Establish *Ethos* through Research

Although the words "research paper" sound imposing to many students, research is really a natural part of your experience. You do research every day, often without being aware of the process, whether it is determining the calorie count of a serving of sugar-free ice cream or calculating the dollar amount you will spend on gasoline for a weekend trip. The information gathering you do for a research paper builds on the informal research skills you already have by adding additional places you look to for information and additional tools to use in that search. Today, researchers have available to them a staggering array of sources, including the traditional—library books and reference books—and newer online sources through library databases and websites.

Researching rhetorically, the title of this chapter, is to make use of your ethos or credibility as a writer by incorporating your expert knowledge because of everyday experiences and the subjects you have studied. It also involves maximizing and also "borrowing" the credibility of source materials you quote or paraphrase in your text. When you quote or paraphrase an expert, your paper gains authority that it would not otherwise have. For example, if you are the parent of a child with Attention Deficit Hyperactivity Disorder (ADD), your experiences caring for that child and interacting with the health care and educational systems, as well as the reading you have done to seek out effective treatment, qualifies you to speak with authority about what it is like to raise such as child. If you are writing a paper about educational options for children with ADHD, you can cite some of your own experiences, but you will also want to quote or paraphrase opinions of authorities about the best ways to provide a quality educational environment. These opinions of experts can be found in books, periodicals, and possibly government documents, and including them will increase your power to convince an audience.

Academic research begins with what you know. If you've asked to write a paper on the environment, you probably know quite a few things about the environment already. Perhaps you belong to the local Sierra Club or other environmental organization or perhaps you are aware of a significant environmental issue in your community. In El Paso, for example, Asarco, a mining and smelting company, is attempting to reopen a copper smelting plant, closed since 1999, which is located on the Texas/Mexico border not far from the city's downtown. Recently, the Texas Commission on Environmental Quality granted Asarco a five-year air-quality permit, which would allow

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Asarco to resume copper smelting, though the reopening is opposed by community leaders. This topic would make an excellent research paper, particularly because there are arguments on both sides, in addition to the company's profit motive. Proponents say the reopening will return much-needed jobs to the city which were lost when the plant closed, while opponents claim that the plant will belch pollutants into the air, worsening the city's air quality.

Your own mind is often the best place to begin your research, as you probably have general knowledge of several contemporary topics, though they may not be at the forefront of your mind. The invention techniques discussed in Chapter 5 can help you access information recorded in your memory. Of course, information from general knowledge or personal experience is raw material that must be organized and refined in the writing process, so that its use enhances your *ethos* as a writer.

How do you go about finding the best reference sources to support your general knowledge? A key factor to keep in mind is the credibility of each of the sources you choose. Citing information from a source written in the last three years is generally more credible than from one published ten years ago because the information is obviously more current. Peer-reviewed journals and books published by reputable publishers are probably the most credible sources. Information from news magazines such as *Time, Newsweek,* or *U.S. News and World Report* has more credence than that from a popular magazine such as *Glamour* or *People* which are designed for entertainment rather than covering the news. Indeed, many instructors will forbid the use of Wikipedia as a source, not because all the information is inaccurate (because it is not) but because the reader has no way of evaluating whether information is correct or not since the entries were written by volunteers, and the content has not been vetted by a reputable publisher or other authoritative organization

Don't be reluctant to ask for help. Your instructor may be willing to suggest resources on your topic, as will librarians. Instructors may refer you to specific books or authors. Others will demonstrate a Nexis journal search for you, in the process finding you valuable sources. Librarians also can be valuable allies in your search, as their job is to serve your needs as a library patron. If you ask for help, a librarian will often run a search for you in the online catalog or may even walk with you into the stacks to find appropriate source materials.

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Primary and Secondary Research

If you've bought a stereo lately, chances are you did some research when you decided which brand you would buy. To begin with, you already had some knowledge of stereo systems and brand names. Maybe you heard someplace that a particular receiver was good or that a certain speaker had a tendency to blow a woofer at high volumes. You listened to friends' stereos and you knew which brands are popular and which produce clear sound. You didn't have to look in a book for that information. It is just part of your everyday knowledge. You may not use it everyday, but it's there when you need it.

Once you explored your knowledge of stereos by thinking about what you already knew, you probably visited a stereo showroom and listened to several stereos. Maybe you asked the salesperson about the model you were interested in, and asked friends about their stereos and how much they liked them. You might have consulted a buying guide that rates stereo equipment and gave you suggestions on the sound quality, reliability, and value of several different stereos. You might also have looked at a few reviews of equipment in magazines at a local bookstore. If you did any or all of these things, then you are already familiar with basic primary and secondary research.

Primary research involves personal interaction with your subject. Interviews from people on the scene of an event, questionnaires, and observation are all primary sources. Novels, poems, diaries, and fictional films are also primary sources because they stand alone and are not interpreting anything else. To return to the stereo analogy, when you listened to various stereos, you were doing primary research. When you asked people for opinions or read a buying guide, you were doing **secondary research**. Similarly, when you read a *Time* magazine article which analyzes climate change and quotes prominent experts in the field, you are consulting secondary research.

A little later in this chapter is a profile assignment that asks you to interview and observe someone who has some unusual life experience or interesting attribute. You may be able to gather all the information you need for this assignment by doing an interview and filling out the observation form in this chapter. If you have known the person previously, you may add references to that prior knowledge.

Other writing assignments ask you to combine your own experience or primary research with information gained from secondary research

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in books or periodicals. For example, you might be asked to write an essay about recycling. You can include your own experience with recycling or visit a recycling center in your community and report what you see. You can also support this primary research with secondary research in books or periodicals in which authorities offer facts and opinions about the effectiveness of recycling. In addition, you can interview an authority on recycling, perhaps a professor or chairperson of a community committee, an additional secondary source.

You may notice that many magazine articles or books refer to other books, statistical studies, or additional evidence but do not document sources in the text or give a bibliography. In this course, however, your instructor will probably ask you, when using outside references, to document them following the Modern Language Association (MLA) format. The purpose is to train you in academic writing, which differs in conventions from journalism or popular writing in that all sources are credited both in the text and in a works cited page. Documentation also benefits those who read your essays and might want to use the same sources for additional research of their own. It is, therefore, not a check against plagiarism but an important tool for other researchers.

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Interviews

Depending on your topic, your community probably has some excellent sources sitting behind desks at the nearest college, city hall, or federal office building. If you are looking into the environment, you could contact the Environmental Protection Agency, an attorney who specializes in environmental law, a professional employee of the park system or the Bureau of Land Management, a college professor who works in the natural sciences, or a group in your area dedicated to beautification and restoration efforts. If you don't know anyone connected with these organizations, a look in the yellow pages or blue government pages of the phone book should give you the information you need.

When you contact the person you'd like to **interview**, identify yourself and your reason for wanting to speak with him or her. Most people are happy to assist college students in their research, and almost everyone is flattered by the attention. If your first choice refuses, ask him or her if they know anyone who might be knowledgeable about your topic and available for an interview. When you get a positive response, arrange an hour and a location convenient to both of you. If the interview is scheduled more than a

week from the initial contact, you can write a letter confirming your appointment, or you can call the day before the scheduled interview to confirm the time and location.

Once you've scheduled the interview, make a list of questions you ask your interview subject. There are two types of questions you can ask your subject: open and closed. **Open questions** such as the following leave room for extended discussion because they don't have a yes, no, or specific answer:

> Could you tell me about the most positive experience you've had with [topic]?
>
> When did you decide to study [topic]?
>
> What's the most negative experience you've had with [topic]?

Questions like these allow for extended discussions. Even if it seems your subject has finished his or her response to the question, let a few moments of silence pass before you ask another question. Silence can be uncomfortable for some people, and he or she might feel compelled to expand on the response to your question in interesting ways.

Closed questions are useful for gathering specific information. Questions such as "When did you graduate?" and "How long have you been involved in [topic]?" are closed questions. Although closed questions are important to an interview, be sure they're balanced by questions that allow your subject room to talk and expand on his or her ideas.

Before the interview, confirm the exact location of your appointment. If you are unfamiliar with the planned meeting place, go by the day before to make sure you can find it. Take several pens or pencils with you to the interview in addition to a writing tablet with a stiff back. If possible, use a cassette recorder to tape the interview. Be sure to ask your subject if it is okay for you to tape. Most people will allow taping, if you assure them that the recording is only for your use in collecting information for your research paper. If you plan to record the interview, install fresh batteries and use a tape long enough to continue the interview for at least a half an hour past your planned length of the interview. If you are using a recorder, test its operation before you get to the interview location so you won't have any surprises when you're with your subject or discover later that the machine was not recording.

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Although you've prepared a list of questions you'll want to follow, don't be afraid to ask a question that isn't on your list. If your subject mentions briefly an experience that seems relevant to your topic, you might want to ask him or her more about that experience, even though it isn't on your list of questions. Indeed, the best way to interview may be to read over your questions just before you meet your subject, then not refer to them during the interview. Before you leave, however, look over your list to see if you have missed any questions of importance. Remember to let lulls in the conversation work for you by drawing your interview subject into further explanations or illustrations of previous comments. If you interview a talkative person who strays from the topic, try to steer him or her back to the questions you've prepared, but if you can't, don't worry. You'll probably get useful information anyway. Be courteous and attentive. Even if you're recording the interview, take notes. It makes both the subject and the interviewer feel more comfortable and serves as a backup, should your recording not work.

Within fifteen minutes after leaving the interview, jot down some notes about your subject's appearance; the sights, sounds, and smells of the place where you conducted the interview; and any overall impressions of the meeting. Make sure you have the date and location of the interview in your notes because you will need it for documentation on your works cited page.

Observation

Close **observation** for descriptive detail can enhance almost any topic. If you are writing a paper on the effectiveness of recycling in your community, you might take a trip to your community's processing area for recycled glass. There you could gather information through senses about the glass process. You might also be able to conduct short, informal interviews with the employees about the process.

You may need to call to get permission to visit certain places. You'll need to identify yourself and your topic. Usually you can get permission to visit and observe. However, if you cannot get permission to visit an area, you can ask your contact if there is a similar area nearby. Again, look at your research questions before you visit to decide which questions might be answered by your observations. For example, if you have read about recycling centers in other communities, during your visit to the local center, you could observe the similarities and differences in their procedures. Good writers always have more detail than they actually use, so they have choices about what to include.

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The key to successful observation is tuning the senses. Can you remember what your room smelled like when you woke up this morning, the first thing you saw when you opened your eyes, the way your sheets or blanket felt against your skin, the sounds in the room after you turned off your alarm, or the taste of orange juice or coffee you had with breakfast? Our minds are trained to ignore seemingly unimportant information, so if you can't remember any sensory details from your morning, you're not alone. When conducting an observation, however, those sensory responses are an important part of your research. Sitting in the place you're observing, freewrite for at least five minutes on each of the senses: touch, taste, smell, sight, and sound. You might even freewrite on each of the senses from several different vantage points, depending on the size of the place or event you're observing. Take notes on the responses given to you from anyone you speak with.

Within fifteen minutes after you've left the place you've been observing, take a few minutes to read over your notes and write a few overall impressions or add details you've missed in your description. Look again at your research questions and decide which ones have been answered by your visit.

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Secondary Research Sources Professors Expect

You have been assigned a research paper or project. What does your professor expect of you? First of all, that you understand the assignment: What specifically does your professor want you to research? Do you have instructions about what kinds of sources your professor wants? Are restrictions put on what Internet or database sources you can use? Possibly, your instructor has specified that you need to use books, journals, major magazines and newspapers, and certain web-based information. This means that you are to use reputable sources to obtain a balanced, impartial viewpoint about your topic. So, how do you find these sources?

Books: In these days of easy-to-find resources on the Internet, students may wonder why to bother with books at all. However, scholarly books treat academic topics with in-depth discussion and careful documentation of evidence. College libraries collect scholarly books that are carefully researched and reviewed by authorities in the book's

field. Look for recently published books rather than older books, even if they are on your topic. Academic books or well-researched popular books often have bibliographies or lists of additional references at the end of the book. These lists are useful for two reasons: first, if such lists of books are present, it is a good clue this is a well-researched book, and, second, it gives you a ready list of other possible resources you can consult for your research project.

Scholarly journals: Just having the word "journal" in the title does not mean it is a journal. *Ladies Home Journal,* or the *Wall Street Journal,* for example, are not journals. Your instructor means peer-reviewed journals in which the authors have documented their sources. Peer-reviewed means that articles have been reviewed by experts in the field for reliability and relevance before being published. Your library should have print indexes to journals in which you can look up your topic. You may also be able to find journal articles—sometimes in full text—through the online databases offered by your college library.

Major magazines and newspapers: These publications report the news based on actual observation of events and interviews with experts and also present informed editorial opinions. Examples are magazines, such as *Time, Newsweek,* and *U.S. News and World Report;* newspapers such as the *New York Times,* the *Boston Globe,* the *Wall Street Journal,* and the *Washington Post.* You can locate full-text articles directly from the online versions of major print magazines and newspapers. Often, these publications charge a fee for articles not published recently. However, you can often find the same articles free through one of your library databases.

Special Interest Publications: These are periodicals that focus on a specific topic but are written for a wider audience than are scholarly journals. Authors of articles base their articles on interviews with experts, recent scholarly books and journals, and other reputable sources. Examples include *Psychology Today* and *Scientific American*.

Government Documents: Government documents present a wealth of information for many contemporary events and issues. Your library may be a federal depository, which means that users can locate many

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federal documents onsite. If so, you can look up government sources in the online library catalog. Government documents are also available though online databases.

Encyclopedias: Encyclopedias can be useful to browse when you are looking for topics. They are also helpful for providing background information such as dates when events occurred. However, most instructors prefer that you do not use encyclopedias as sources you cite in your paper. This is particularly true for Wikipedia, the online encyclopedia that is assembled by volunteers who have specialized knowledge on topics and, thus, has no systematic vetting of the contents. However, Wikipedia entries often include bibliographies which can be useful in pointing you to books, articles, or other websites which can be used as references.

Internet: The problem with web-based information is that anyone with some knowledge of computers can put up a website on the Internet. Thus, information from websites must be carefully evaluated as to author, publishing organization, etc. One way to deal with this problem is to find web information through the librarian-generated indexes and search engines which screen websites for credibility (See list later in this chapter).

As you use the categories above to find sources for your paper or project, realize that your topic influences your choice of reference materials. If you are writing about a literary topic such as Shakespeare's *Othello*, you will find a number of relevant books and journal articles. If your topic is more contemporary, such as the current status of the country's housing market, you may be able to find some books or journal articles for background information, but you will need to use recent magazine and newspaper articles to find the latest information.

As you examine your sources, remember that gathering the information should help you discover what you think about your topic, not just what others think. This will enable you to create a paper based on your ideas and opinions, with source materials supporting your position.

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Employ Computerized Library Catalogs

Public Access Catalogs (PACs) or computerized catalogs have replaced card catalogs. A library computerized catalog provides bibliographical information about the library's collection, including thousands of books, photos, videos, journals, and other items. Generally, catalogs can be accessed by keyword, subject, author, title, and call number. You may also find books which are available in digital form through the catalog. In addition, on the library home page, you will find links to other information and services such as database searches, interlibrary loan, and course reserves.

Types of Computerized Searches

- **Keyword**—*Unless you know the author or title of a book, keyword is the best type of search because it finds the search word or words anywhere in the bibliographical citation.*
  Example: water quality
- **Title**—*Type the exact order of words in the title*.
  Example: History of the United Kingdom
- **Author**—*Type the author's name, putting the last name first. You don't need to include a comm*a.
  Example: Miller Henry J.
- **Subject**—*Type the exact Library of Congress subject heading*.
  Example: Spanish language – Grammar, Historical
- **Call Number**—*Type the exact call number*.
  Example: B851 .P49 2004

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If you have a general topic, you probably want to use the key-word search, for subject search actually refers to the Library of Congress subject-search designations, and, unless you use precisely the search terms specified by that classification system, you may not get the results you want. Using key words, however, will lead you to hits on your topic. Then, once you have found one book that is in your topic area, you can examine the screen for Library of Congress subject headings and click on those to browse for more books.

An invaluable resource of any library is the Interlibrary Loan Department. Here you can request books your library does not own, as well as journal articles from periodicals not in the library's collection or obtainable

through the library's databases. Books and articles are obtained for you by the staff on a minimal or no fee basis. This is extremely helpful because you can request books you find in bibliographies. However, it generally takes seven to ten days to obtain books through interlibrary loan, so you need to plan well in advance. To request an item, you simply go to the Interlibrary Loan Department in your library or fill out a form on the library's website.

Utilize Electronic Library Resources

College and university libraries increasingly rely on databases to provide digital versions of articles published in journals, magazines, newspapers, government documents, as well as other publications and materials. Generally, the databases are available to students and faculty through the Internet via the library home page, though a library card and a password may be required for off-campus access.

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Academic Search Complete is one of EBSCO's popular online databases that can be accessed by students through their library's website. The database indexes full-text articles on a wide variety of topics.

Library databases make use of online forms similar to those of a library computerized catalog. Searches are by subject, title, author, and name of publication. Advanced search features are available. Some databases provide full text of articles published in newspapers, journals, and magazines. Others give publication information only, such as title, author, publication, date of publication, and an abstract of the article. Popular databases include Lexis-Nexis, Academic Search Complete, Periodical Archive Online (ProQuest), Project Muse, and JSTOR.

Find Internet Information

The World Wide Web is an incredible resource for research. Through it, you can find full texts of pending legislation, searchable online editions of Shakespeare's plays, environmental impact statements, stock quotes, and much, much more. Finding credible research sources is not always easy. Anyone with an Internet connection and a little knowledge can put up a webpage and claim to be an expert on a chosen topic. Therefore, information from the Internet must be scrutinized with even more diligence than do print sources. For example, if you enter the word "environment" in one of the keyword search engines, you may receive thousands of "hits," or sites that relate to that topic from all over the world. How do you sift through all of that feedback in order to find information relevant to your topic? It is a problem that has not been completely solved on the Internet.

However, the search engine Google now provides Google Books, http://books.google.com, that offers full-text of millions of books, though usually not full-text of the entire book unless the book is no longer copyrighted. Also, Google Scholar, http://scholar.google.com, provides access to scholarly papers, though if your library has computerized databases, it will likely have a more extensive collection available to you. Also, the Directory of Online Open Access Journals, http://www.doaj.org, enables you to search online journals that offer free access.

One of the best ways for students to find Internet resources is through several indexing projects sponsored by major libraries. In the case of each directory/search tool, librarians have personally reviewed and selected websites that are of value to academic researchers, including both students and faculty. These indexing websites may be organized by subject area, in addition to hav-

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ing keyword search engines. Thus, you might quickly locate the most authoritative websites without having to wade through masses of sites looking for the reliable ones.

> Librarians' Index to the Internet, http://lii.org
> Internet Public Library, http://www.ipl.org
> Infomine, http://infomine.ucr.edu

Government Documents can also be found easily through the Internet and are indexed at a variety of sites, including these:

> FirstGov, http://www.firstgov.gov
> Thomas Legislative Information, http://thomas.loc.gov
> Federal Citizen Information Center, http://www.pueblo.gsa.gov/
> FedWorld.Gov, http://www.fedworld.gov/

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Infomine, http://infomine.urc.edu, is one of the librarian-generated sites on the Internet which collects links to scholarly resources in a variety of fields.

Evaluate Sources

Many people tend to believe what they see in print. They may think that if information is in a book or a news magazine, it must be true. If you read critically, however, you know that all sources must be evaluated. With the Internet, perhaps even more than with print texts, it is important to evaluate your sources. Here are some guidelines to consider when evaluating sources.

- **Who is the author?** This question is equally important, whether the source in question is a book, a magazine, or a website. If you have the dust jacket of the book, the back flap will quickly provide you with essential information to screen the author. In the short biographical sketch, usually included along with a photo, you can learn the author's academic credentials and university affiliation, what previous books the author has published, and other qualification that the publisher thinks qualifies the author to write this particular book. If there is no dust jacket (as is often true with library books), you can try to find information about the author through an Internet search engine or a reference text such as *Contemporary Authors*. A magazine or journal will often provide brief biographical information at the end of the article or on a separate authors' page. If the text is on a website, determining the authorship is more complex, as authors often are not named. In that case, you are forced to rely on the credibility of the entity publishing the website. Many websites have a link called something like "About Us" or "Mission Statement," and that page will give you some idea about the motivations of the entity sponsoring the site. Are they selling something? Is it part of an organization that has a political agenda? These are things to keep in mind when considering the bias of the site's content.
- **For what audience is the text written?** Determining this may require some detective work. In the case of a book, the preface or introduction may give you some clues. With magazines and journals, consider the demographics of the readership. With a website, a little clicking around in the site should tell you from the kind of texts, graphics, and advertising (if any), what readers the site is designed for.
- **What sources does the author rely upon?** If you are working with an academic text, the sources should be clearly cited in the text

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by author and page number, footnotes, or endnotes. If it is a more popular book or article, sources are acknowledged less formally; however, a credible author will still make an effort to credit sources. For example, an article might say, "According to the March issue of the *New England Journal of Medicine*…."

- **Does the text have an obvious bias?** Ask yourself if the argument is logical and if sources are mentioned for any statistics or other evidence. Are any opposing viewpoints discussed fairly? Does the author engage in name calling, a clear sign of bias? Are there obvious holes or contradictions in the argument? For most purposes, you are looking for texts which do not appear to have been written with a biased agenda. However, in some cases, the opposite is true. If you are looking for a political candidate's position on a certain issue, then reading the candidate's book or going to the candidate's website will provide you with a biased viewpoint but one which you can analyze for the purposes of your paper. When dealing with information from sources with an obvious agenda, though, you must be careful not to represent the material as unbiased in your text.
- **What do others think of the text?** For a book, you can look for a review in *Book Review Digest* or *Book Review Index*, two publications you can find in the reference section of the library. Also, the *New York Times* and other newspapers review prominent popular books. Most magazines and newspapers print letters to the editor which may offer comment on controversial articles. The Scout Report, which can be found at the *Scout Project*, http://scout.wisc.edu, reviews selected websites. If you locate a review of your text, you can cite the review in your research paper to provide additional evidence of the text's degree of credibility.

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