights.



[Google Advanced \(Links to an external site.\)](#)

Google Scholar

A popular article database is [Google Scholar \(Links to an external site.\)](#). It looks like a regular Google search, and it aims to include the vast majority of scholarly resources available. While it has some limitations and is not as valuable as searching within library databases, it's a useful tool if you want to cast a wide net. It's also a large step above general Google searches for finding academic content. Google Scholar starts with a basic search blank. Because researchers are more likely to need the results of more specific searches, the advanced search link is accessed via a down-arrow in the search blank.



Here are a few things to consider when using Google Scholar:

- Keep in mind that Google is not transparent about the journals or time ranges it indexes, and publishers occasionally request that Google Scholar not index their publications. Non-scholarly and/or non-peer reviewed material may also appear in Google Scholar, so it is best used in conjunction with other search tools.
- Unless your Google Scholar account is already connected to your school library account (check with your library for setting that up), you will likely see that many articles will cost you \$20 or \$30 just to look at. **Don't pay for them!** You probably have access to virtually all the published academic literature through your library resources. Write down the key information (authors' names, title, journal title, volume, issue number, year, page numbers) and go find the article through your library website. If you don't have immediate full-text access, you may be able to get it through interlibrary loan.
- A neat Google Scholar feature is the "cited by" link. If you get one great hit on Google Scholar, you can quickly see a list of other papers that cited it.

Watch this video to get a better idea of how to utilize Google Scholar for finding articles. While this video mentions setting up an account with La Trobe University, the same principles apply to other colleges and universities. Ask your librarian or check out [Google Scholar Search Tips \(Links to an external site.\)](#) for more assistance.

Intermediate Research Strategies

- - - **Begin with background research**
 - **Narrow the search terms**
 - **Look for scholarly information**
 - **Search libraries & databases**

The first step in finding good resources is to know what to look for. Sites like Google, Yahoo, and Wikipedia may be good for general searches, but if you want something you can cite in a scholarly paper, you need to find academic sources.

Scholarly Sources

A scholarly source can be an article or book that was written by an expert in the academic field. Most are by professors or doctoral students for publication in peer-reviewed academic journals. Since the level of expertise and scrutiny is so high for these articles, they are considered to be among the best and most trustworthy sources. Most of these articles will list an author's credentials, such as relevant degrees, other publications, or employment at a university or research institution. If an article does not, try searching for the author online to see how much expertise he or she has in the field.

Primary and Secondary Sources

A **primary source** is an original document. Primary sources can come in many different forms. In an English paper, a primary source might be the poem, play, or novel you are studying. In a history paper, it may be a historical document such as a letter, a journal, a map, the transcription of a news broadcast, or the original results of a study conducted during the time period under review. If you conduct your own field research, such as surveys, interviews, or experiments, your results would also be considered a primary source. Primary sources are valuable because they provide the researcher with the information closest to the time period or topic at hand. They also allow the writer to conduct an original analysis of the source and to draw new conclusions.

Secondary sources, by contrast, are books and articles that analyze primary sources. They are valuable because they provide other scholars' perspectives on primary sources. You can also analyze them to see if you agree with their conclusions or not.

Most essays will use a combination of primary and secondary sources.

Finding Books

Despite the ease of the internet, and all the resources available to you in searching online, it is still valuable to find pertinent information in actual books. Books cover virtually any topic, fact or fiction. For research purposes, you will probably be looking for books that synthesize all the information on one topic to support a particular argument or thesis. They will be especially beneficial

- to locate substantial, in-depth information on a topic
- to put your topic in context with other important issues
- to find historical information
- to find summaries of research to support an argument

Scholarly Articles

While books are undoubtedly fabulous resources, you will find shorter, specific, scholarly works in academic journals. Essays in academic journals are essentially reports that scholars write to their peers—present and future—about what they’ve done in their research, what they’ve found, and why they think it’s important. Thus, in a lot of fields they often have a structure reminiscent of the lab reports you’ve written for science classes:

1. **Abstract:** A one-paragraph summary of the article: its purpose, methods, findings, and significance.
2. **Introduction:** An overview of the key question or problem that the paper addresses, why it is important, and the key conclusion(s) (i.e., thesis or theses) of the paper.
3. **Literature review:** A synthesis of all the relevant prior research (the so-called “academic literature” on the subject) that explains why the paper makes an original and important contribution to the body of knowledge.
4. **Data and methods:** An explanation of what data or information the author(s) used and what they did with it.
5. **Results:** A full explanation of the key findings of the study.
6. **Conclusion/discussion:** Puts the key findings or insights from the paper into their broader context; explains why they matter.

How to Read Scholarly Articles

This video defines scholarly articles and explains how to read through them so you can find the information you need.

[Vimeo: What is a Scholarly Article? \(Links to an external site.\)](#)

Not all papers are so “sciencey.” For example, a historical or literary analysis doesn’t necessarily have a “data and methods” section, but it will explain and justify the research question, describe how the authors’ own points relate to those made in other relevant articles and books, develop the key insights yielded by the analysis, and conclude by explaining its significance. Some academic papers are review articles, in which the “data” are published papers and the “findings” are key insights, enduring lines of debate, and/or remaining unanswered questions.

Understanding the structure of scholarly articles tells you a lot about how to find, read, and use these sources. Some hints:

1. **Find them quickly.** Instead of paging through mountains of dubious web content, go right to the relevant scholarly article databases in order to quickly find the highest quality sources.
2. **Use the abstracts.** Abstracts tell you immediately whether or not the article you’re holding is relevant or useful to the paper you’re assigned to write. You shouldn’t ever have the experience of reading the whole paper just to discover it’s not useful.
3. **Read strategically.** Knowing the anatomy of a scholarly article tells you what you should be reading for in each section. For example, you don’t necessarily need to

understand every nuance of the literature review. You can just focus on why the authors claim that their own study is distinct from the ones that came before.

4. **Don't sweat the technical stuff.** Not every social scientist understands the intricacies of log-linear modeling of quantitative survey data; focus instead on the passages that explain the findings and their significance in plainer language.
5. **Use one article to find others.** If you have one really good article that's a few years old, you can use article databases to find newer articles that cited it in their own literature reviews. That immediately tells you which ones are on the same topic and offer newer findings. On the other hand, if your first source is very recent, the literature review section will describe the other papers in the same line of research. You can look them up directly.

Video: Library Databases

If you want reliable sources, head to your library (or the library website!) and check out the library databases. Here's why:

- **Library resources go through a review process.** Librarians select books, magazines, journals, databases, and other media sources. This selection process allows the library to collect sources considered reliable, historically relevant, and valuable.
- **Library resources are free for your use.** Libraries purchase subscriptions to journals, databases, and other resources so they are available for your research. These subscriptions are not cheap but your library considers them a good investment, because the information is valuable, relevant, and reliable.
- **Library resources are organized** so you can easily find all the sources on a topic.
- **Library resources are meant to be kept permanently.** One of the primary functions of a library is to be an organized storehouse of in-depth information published throughout time. Current and historical information can be found in the library, giving a picture of how information on a topic developed.
- **Library resources come with personal assistance.** Unlike the Internet which is primarily do-it-yourself, libraries have staff who are trained to assist you in sorting through all these information sources. They can help you learn to use new tools and can answer any questions you have. Some libraries even provide help through their websites.
- **Libraries have large collections of information** on a variety of topics which have been carefully selected and organized. The key idea when using the library is that you are getting QUALITY over QUANTITY. Print or electronic library resources are the best sources to use when starting your research. You can efficiently find quality information from a variety of credible resources in the library.

Watch the following video to get an idea of what a library database is and why it is valuable to your research.



[What's Library Databae? \(Links to an external site.\)](#)

Video: How to Search Databases

The following video demonstrates a few tips, like how to use Boolean operators to search within a library database (it's not the same as searching in Google!). Although library websites vary, the same general search tips apply to nearly all academic databases. On your school's library homepage, you should be able to find a general search button and an alphabetized list of databases. Get familiar with your own school's library homepage to identify the general search features, find databases, and practice searching for specific articles.

This presentation shows more specific tools you can utilize to get the search results you want.