5.4: Gathering Your Sources

Gathering Your Sources

Now that you have planned your research project, you are ready to begin the research. This phase can be both exciting and challenging. As you read this section, you will learn ways to locate sources efficiently, so you will have enough time to read the sources, take notes, and think about how to use them in your research paper.

In addition to finding sources, research entails determining the relevance and reliability of sources, organizing findings, as well as deciding whether and how to use sources in your paper. The technological advances of the past few decades, particularly the rise of online media, mean that, as a twenty-first-century student, you have countless sources of information available at your fingertips. But how can you tell whether a source is reliable?

This section will discuss strategies for finding and evaluating sources so that you can be a media-savvy researcher.

Depending on your assignment, you will likely search for sources by using:

- Internet search engines to locate sources freely available on the web.
- A library's online catalog to identify print books, ebooks, periodicals, and other items in the library's collection.
Online databases to locate articles, ebooks, streaming videos, images, and other electronic resources. These databases can also help you identify articles in print periodicals.

Your instructor, as well as your librarians and tutors, can help you determine which of these methods will best fit your project and learn to use the search tools available to you. You can also find research guides and tutorials on library websites and online video channels that can help you identify appropriate research tools and learn how to use them. As you gather sources, you will need to examine them with a critical eye.

Smart researchers continually ask themselves two questions: "Is this source relevant to my purpose?" and "Is this source reliable?" The first question will help you avoid wasting valuable time reading sources that stray too far from your specific topic and research questions. The second question will help you find accurate and trustworthy sources.

Businesses, government organizations, and nonprofit organizations produce published materials that range from brief advertisements and brochures to lengthy, detailed reports. In many cases, producing these publications requires research. A corporation's annual report may include research about economic or industry trends. A charitable organization may use information from research in materials sent to potential donors. Regardless of the industry you work in, you may be asked to assist in developing materials for publication. Often, incorporating research in these documents can make them more effective in informing or persuading readers.

Identifying Primary and Secondary Sources

When you chose a paper topic and determined your research questions, you conducted preliminary research to stimulate your thinking. Your research plan included some general ideas for how to go about your research; for instance, interviewing an expert in the field or analyzing the content of popular magazines. You may even have identified a few potential sources.

Now it is time to conduct a more focused, systematic search for informative primary and secondary sources. Writers classify research resources in two categories: primary sources and secondary sources.

Primary sources are direct, firsthand sources of information or data. For example, if you were writing a paper about the First Amendment right to freedom of speech, the text of the First Amendment in the Bill of Rights would be a primary source. Other primary sources include the following:

- Data
- Works of visual art
- Literary texts
- Historical documents such as diaries or letters
- Autobiographies, interviews, or other personal accounts

Secondary sources discuss, interpret, analyze, consolidate, or otherwise rework information from primary sources. In researching a paper about the First Amendment, you might read articles about legal cases that involved First Amendment rights, or editorials expressing commentary on the First Amendment. These sources would be considered secondary sources because they are one step removed from the primary source of information. The following are examples of secondary sources:
Academic books, monographs, and articles

- Literary criticism
- Biographies
- Reviews
- Documentaries
- News reports

Your topic and purpose determine whether you must cite both primary and secondary sources in your paper. Ask yourself which sources are most likely to provide the information that will answer your research questions.

If you are writing a research paper about reality television shows, you will need to use some reality shows as a primary source, but secondary sources, such as a reviewer’s critique, are also important. If you are writing about the health effects of nicotine, you will probably want to read the published results of scientific studies, but secondary sources, such as magazine articles discussing the outcome of a recent study, may also be helpful.

Some sources could be considered primary or secondary sources, depending on the writer’s purpose for using them. For instance, if a writer’s purpose is to inform readers about how the No Child Left Behind (NCLB) legislation has affected elementary education in the United States, then a Time magazine article on the subject would be a secondary source. However, suppose the writer’s purpose is to analyze how the news media has portrayed the effects of NCLB. In that case, articles about the legislation in news magazines like *Time*, *Newsweek*, and *US News & World Report* would be primary sources. They provide firsthand examples of the media coverage the writer is analyzing.

Pay close attention to your professor's requirements for sources. You will mostly be required to include some academic (alternatively called "scholarly") sources in your project. Many professors value these sources above all others because they see academic research as the best research: written by experts in the field and then reviewed by other experts.

Once you have thought about what kinds of sources are most likely to help you answer your research questions, you may begin your search for sources. The challenge here is to conduct your search both efficiently and thoroughly. On the one hand, effective writers use strategies to help them find the sources that are most relevant and reliable while steering clear of sources that will not be useful; on the other hand, they are open to pursuing different lines of inquiry that come up along the way than those that seemed relevant at the start of research. As a process of discovery, good research requires critical thinking about, and often revising of, writers' plans and ideas.

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**Popular vs. Scholarly Periodicals**

When you search for periodicals, be sure to distinguish among different types.

Here is an Excellent video produced by the GSU Library that talks about the difference between popular and scholarly resources: [Popular vs. Scholarly](https://human.libretexts.org/Bookshelves/Composition/Introductory_Composition/Book%3A_Writing_for_Success_(Weaver_et…)

Mass-market publications, such as newspapers and popular magazines, differ from scholarly publications in their accessibility, audience, and purpose.
Popular Periodicals

Newspapers and magazines are written for a broader audience than academic / scholarly journals. Their content is usually quite accessible and easy to read. For example, you could read an article in *Sports Illustrated* while waiting at the dentist. Since your dentist has a wide range of patients, the magazines need to reflect that range. Trade magazines that target readers within a particular industry may presume the reader has background knowledge, but these publications are still reader-friendly for a broader audience. Their purpose is to inform and, often, to entertain or persuade readers as well.

Scholarly Journals

Scholarly or academic journals assume that most of their readers are already familiar with the main topic of the journal. The target audience is also highly educated. Informing is the primary purpose of a scholarly journal. While a journal article may advance an agenda or advocate a position, the content will still be presented in an objective style and formal tone. Entertaining readers with breezy comments and splashy graphics is not a priority.

They are often long, anywhere from 15 to 50 pages. Because of these differences, scholarly journals are more challenging to read. That doesn't mean you should avoid them. On the contrary, they can provide in-depth information unavailable elsewhere. Because knowledgeable professionals carefully review the content before publication in a process called "peer-review," scholarly journals are far more reliable than much of the information available in popular media. Seek out academic journals along with other resources. Just be prepared to spend a little more time processing the information.

Gray Area Sources

"Hybrid" or "Gray Area" Sources: Sometimes, you'll find an article in a popular magazine that has the expertise of a scholarly article, so it falls into a "gray area" between academic and popular. For example, Jorge found a long (22 pages), well-researched article about both the history of college sports and its current scandals: *The Shame of College Sports* opens in new window, by Taylor Branch. Taylor Branch is a highly respected and expert historian who wrote a biography of Martin Luther King, Jr., and writes scholarly research about the movement for Civil Rights.

Because the article appeared in *The Atlantic*, a magazine geared toward an educated and engaged, but wide and popular readership, Jorge wasn't sure if his professor would see it as "academic," so he forwarded the link to her. After reviewing the article, she told Jorge he could use it as one of his required scholarly sources. Sometimes trade publications and government publications will fall into this category. The best thing to do when you run into a "hybrid" or "gray area" source is to check with your professor.

Periodicals databases are not just for students writing research papers. They also provide a valuable service to workers in various fields. The owner of a small business might use a database such as *Business Source Premiere* to find articles on management, finance, or trends within a particular industry. Health care professionals might consult databases such as *MedLine* to research a particular disease or medication. Regardless of what career path you plan to pursue, periodicals databases can be a useful tool for researching specific topics and identifying periodicals that will help you keep up with the latest news in your industry.
When faced with the challenge of writing a research paper, some students rely on popular search engines, such as Google, as their only source of information. Typing a keyword or phrase into a search engine instantly pulls up links to dozens, hundreds, or even thousands of related websites. What could be easier? While the Web is useful for retrieving information, you should be wary of limiting your research to sources from the open Web.

For example, wikis, including online encyclopedias, such as Wikipedia, and community-driven question-and-answer sites, such Yahoo Answers, are very easy to access on the Web. They are free, and they appear among the first few results when using a search engine. Because these sites are created and revised by a large community of users, they cover thousands of topics, and many are written in an informal and straightforward writing style. However, these sites may not have a reliable control system for researching, writing, and reviewing posts. While wikis may be a good starting point for finding other, more trustworthy, more fully developed sources (always look at a Wiki's sources!!), usually they should not be your final sources.

Despite its apparent convenience, researching on the open Web has the following drawbacks to consider:

- Results do not consider the reliability of the sources. The first few hits that appear in search results often include sites whose content is not always reliable. Search engines cannot tell you which sites have accurate information.
- Results may be influenced by popularity or advertisers. Search engines find websites that people visit often and list the results in order of popularity rather than relevance to your topic.
- Results may be too numerous for you to use. Search engines often return an overwhelming number of results. Because it is difficult to filter results for quality or relevance, the most useful sites may be buried deep within your search results. It is not realistic for you to examine every site.
- Results do not include many of the library's high quality electronic resources that are only available through password-protected databases or on campus.

Because anyone can publish anything on the Web, the quality of the information varies greatly and you will need to evaluate web resources carefully. Just because it's there doesn't mean it's a good source.

Nevertheless, a search on the open Web can provide a helpful overview of a topic and may pull up genuinely useful sources.

You may find specialized search engines recommended on your college library's website. For example, http://www.usa.gov will search for information on United States government websites. If you are working at your personal computer, use the Bookmarks or Favorites feature of your web browser to save and organize sites that look promising.
Getting the Most out of a Search Engine

To get the most out of a search engine, use strategies to make your search more efficient. Depending on the specific search engine you use, the following options may be available:

- List item 1
- List item 2
- List item 3
- Limit results to websites that have been updated within a particular time frame.
- Limit results by language or region.
- Limit results to scholarly works available online. Google Scholar is an example, but remember: any source you find on Google Scholar won't be free unless you access it through the library databases. Therefore, while it's fine to get citations through Google Scholar, you should NEVER have to pay for them.
- Limit results by file type.
- Limit results to a particular site or domain type, such as .edu (school and university sites) or .gov (government sites). This is a quick way to filter out commercial sites that often lead to less objective results.

Types and Formats of Library Sources

Information accessible through a college library comes in a variety of types and formats of sources. Books, DVDS, and various types of periodicals can be found in physical form at the library. Many of these same materials are available in electronic format in the form of ebooks, electronic journal articles, and streaming videos.

Your college library may have some resources in both print and electronic formats while others may be available exclusively in one format. The following lists different types of resources available at college libraries. In addition to the resources noted, library holdings may include primary sources such as historical documents, letters, diaries, and images.

Types of sources

- Reference works provide a summary of information about a particular topic. Almanacs, encyclopedias, atlases, medical reference books, and scientific abstracts are examples of reference works. In most cases, reference books may not be checked out of a library. Note that reference works are many steps removed from original primary sources and are often brief, so these should be used only as a starting point when you gather information. Examples: The World Almanac and Book of Facts 2010; Diagnostic and Statistical Manual, published by the American Psychiatric Association.
- Nonfiction books provide in-depth coverage of a topic. Trade books, biographies, and how-to guides are usually written for a general audience. Scholarly books and scientific studies are usually written for an audience that has specialized knowledge of a topic. Examples: Indentured: The Battle to End The Exploitation of College Athletes; Carbohydrates, Fats and Proteins: Exploring the Relationship Between Macronutrient Ratios and Health Outcomes.
- Periodicals are published at regular intervals: daily, weekly, monthly, or quarterly. Newspapers, magazines, and academic journals are different kinds of periodicals. Some periodicals provide articles on subjects of general interest while others are more specialized. Examples: The New York Times; PC Magazine; JAMA: The Journal of the American Medical Association.
• Government publications by federal, state, and local agencies publish information on a variety of topics. Government publications include reports, legislation, court documents, public records, statistics, studies, guides, programs, and forms. Examples: The Census 2000 Profile; The Business Relocation Package, published by the Philadelphia Chamber of Commerce.

• Business publications and publications by nonprofit organizations are designed to market a product, provide background about the organization, provide information on topics connected to the organization, or promote a cause. These publications include reports, newsletters, advertisements, manuals, brochures, and other print documents. Examples: a company's instruction manual explaining how to use a specific software program; a news release published by the Sierra Club.

• Documentaries are the moving-image equivalent of nonfiction books. They cover a range of topics and can be introductory or scholarly. Newsreels can be primary sources about then-current events. Feature-length programs or episodes of a series can be secondary sources about historical phenomena or life stories. You may view a documentary in a movie theater, on television, on an open website, or in a subscription-accessed database such as Films on Demand. Examples: Freedom Riders, directed by Stanley Nelson; Finding Your Roots, with Henry Louis Gates, Jr.

As you gather information, check in frequently with your professor, who will guide you throughout the research process. Many professors require an annotated bibliography near the end of the researching phase so that they can make sure that you have the right kinds and amounts of sources for your project.

When you first begin your research, you'll find many more sources than you will be required to cite in your project. Your job is to skim all of the relevant sources you find, or to read their abstracts (a brief summary), so that you can get a sense of what the body of research says about your topic or how it answers your research question.

Once you have a good sense of that, you need to pick what you think are the best representatives of that body of research and get to know them. These will likely be the sources you'll use in the final project. Don't just pick the minimum number of required sources. Students who do this often get sub-optimal grades because their sources don't really help them understand the topic.

#### Using Databases

While library catalogs can help you locate print and electronic book-length sources, as well as some types of non-print holdings, such as CDs, DVDs, and audiobooks, the best way to locate shorter sources, such as articles in magazines, newspapers, and journals, is to search online databases accessible through a portal to which your college's library subscribes.

In many cases, the full texts of articles are available from these databases. In other instances, articles are indexed, meaning there is a summary and publication information about the article, but the full text is not immediately available in the database; instead, you may find the indexed article in a print periodical in your college's library holdings, you can use a service that searches other college universities in the area, or you can submit an online request for an interlibrary loan, and a librarian will email a digitized copy (often as a PDF) of the article to you.

When searching for sources using a password-protected portal, such as a state university system's virtual library, it's important to understand where and how to look up your topic.

Many university school libraries have something on their homepage called the "Discover" tool, which allows you to search many (but not all) databases at once. If you don't find useful sources using the portal's general search bar, then...
you may retrieve better results by going to specific databases within the portal. Many college library websites have online video tutorials that show you how to search the databases.

Library Databases

Here is Georgia State Library's video tutorial about how to search in the databases: Research Databases at GSU Libraries

As these tutorials show, on a library homepage or portal such as GALILEO, you can choose specific databases by going to "Databases A-Z" or "Databases by Subject."

Databases may be general, including many types of resources on a broad range of subjects, or they may be specialized, focusing on a particular format of resource or a specific subject area. The following list describes some commonly used indexes and databases accessible through libraries' research portals.

- ProQuest Central includes a wide variety of newspaper and scholarly articles
- Academic Search Complete includes articles on a wide variety of topics published in various forums, both scholarly and popular.
- Opposing Viewpoints includes articles, statistics, and recommended websites related to a wide range of controversial issues.
- Nexis Uni has articles from newspapers and other periodicals, news transcripts, and business and legal information.
- Business Source Complete comprises business-related content from magazines, journals, and trade publications.
- Films on Demand has streaming video of documentaries and historic newsreels.
- Artstor has high-quality images of works of visual art of various media, as well as information on the creators, subjects, materials, and holdings of artworks.
- JSTOR includes full-text scholarly secondary sources, including books and articles, as well as primary sources on a wide variety of topics, mostly in the humanities and social sciences.
- History Reference Center has full-text articles from reference books, encyclopedias, and scholarly journals as well as images and streaming videos on most of the world's cultures and time periods.
- Gale Literary Sources includes full-text print and electronic sources relevant to literature, such as biographies of authors, reviews of works, overviews of plots and characters, analyses of themes, and scholarly criticism.
- Science and Technology Collection has full-text articles from journals in various scientific and technical fields.
- MEDLINE, CINAHL, and Consumer Health Source contain articles in medicine and health.

Sometimes you will know exactly which source you are looking for, as in the case of your instructor or another writer referencing that source. Having the author (if available), title, and other information about the source included in an end-of-text citation will help you to find that source.
As you go through the process of gathering sources, you will likely need to find specific sources referenced by others to build your list of useful sources; use the steps above to help you do this. However, keep in mind that, especially when you first start researching, you will also need to find sources about your topic having little or no idea what sources are out there. Therefore, rather than authors and titles, you will need to enter keywords, or subject search terms, related to your topic. The next section instructs you on how to do that.

**Entering Search Terms**

One of the most important steps in conducting research is to "learn how to speak database," as the GSU video shows. To find reliable sources efficiently, you must identify single words or phrases that represent the major concepts of your research, that is, your keywords, or subject search terms. Your starting points for developing search terms are the topic and the research questions you identify, but you should also think of synonyms for those terms. Furthermore, as you begin searching for sources, you should notice additional terms in the subjects listed in the records of your results. These subjects will help you find additional sources.

As Jorge used his library’s catalog and databases, he worked to refine his search by making note of subjects associated with sources about how the NCAA treats its athletes. His search helped him identify the following additional terms and related topics to research:

- student athlete unionizing
- student athlete image licensing rights
- NCAA food allowance

**Consulting a Librarian**

Sifting through library stacks and database search results to find the information you need can be like trying to find a needle in a haystack. Knowing the right keywords can sometimes make all the difference in conducting a successful search.

If you are not sure how you should begin your search, or if your search is yielding too many, or too few, results, then you are not alone. Many students find this process challenging, although it does get easier with experience. One way to learn better search strategies is to consult a reference librarian and watch online tutorials that research experts have created to help you. If you have trouble finding sources on a topic, consult a librarian, in person, over the phone, or through a college library’s chat function.

Librarians are intimately familiar with the systems that libraries use to organize and classify information. They can help you locate a particular book in the library stacks, steer you toward useful reference works, and provide tips on how to use databases and other electronic research tools.

Take the time to see what resources you can find on your own, but if you encounter difficulties, ask for help. Many academic librarians are available for online chatting, texting, and emailing as well as face-to-face reference consultations.

To make the most of your time with a librarian, be prepared to explain to the librarian the assignment and your timeline.
as well as your research questions and ideas for keywords. Because they are familiar with the resources available, librarians may be able to recommend specific resources that fit your needs and tailor your keywords to the search tools you are using, and they can help you track down and obtain sources at other institutions.

GSU Library Resources

- Requesting items from other GSU libraries: https://www.youtube.com/watch?v=mPMjPSdXa5M
- Requesting items from USG libraries: https://www.youtube.com/watch?v=HzQ-ua9KkRs&t=4s

Exercise: Searching for Sources

Step 1

At the Library of Congress website opens in new window, search for results on a few terms related to your topic.

Review your search results to identify at least six additional terms you might use when you search for sources using your college library's catalog and databases.

Step 2

Visit your library's website or consult with a librarian to determine which databases would be useful for your research. Identify at least two relevant databases. Conduct a keyword search in these databases to find potentially relevant sources for your topic. Also, search your college's online library catalog. If the catalog or database you are using provides abstracts of sources, then read them to determine how useful the sources are likely to be.

Print out, email to yourself, or save your search results.

Step 3

In your list of results, identify three to five sources to review more closely. If the full text is available online, set aside time to open, save, and read it.

If you can, visit the library to locate any sources you need that are only available in print. If the source is not available directly through your school's library, then use the library's online tool to request an interlibrary loan of the source: librarians will send the source in digital form to your email address for you to open and save, or they will send it in print form to your campus library for you to check out.
**Turn in**

Cut and paste the following into a document, fill out the answers, and turn it in:

**TOPIC:**

**SIX TERMS FROM LIBRARY OF CONGRESS:**

**TWO DATABASES:**

**FIVE SOURCES:**

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**Evaluating and Processing Your Sources**

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**Determining Whether a Source Is Relevant**

At this point in your research process, you may have identified dozens of potential sources. It is easy for writers to get so caught up in gathering sources that they forget to ask themselves how they will use these resources in their research. Now is a good time to get a little ruthless. Reading and taking notes takes time and energy, so you will want to focus on the most relevant sources.

You may benefit from seeking out sources that are current, or up to date. Depending on your topic, sources may become outdated relatively soon after publication, or they may remain useful for years. For instance, online social networking sites have evolved rapidly over the past few years. An article published in 2002 about this topic will not provide current information.

On the other hand, a research paper on elementary education practices might refer to studies published decades ago by influential child psychologists. When using websites for research, look on the web page to see when the site was last updated. Many non-functioning links are a sign that a website is not regularly updated. Do not be afraid to ask your instructor, tutors, and librarians for suggestions if you find that many of your most relevant sources are not especially reliable, or that your most reliable sources are not relevant.

To weed through your collection of books and articles, skim their contents. Read quickly with your research questions and subtopics in mind. The following tips explain how to skim to get a quick sense of what topics are covered. If a book or article is not especially relevant, put it aside. You can always come back to it later if you need to.

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Two Panels start copy
Tips for Skimming Books

- Read the book cover and table of contents for a broad overview of the topics covered.
- Use the index to locate more specific topics and see how thoroughly they are covered.
- Flip through the book and look for subtitles or key terms that correspond to your research.

Tips for Skimming Articles

- Journal articles often begin with an abstract or summary of the contents. Read it to determine the article's relevance to your research.
- Skim the introduction and conclusion for summary material.
- Skim through subheadings and text features such as sidebars.
- Look for keywords related to your topic.

Determining Whether a Source Is Reliable

All information sources are not created equal. Sources can vary greatly in terms of how carefully they are researched, written, edited, and reviewed for accuracy. Common sense will help you identify obviously questionable sources, such as tabloids that feature tales of alien abductions, or personal websites with glaring typos. Sometimes, however, a source's reliability, or lack of it, is not so obvious. To evaluate your research sources, you will use critical thinking skills consciously and deliberately.

Sources you encounter will be written for distinct purposes and with particular audiences in mind, which may account for differences such as the following:

- How thoroughly writers cover a given topic
- How carefully writers research and document facts
- How editors review the work
- What biases or agendas affect the content
- The author's or publication's credentials

A journal article written for an academic audience for the purpose of expanding scholarship in a given field will take an approach quite different from a magazine feature written to inform a general audience. Textbooks, hard news articles, and websites approach a subject from different angles as well. To some extent, the type of source provides clues about its overall depth and reliability. Use the following descriptions of types of sources to help you determine the quality of your sources.

- High Quality/Credible Sources provide the most in-depth information. They are written and reviewed by subject-matter experts. Examples: books published by university presses and articles in scholarly journals, such as Mosaic: A Journal for the Interdisciplinary Study of Literature; trade books and magazines geared toward an educated general audience, such as Smithsonian Magazine; government documents; documents by reputable organizations, such as universities and research institutes.
- Varied Quality Sources are often useful; however, they do not cover subjects in as much depth as high-quality sources, and they are not always rigorously researched and reviewed. Some, such as popular magazine articles or company brochures, may be written to market a product or a cause. Textbooks and reference books are usually
reliable, but they may not cover a topic in great depth. Use them with caution. Examples: news stories and feature articles (print or online) from reputable newspapers, magazines, or organizations, such as The New York Times or the Public Broadcasting Service; popular magazine articles, which may or may not be carefully researched and fact checked; documents by businesses and nonprofit organizations.

- The author's or publication's credentials

Questionable Sources are often written primarily to attract a large readership or to present the author's opinions, and they are not subject to careful review. Generally, avoid using these as final sources. If you want to use a source that fits into this category, then carefully evaluate it using criteria below. Examples: loosely regulated or unregulated media content, such as Internet discussion boards, blogs, free online encyclopedias, talk shows, television news shows with obvious political biases, personal websites, and chat rooms. Remember: just because it exists, doesn't mean it's a good or useful source.

Even when you are using a type of source that is generally reliable, you will still need to evaluate the author's credibility and the publication itself on an individual basis. To examine the author's credibility, that is, how much you can believe of what the author has to say, examine his or her credentials. What career experience or academic study shows that the author has the expertise to write about this topic? Keep in mind that expertise in one field is no guarantee of expertise in another, unrelated area. For instance, an author may have an advanced degree in physiology, but this credential is not a valid qualification for writing about psychology. Check credentials carefully.

Just as important as the author's credibility is the publication's overall reputability. Reputability refers to a source's standing and reputation as a respectable, reliable source of information.

An established and well-known newspaper, such as The New York Times or The Wall Street Journal, is more reputable than a college newspaper put out by comparatively inexperienced students. A website that is maintained by a well-known, respected organization and regularly updated is more reputable than one created by an unknown author or group.

Whenever you consult a source, always think carefully about the author's or authors' purpose in presenting the information. Few sources present facts completely objectively. In some cases, the source's content and tone are significantly influenced by biases or hidden agendas.

Bias refers to favoritism or prejudice toward a particular person or group. For instance, an author may be biased against a certain political party and present information in a way that subtly or not so subtly makes that organization look bad. Bias can lead an author to present facts selectively, edit quotations to misrepresent someone's words, and distort information.

Hidden agendas are goals that are not immediately obvious but influence how an author presents the facts. For instance, an article about the role of beef in a healthy diet would be questionable if it were written by a representative of the beef industry or by the president of an animal-rights organization. In both cases, the author would likely have a hidden agenda.

Jorge's Research Paper

As Jorge conducted his research, he read several research studies in which economists studied possible methods by
which colleges could use money generated by television contracts with the NCAA to pay student-athletes. He also noticed that many popular articles which argued against paying student athletes depended on information they received from the NCAA, which he considered a biased source. Jorge read these studies with a critical eye, knowing that a hidden agenda might be shaping the writers' conclusions.

Summary

In sum, to evaluate a source, you should consider not only how current the source is but also criteria such as the type of source, its intended purpose and audience, the author's (or authors') qualifications, the publication's reputation, any indications of bias or hidden agendas, and the overall professionalism of the source's language, ideas, and design. You should consider these criteria as well as your overall impressions of the source's quality. Read carefully, and notice how well authors present and support their statements. Stay actively engaged: do not simply accept a source’s words as truth.

The sorting process takes time as you move from having a lot of sources to really getting to know and quoting from the sources you rely on most for your project (or the minimum number of sources you need to use for this assignment). Think of a sideways cone with the open end on the left, and the narrow, closed end on the right. At the open end is all of the sources that you initially gathered and skimmed: the good, the maybe useful, the irrelevant. As you get to know the body of research about your topic, you will start to pick sources that represent different aspects or categories/subtopics of the broader topic. Each time you move closer to the narrow end of the cone, you'll pick and really get to know those representative sources.

The critical thinking skills you use to evaluate research sources as a student are equally valuable when you conduct research on the job. If you follow certain periodicals or websites, you have probably identified publications that consistently provide reliable information. Reading blogs and online discussion groups is a great way to identify new trends and hot topics in a particular field, but these sources should not be your final sources if you're doing substantial research.

Exercise: Evaluating a Source

Chose a source you found that you think is relevant, but you're unsure if it's reliable.

Answer the following questions about the source:

• Can you establish that the author is credible and the publication is reputable?
• Does the author support ideas with specific facts and details that are carefully documented? Is the source of the author's information clear? When you use secondary sources, look for sources that are not too removed from...
primary research.

- Does the author leave out any information that you would expect to see in a discussion of this topic?
- Does the source include any factual errors or instances of faulty logic?
- Do the author's conclusions logically follow from the evidence that is presented? Can you see how the author gets to one point from another?
- Is the writing clear and free from errors, clichés, and empty buzzwords?
- Is the tone objective, balanced, and reasonable? Does the source convey any biases? Be on the lookout for extreme, emotionally charged language.
- Based on what you know about the author, is he or she likely to have any hidden agendas?
- Is the source's design professional? Are graphics informative, useful, and easy to understand? If the source is a website, is it well organized, easy to navigate, and free of clutter like flashing ads and unnecessary sound effects?
- Is the source contradicted by information you found in other sources? If so, it is possible that your sources are presenting similar information but taking different perspectives, which requires you to think carefully about which sources you find more convincing and why.

Be suspicious, however, of any source that presents facts you cannot confirm elsewhere.

Keeping Track of Sources

As you determine which sources you will rely on most, it is important to establish a system for keeping track of your sources and taking notes. There are several ways to go about it, and no one system is necessarily superior. Here's what matters: you keep materials in order; record bibliographical information you will need later, and take detailed, organized notes.

Think ahead to a moment a few weeks from now, when you've written your research paper and are almost ready to submit it for a grade. There is just one task left: writing your list of sources. As you begin typing your list, you realize you need to include the publication information for a book you cited frequently. Unfortunately, you already returned it to the library several days ago. You do not remember the URLs for some of the websites you used or the dates you accessed them, or information that also must be included in your bibliography. With a sinking feeling, you realize that finding this information and preparing your bibliography will require hours of work.

This stressful scenario can be avoided. Taking time to organize source information now will ensure that you are not scrambling to find it at the last minute. Throughout your research, record bibliographical information for each source as soon as you begin using it.

You may use pen-and-paper methods, such as a notebook or note cards, or maintain an electronic list. (If you prefer the latter option, many office software packages include separate programs for recording bibliographic information.)
The following table shows the specific details you should record for commonly used source types. Use these details to develop a working bibliography, a preliminary list of sources that you will later use to develop the references section of your paper. It will save you time later on to record, from the start, all information you will need about your sources to create a Works Cited page. The following lists what you should record for some common types of sources. Your research may involve other types of sources not listed below. For more information on formatting citations, consult the APA website at http://www.apa.org or the MLA Guide on the MLA Style Center. Online writing labs (OWLs), such as the Excelsior Online Writing Lab.

1. Book: the author(s), title, subtitle, publisher, city of publication, and year of publication.

2. Work (e.g., article) in an anthology (i.e., book): the work's author(s), title, and subtitle; the book's title, subtitle, editor(s); any edition and volume numbers of the book; the book's publisher, city of publication, and year of publication; the pages on which the work appears in the book.

3. Periodical: the author(s), title of the article, title of the publication, date of publication, volume and issue number, and range of page numbers of the article.

4. Online source: the author(s); the title of the work or web page; the title of the website; the organization that sponsors the website; the database name; the date of publication or date of last update; the date you accessed the source.

5. Interview: the name of the person interviewed; the method of communication (e.g., in-person, video chat, email, or phone call); the date of the interview.

As you conduct research, you may wish to record additional details, such as a book's call number, the contact information for a person you interviewed, or the URL of an online source. That will make it easier for you to quickly locate the source again. You may also wish to assign each source a code (e.g., a number, letter, symbol, or color) to use when taking notes.

Taking Notes Efficiently

Writers sometimes get caught up in taking extensive notes, so much so that they lose sight of how their sources help them to answer their research questions. The challenge is to stay focused and organized as you gather information from sources. Before you begin taking notes, take a moment to step back and remind yourself of your goal as a researcher: to find information that will help you answer your research questions. That goal will determine what information you record and how you organize it. When you write your paper, you will present your conclusions about the topic supported by research. Therefore, you do not need to write down every detail of your sources; some of the information in relevant sources will be irrelevant to your research questions.

There are several formats you can use to take notes. No technique is necessarily better than the others; it is more important to choose a format you are comfortable using. Choose a note-taking method from among those listed below that works best for you, and use it as you gather sources. Using the techniques discussed in this section will prepare you for the next step in writing your research paper: organizing and synthesizing the information you find.

- **Use index cards.** This traditional format involves writing each note on a separate index card. It takes more time than copying and pasting into an electronic document, which encourages you to be selective in choosing which ideas to record. Recording notes on separate cards makes it easy to later organize your notes according to major topics. Some writers color-code their cards to make them even more organized.

- **Maintain a research notebook.** Instead of using index cards or electronic note cards, you may wish to keep a notebook or electronic folder, allotting a few pages (or one file) for each of your sources. This method makes it easy...
to create a separate column or section of the document where you add your responses to the information you encounter in your research.

- **Annotate your sources.** This method involves making handwritten notes in the margins of sources that you have printed or photocopied. If using electronic sources, you can make comments within the source document. For example, you might add comment boxes to a PDF version of an article. This method works best for experienced researchers who have already thought a great deal about the topic because it can be difficult to organize your notes later when starting your draft.

- **Use note-taking software.** There are many options for taking and organizing notes electronically. These include word-processing software that you can use offline on a computer. They also include tools and apps like Diigo, Evernote, Notability, and Mindomo, available on the Web for free or reduced prices if you will use the tool for educational purposes. Although you may need to set aside time to learn how to use them, digital tools offer you possibilities that handwritten note cards do not, such as searching your notes, copying and pasting your notes into your paper, and saving and sharing your notes online.

Whether you use old-fashioned index cards or organize your notes digitally, you should keep all your notes in one place, and use topic headings to group related details. Doing so will help you identify connections among different sources. It will also help you make connections between your notes and the research questions and subtopics you identified earlier. Throughout the process of taking notes, be scrupulous about making sure you have correctly attributed each idea or piece of information to its source. Always include source information or use a code system (e.g., numbers, letters, symbols, or colors) so you know exactly which claims or evidence came from which sources.

Effective researchers make choices about which types of notes are most appropriate for their purpose. Your notes may fall into three categories:

- **Summary notes** sum up the main ideas in a source in a few sentences or a short paragraph. A summary is considerably shorter than the original text and captures only the major ideas. Use summary notes when you do not need to record specific details but you intend to refer to broad concepts the author discusses.

- **Paraphrased notes** restate a fact or idea from a source using your own words and sentence structure.

- **Direct quotations** use the exact wording used by the original source and enclose the quoted material in quotation marks. It is a good strategy to copy direct quotations when an author expresses an idea in an especially lively or memorable way. However, do not rely exclusively on direct quotations in your note taking.

**Summarizing and paraphrasing** as you take notes is usually a better strategy than copying direct quotations because it forces you to think through the claims and evidence in your source and to understand it well enough to restate it. In short, these methods of note-taking help you to stay engaged with your topic instead of simply copying and pasting text from sources. Using them will help you when you draft your paper.

Paraphrase ideas carefully, and check your paraphrased notes against the original text to make sure you have restated the author's ideas accurately.

Use quotation marks to set off any words or phrases taken directly from the source. With direct quotations, again, make sure your notes accurately reflect the content of the original text: check that quoted material is copied verbatim. If you omit words from a quotation, use ellipses to show the omission, and make sure the omission does not change the author's meaning. If you add your own responses and ideas to your notes, mark them as such so that your own thinking about the topic stands out from ideas you summarized or paraphrased.