

PART IV

THE RESEARCH PAPER

19

Locating, Evaluating, and Integrating Research Sources



©The New Yorker Collection 2000 John Caldwell from cartoonbank.com. All Rights Reserved.

If you're like many of the students we know, **research papers** probably make you nervous. Why, you may wonder, do instructors assign them? Such projects take time, and the payoff, you may feel, doesn't seem worth the effort. If this is how you feel, we hope to show you that conducting research and writing up your findings can be rewarding, even fun.

Aside from enabling you to experience the joys of unearthing useful material during research, writing a research paper enlarges your perspective. As you test your own views against existing evidence, evaluate conflicting opinions, and learn how to detect other people's biases, you acquire analytic skills that will benefit you throughout life. In everyday conversation, most of us feel free to voice all kinds of opinions, even if they're based on nothing more than emotion and secondhand information. Researched opinions, though, are sounder and more logical. They're based on authoritative evidence rather than on limited personal experience, on fact rather than on

hearsay. Simply put, researched opinions emerge from a careful consideration of the evidence.

All of this may sound intimidating, but keep in mind that writing a research paper essentially expands what you already know about writing essays; many of the steps are the same. The two major differences are the greater length of the research paper—usually five or more pages—and the kind of support you offer for your thesis. Rather than relying on your own experience or that of friends or family, you use published information and expert opinion to support your thesis. Even so, writing a research paper can be a challenge. One way to make the project more manageable is to view it as a process consisting of two major phases: (1) the **research stage**, when you find out all you can about your subject and identify a working thesis, and (2) the **writing stage**, when you present in an accepted format what you've discovered. This chapter focuses on the first stage; the next, Chapter 20, examines the second stage. Although we discuss the research process as a series of steps, we encourage you to modify the sequence to suit your subject, your personal approach to writing, and the requirements of a particular assignment.

During the first stage of the research process, you do the following:

- Plan the research
- Find sources in the library and on the Internet
- Prepare a working bibliography
- Take notes to support the thesis with evidence

PLAN THE RESEARCH

Understand the Paper's Boundaries

Your first step in planning the research is to *clarify the project's requirements*. How long is the paper supposed to be? How extensively should you deal with opposing viewpoints? Are there any restrictions about the number and type of sources? Are popular magazines, books, and websites acceptable, or should you use only scholarly sources? Has the instructor limited your subject choices?

Also, be sure you *understand the paper's overall purpose*. Unless you've been assigned a purely informative report ("explain several psychologists' theories of hostility"), your research paper shouldn't simply display all the information you have gathered. Instead of merely patching together ideas from a variety of sources, you should develop your own position, using outside sources to arrive at a balanced but definitive conclusion.

One more point: You should be aware that most instructors expect students to use the third-person point of view in research papers. If you plan to include any personal experiences, observations, or interviews (see the following page and page 581) along with your outside research, ask your instructor whether the use of the first-person point of view would be appropriate.

Understand Primary Versus Secondary Research

You should determine whether your instructor expects you to conduct any **primary research**—information gathered from firsthand observations, personal interviews, and the like. Most college research papers involve **library** or **secondary research**—information gathered secondhand from published print sources or from the Internet (see pages 547–556). Such material includes information derived from published accounts, including statistics, facts, case studies, expert opinion, critical interpretations, and experimental results. Occasionally, though, you may want or be asked to conduct primary research. You may, for example, run an experiment, visit an organization, observe a situation, schedule an interview, or conduct a survey. In such cases of primary research, you'll need to prepare carefully and establish a strict schedule for yourself. (See page 581 for hints on incorporating primary research into a paper.)

Conducting Interviews in Person, by Phone, and by E-Mail

If you plan to go on an information-gathering interview, put some careful thought into how you will proceed. If you use a letter or e-mail message rather than a telephone call to request an interview, get feedback on the message's overall effectiveness before sending it. When you set up your appointment, request enough time (30–60 minutes) to discuss your topic in depth; keep in mind, however, that the person may not be able to set aside as much time as you'd like. If you hope to record the interview, you must obtain permission to do so beforehand. (Some organizations don't permit employees to be recorded during interviews.) Also, when making the appointment, ask if you may quote the person directly; he or she is entitled to know that all comments will be "on the record."

Most important, plan the interview carefully. First, determine what you want to accomplish: Do you want to gather general background material or do you want to clear up confusion about a specific point? Then, well in advance of the interview, prepare a list of questions geared toward that goal. During the interview, though, remain flexible—follow up on interesting remarks even if they diverge somewhat from your original plan. (If you discover that your interviewee isn't as informed as you had hoped, graciously request the names of other people who might help you further.) Throughout the interview, take accurate and complete notes (even if you're recording—equipment sometimes fails!) If certain remarks seem especially quotable, make sure you get the statements down correctly. Finally, soon after the interview ends, be sure to fill in any gaps in your notes.

If a face-to-face interview isn't feasible, a phone interview often will provide the information you need. Don't, however, call the person and expect a phone interview on the spot. Instead, call, explain the kind of help you would like, and see if the person is willing to schedule time to talk at a later date.

Another way to conduct an interview is by e-mail. Your e-mail correspondence should describe the topic you're researching, explain your reasons for establishing contact, and list clearly and concisely the information you would like the interviewee to provide. It's also a good idea to give the date by which you hope he or

she can get back to you. (For additional information about the Internet and e-mail interviews, see pages 547–556).

Conducting Surveys

A survey helps you gather a good deal of information from many people (called “respondents”)—and in a much shorter period of time than would be needed to interview each person individually. Bear in mind, though, that designing, administering, and interpreting a survey questionnaire are time-consuming tasks that demand considerable skill. Be sure, then, to have someone knowledgeable about surveys evaluate both your questionnaire and the responses it evokes.

When you write your survey questions, make them as clear and precise as possible. For example, if your goal is to determine the frequency with which something occurs, do not ask for vague responses such as “seldom,” “often,” and “occasionally.” Instead, ask the respondents to identify more specific time periods: “weekly,” “1–3 times a week,” “4–6 times a week,” and “daily.” Also, steer away from questions that favor one side of an issue or that restrict the range of responses. Consider the following survey questions:

Should already overburdened college students be required to participate in a community-service activity before they can graduate?

Yes _____ No _____ Maybe _____

In your opinion, how knowledgeable are college students about jobs in their majors?

Knowledgeable _____ Not knowledgeable _____

Both of the preceding questions need to be revised. The first, by assuming that students are “already overburdened,” biases respondents to reply negatively. To make the question more neutral, you would have to eliminate the prejudicial words. The second question asks respondents to answer in terms of a simple contrast: “Knowledgeable” or “Not knowledgeable.” It ignores the likelihood that some respondents may wish to reply “Very knowledgeable,” “Somewhat knowledgeable,” and so on.

You should include in your survey only those items that will yield useful information. For example, in a survey of students, you would ask respondents some questions about their age, college year, major, and so forth—as long as you planned to break responses into subgroups. But these questions would be unnecessary if you didn’t intend to analyze responses in such a manner. In any case, be sure to limit the number of questions you ask. If you don’t, you may find that sorting out the responses will be too time-consuming a task.

Unless you’re able to survey every member of the group whose opinions you seek, you must poll a *representative subgroup*. By *representative*, we mean “having characteristics similar to the group as a whole.” Imagine you’re writing a research paper on unfair employment practices. As part of your data collection, you decide to poll students on campus about their job experiences. If you, a first-year student,

give the questionnaire only to students in your introductory courses, your sample won't be representative of the student body as a whole. Upper-level students might have significantly different work experiences and thus quite different opinions about employer fairness. So, to gauge students' attitudes with accuracy, you'll have to hand out your survey in numerous places and on varied occasions on the campus. That way, your responses will be drawn from the whole spectrum of undergraduate backgrounds, majors, ages, and so forth.

This method of collecting student responses still wouldn't amount to what is called a *random sample*. To achieve a random sample, you must choose respondents by a scientific method—one that would, theoretically, give each person in the group to be studied the chance to respond. For example, to survey undergraduates on your campus, you would have to obtain a comprehensive list of all enrolled students. From this list, you would pick names at a regular interval, perhaps every tenth; to each tenth person, you would deliver (or mail or e-mail) a survey, or you would telephone to ask the questions orally. With this method, every enrolled student has the potential of being chosen as a respondent. Survey software such as SurveyMonkey (www.surveymonkey.com) makes it relatively easy to distribute a survey via e-mail and then to analyze the results.

Since there's so much time and, possibly, cost involved in doing a random sample, you'll most likely use an informal method of collecting responses. Using the "street corner" approach, you might hand your survey to passersby or to people seated in classes, in student lounges, and so on. Or, if you're collecting information about the service provided at a particular facility, you might (with permission) place a short questionnaire where respondents can pick it up, quickly fill it out, and return it. Because of your informal methods, your results would be an *approximate* portrait of the group polled; however, the more people you survey, the more accurate your profile of the larger population is likely to be. (See page 581 for hints on incorporating survey results into a research paper.)

Once you're sure of the paper's boundaries and understand your instructor's expectations regarding primary and secondary research, it's time for you to move on. At this point, you'll need to (1) choose a general subject, (2) limit that subject, (3) conduct preliminary research, (4) identify a working thesis, and (5) make a schedule.

CHOOSE A GENERAL SUBJECT

Your instructor may provide a list of acceptable topics for a research paper, or you may be free to select a topic on your own. In the latter case, your second step in planning the research is to *choose a general subject*. If you have an area of interest—say, Native American culture or animal rights—the subject might be suitable for a research paper. If you don't immediately know what you'd like to research, consider current events, journal entries, the courses you're taking, the reading you've done on your own, or some of the selections in this book. A sociology course may have piqued your interest in child abuse or the elderly. Current events might suggest research on immigration or business ethics. Several of your journal entries may

focus on an issue that concerns you—maybe, for example, use of drugs in college athletics. Perhaps you’ve come across a provocative article on genetic engineering or the nation’s health-care crisis. Maybe you find yourself disagreeing with what Clifford Stoll suggests about classroom computer use in “Cyberschool” on page 328 of this book. (In the activities at the end of this chapter, you’ll find a list of suggested research topics derived from the readings in this text.)

If you’re still not sure of what subject to research, do some background reading on several possible general subjects. Also try using one or more prewriting techniques to identify areas that interest or puzzle you. Brainstorming, questioning, freewriting, and mapping (see pages 26–29) should help you generate ideas worth exploring. As soon as you have a list of possible topics, use the following checklist to help you determine which of these subjects would or would not be appropriate for a research paper.



SELECTING AN APPROPRIATE SUBJECT TO RESEARCH: A CHECKLIST

- Will you enjoy learning about the subject for the substantial period of time you’ll be working on the research paper? If you think you might get bored, select another subject.
- Can you obtain enough information on the subject? Recent developments (an ongoing government scandal or a controversial new program to help the homeless) can be investigated only through mass-circulation newspapers and magazines. Books as well as specialized or scholarly journal articles on recent events may not be available for some time.
- Has the topic been researched so often (the legalization of marijuana, violence in sports) that there’s nothing new or interesting left to say about it?
- Is the topic surrounded by unreliable testimony (ESP, UFOs, the Bermuda Triangle), making it unsuitable for a research paper?
- Is the topic (a rock star’s conflict with the recording industry, for example) too trivial for an academic project?
- Does the subject lend itself to or call for research? If it doesn’t, think about selecting another topic. For example, the dangers of smoking are now almost universally acknowledged and so probably wouldn’t make an appropriate topic for a research paper.
- Has the topic been written about by only one major source? If so, your research will be one-sided.
- Can you be objective about your topic? Researching both sides of an issue about which you feel strongly usually deepens your understanding of the issue’s complexity. But if you feel so committed to a point of view that you’ll have trouble considering opposing opinions, it’s best to avoid that subject altogether.

Once you have a general topic in mind, you may want to clear it with your instructor. Or you can wait until the next stage to do so—after you’ve narrowed the topic further.

Prewrite to Limit the General Subject

The next step is to *limit* or *narrow your topic*. “Pollution” is too broad a topic, but “The Effect of Acid Rain on Urban Structures” poses a realistic challenge. Similarly, “Cable Television” is way too general, but “Trends in Cable Comedy” is manageable. Remember, you aren’t writing a book but a paper of probably five to fifteen pages.

Sometimes you’ll know the particular aspect of a subject you want to explore. Usually, though, you’ll have to do some work to restrict your subject. In such cases, try using the prewriting techniques of questioning, mapping, freewriting, and brainstorming described in Chapter 2. Discussing the topic with other people and doing some background reading on your subject can also help focus your thinking. (For more on limiting general subjects, see pages 26–30).

Conduct Preliminary Research

Frequently, you won’t be able to narrow your topic until you learn more about it. When that’s the case, background reading, often called **preliminary research**, is necessary. Just as prewriting precedes a first draft, preliminary research precedes the in-depth research you conduct further along in the process.

At this point, you don’t have to track down highly specialized material. Instead, you simply browse the Internet (see pages 547–556) and skim books and mass-market or newspaper articles on your topic to get an overview and to identify possible slants on your subject. If your broad subject is inspired by a class, you can check out the topic in your textbook. And, of course, you can consult library sources—the *computerized catalog*, the *reference section*, and *periodical indexes* such as the *Readers’ Guide to Periodical Literature*. All of these sources break broad subjects into subtopics, thus helping you focus your research. These and other library resources, discussed in greater detail later in the chapter, are among the most valuable tools available to researchers.

After you locate several promising books or articles on your general subject, glance through the material rapidly to get a sense of issues and themes. Do the sources suggest a particular angle of inquiry? If you don’t find much material on your subject, think about selecting another topic, one about which more has been written.

While conducting preliminary research, there’s no need to take notes, unless you want to jot down possible limited topics. However, you should keep an informal record of the books and articles you skim. In a computer file, in a notebook, or on index cards (one for each source), note the following information: For each book, record the author, title, and call number; for each article, record the

publication, date, and page numbers. Such basic information will help you relocate material later on, when you'll need to look at your sources more closely. Also, it's a good idea to jot down the authors and titles of other works mentioned in the sources you skim. You may decide to consult them at another point. All this information can help you start a working bibliography (see page 556) when you begin your actual research.

Once you arrive at your limited topic—or several possibilities—ask your instructor for feedback, listening carefully to any reservations he or she may have about your idea. Moreover, even though you've identified a limited subject, don't be surprised if it continues to shift and narrow further as you go along. Such reshaping is part of the research process.

Identify a Working Thesis

Once you have done some preliminary research on your limited topic and have determined there's sufficient material available, your next step is to form a **working thesis**—an idea of your own that is in some way original. Having a tentative thesis guides your research and helps you determine which sources will be appropriate. However, general statements like “Congress should not make further cuts in social programs,” and “Prayer in public schools should not be allowed” are so broad that they fail to restrict the scope of research. Whole books have been written on welfare, just one of many social programs. Be sure, then, that your working thesis focuses on a *limited subject*. The thesis should also take a stand by *expressing your point of view, or attitude, about the subject*. Note the difference between the broad statements above and the effective limited thesis statements that follow (the limited subjects are underlined once, the attitudes twice):

The Congressional decision to reduce funding of school lunch programs has had
unfortunate consequences for disadvantaged children.

A moment of silence in public schools does not violate the constitutional separation of
church and state.

It's important for you to view your working thesis as tentative; you probably won't have a thesis until your research is almost complete and all the facts are in. Indeed, if your thesis *doesn't* shift as you investigate your topic, you may not be tapping a wide enough range of sources, or you may be resisting challenges to your original point of view. *Remember:* Gathering information with a closed mind undermines the purpose of a research project.

In its *final* form, your thesis should accomplish at least one of three things. First, it may offer your personal synthesis of multiple findings, your own interpretation of “what it all means.” Second, it may refine or extend other people's theories or interpretations. Third, it may offer a perspective that differs from or opposes the one you find expressed in most of your sources. (For more on thesis statements, see pages 36–42).

Make a Schedule

Having identified your working thesis, you're nearly ready to begin the research stage of your project. Before you begin, though, *make a schedule*. First, list what you need to do. Then, working back from your paper's due date, set rough time limits for the different phases of the project. For a paper due December 4, you might create the following four-week schedule.

November 13	Locate relevant periodicals and books.
November 23	Read materials and take notes.
November 25	Locate additional information—interviews, and so on.
November 29	Write a first draft.
December 1	Revise the draft.
December 3	Edit, print, and proofread the paper.
December 4	Submit the paper.

FIND SOURCES IN THE LIBRARY

Now is the time to start your research in earnest. Always keep in mind that you're looking for material to support your working thesis. What should you do if you come across material that contradicts your thesis? Resist the temptation to disregard such material. Instead, evaluate it as objectively as you can, and use it to arrive at a more valid statement of your thesis.

Even if your paper contains some primary research, most of your information-gathering will take place in your college library. Most college libraries contain several floors of bookshelves (often called *stacks*), with fiction and nonfiction arranged according to the Dewey Decimal or Library of Congress system of classification (see pages 539–540). You'll also find sections for periodicals, microfilm and microfiche files, reference works, reserved books, government documents, rare books, and the like. Special collections may be housed in the main library or elsewhere; for example, an extensive music library may be located in the music department. In any case, the main library catalog lists all the material contained in such special collections.

The Computerized Catalog

Most college libraries have **computerized catalogs** of their book holdings, some of which can even be accessed online. You'll be pleased to learn that most computerized systems are equipped with on-screen prompts that make it easy to search for sources. Even so, don't wait until your paper is due to familiarize yourself with your college's online catalog system. It can be overwhelming to learn the system *and* conduct research at the same time. Instead, early in the academic year, spend an hour or so at the library. Take an orientation tour, read any handouts that are

provided, speak to the librarian, and experiment with the system. The confidence you gain will make all the difference when you begin researching in earnest.

A typical online catalog search is by *author*, *title*, or *subject*. If you're searching by author or title, you type into the search box the author's first and last names or the title, respectively. If you're searching by subject, you type in a key word or phrase that summarizes your topic. You may have to try several key terms to discover under which term(s) the catalog lists sources on your topic. Assume you're conducting research to identify classroom strategies that undermine student success. You type the word *Education*. But that word would probably yield so many possibilities that you wouldn't know where to start. You might narrow your search by keying in "teaching techniques," "classroom practices," or "academic failure." For help in identifying appropriate key terms, speak with your college librarian. He or she will probably have you consult the *Library of Congress Subject Headings* or a bound or on-screen thesaurus of headings used in your library's database.

One other point: When you search for a book by subject, the screen will usually indicate narrower subheadings under that topic. As soon as one of those subheads is clicked, the screen provides a list of books on that subject. To get complete bibliographic information about a specific book, follow the computer's instructions. The book's publisher, publication date, call number, and so on will then appear on the screen. Most computerized catalogs also indicate the status of a book—whether it is out on loan, overdue, lost, or available.

A Sample Search

Figure 19.1 on the following page shows the steps in a search of the Library of Congress catalog found at *www.loc.gov*. As the largest library in the world, the Library of Congress catalogs more than 134 million items, including more than 20 million books. Many of these resources are made available to other libraries through interlibrary loans. The library also provides links to online resources. Your college library catalog search may be similar to this search in many respects.

Suppose you are researching the thesis "Public sentiment toward the military draft is determined primarily by whether a war is perceived to be just." You decide to explore the response to the draft during the Civil War. At the Library of Congress site, you would click on "Library Catalogs" and then on "Guided Search" to do a keyword search. A search for "Civil War" and "draft" yields 115 items dating back into the 1800s. You choose to display the items in descending order of date, in order to see the most recent items first. Scanning the list, you find this entry:

```
The New York City draft riots : their significance for American
society and politics in the age of the Civil War / Iver
Bernstein.
```

Clicking on the title produces a screen with a brief record for the book. You can click on a "Brief record" tab to get to the screen shown in Figure 19.2. For this particular book, you can click on "Publisher description" to get an idea of the scope of the book and on "Contributor biographical information" to find out that the

FIGURE 19.1
Sample Library Catalog Search

(a) Link to catalogs

(b) Keywords

(c)

The LIBRARY of CONGRESS

ASK A LIBRARIAN DIGITAL COLLECTIONS LIBRARY CATALOGS GO Options

Resources for...
 Kids, Families
 Librarians
 Publishers
 Researchers
 Teachers
 Visitors

General Information

AMERICAN MEMORY EXHIBITIONS THOMAS GLOBAL GATEWAY VETERANS HISTORY FREE NEXT

EXHIBITIONS

The Library of Congress

LIBRARY OF CONGRESS ONLINE CATALOG

Go to Library of Congress Authorities

Help Search Search History Headings List Titles List Request an Item Account Status Other Databases Start Over

DATABASE: Library of Congress Online Catalog

Basic Search Guided Search

Search: Civil War all of these As: Keyword Anywhere (GKEY)

AND OR NOT

Search: draft all of these As: Keyword Anywhere (GKEY)

50 records per page

Begin Search Clear Search Set Search Limits

The Library of Congress

LIBRARY OF CONGRESS ONLINE CATALOG

Help Search Search History Headings List Titles List Request an Item Account Status Other Databases Start Over

DATABASE: Library of Congress Online Catalog

YOU SEARCHED: Guided Search = [Civil War] in Keyword Anywhere [AND] [draft] in Keyword Anywhere

SEARCH RESULTS: Displaying 1 through 50 of 117.

Previous 51 101 Next

Resort results by: Date (Descending) Add Limits to Search Results

#	Name: Main Author, Creator, etc.	Full Title	Date
[1]	Elmer, Jerry, 1951-	Felon for peace : the memoir of a Vietnam-era draft resister / Jerry Elmer.	2005
[29]	Bernstein, Iver	New York City draft riots : their significance for American society and politics in the age of the Civil War / Iver Bernstein.	1990
[50]	Drafts, resisters, and all other relevant acts and regulations, with their notes and an index, by G. Granville S		

ACCESS: Jefferson or Adams Bldg General or Area Studies Reading Rms CALL NUMBER: UA647 .S65

Clear Marked Records Retain Marked Records

Previous 51 101 Next

Save, Print or Email Records (View Help)

Select Records

Select Text or MARC Format: Text (Brief Information) Press to SAVE or PRINT

All (this page only)
 Selected (this page only)
 Selected (across pages)

Email Text (Full Info) to: Press to SEND EMAIL

Help Search History Headings Titles Request Account Databases Exit

Most computerized library catalogs lead users step by step through the search process. (a) At the Library of Congress site, you would click on “Library Catalogs.” (b) At the search page, you would enter your search terms. (c) This catalog also allows you to sort the items by descending date order so you can find the most recent materials. Most systems allow you to print selected information or e-mail it to yourself.

author is a noted academic author. You can also click on the “Call number” (see pages 539–540) and “Subject” links to get to more resources on the same topic. If you decide that you would like to examine the book, you can print the record or e-mail it to yourself, and then ask your librarian to help you get the book.

By mastering your library’s computerized catalog, you’ll find that it will take only minutes to identify a large number of sources. One caution, however, about computerized catalogs: Few libraries have their entire collections online.

FIGURE 19.2
Sample Catalog Source Record

Brief Record	Subjects/Content	Full Record	MARC Tags
<i>The New York City draft riots : their significance for American society and...</i>			
LC Control No.: 89002858 Type of Material: Book (Print, Microform, Electronic, etc.) Personal Name: Bernstein, Iver. Main Title: The New York City draft riots : their significance for American society and politics in the age of the <i>Civil War</i> / Iver Bernstein. Published/Created: New York : Oxford University Press, 1990. Description: ix, 363 p., [8] p. of plates : ill. ; 25 cm. ISBN: 0195050061 (alk. paper) : Links: Publisher description Contributor biographical information			
CALL NUMBER: F128.44 .B47 1990 Copy 1 -- Request in: Jefferson or Adams Bldg General or Area Studies Reading Rms -- Status: Not Charged			
CALL NUMBER: F128.44 .B47 1990 FT MEADE Copy 2 -- Request in: Main or Science/Business Reading Rms - STORED OFFSITE -- Status: Not Charged			
◀ Previous Next ▶			
Save, Print or Email Records (View Help)			
Select Download Format: Text (Brief Information) <input type="button" value="Press to SAVE or PRINT"/>			
Email Text (Full Info) to: <input type="text"/> <input type="button" value="Press to SEND EMAIL"/>			

The brief catalog record gives important information, including the call number. You can also click on the link at “Subjects” to get to more resources on the same topic.

Special collections and older books may not be included. You’ll have to use the traditional card catalog to track down those sources not covered by the computerized catalog. Ask a librarian for help.

How to Find a Book

To locate a book on the shelves, use its **call number**. Besides appearing in the computerized catalog, the call number is printed on the spine of the book. There are two systems of call numbers in use in the United States: the **Dewey Decimal** and the **Library of Congress**. Most college libraries use the latter system, though some still reference older books by the Dewey Decimal system and more recent acquisitions by the Library of Congress. Check with the librarian to see which system(s) your library uses. Listed here are both systems’ call numbers and the subjects they represent:

Dewey Decimal System

000–099	General Works	500–599	Pure Science
100–199	Philosophy and Psychology	600–699	Technology (Applied Sciences)
200–299	Religion	700–799	The Arts
300–399	Social Science	800–899	Literature
400–499	Language	900–999	History

Library of Congress System

A	General works—Polygraphy	M	Music
B	Philosophy—Religion	N	Fine Arts
C	History—Auxiliary Sciences	P	Language and Literature
D	History and Topography (except America)	Q	Science
E–F	America	R	Medicine
G	Geography—Anthropology	S	Agriculture—Plant and Animal Industry
H	Social Sciences	T	Technology
J	Political Science	U	Military Science
K	Law	V	Naval Science
L	Education	Z	Bibliography and Library Science

Once you have a book's call number, consult a map or list posted near the card catalog to determine the book's location in the stacks or ask the librarian. In libraries with closed stacks, make out a call slip so that a member of the staff can get the book for you.

If you can't find a book in the stacks, check the tables and shelves nearby. If you still can't locate the book, consult the person at the circulation desk. If the book has been checked out, you can usually fill out a form (by hand or online) to have the current borrower notified that you're waiting for the book, which will be held for you as soon as it is returned. You might also check with a librarian to see if the book has been put on reserve or moved to a special collection, or if it is available through an inter-library loan system. Sometimes, all you need to do is type the book's call number into the computerized system, and the computer screen will tell you whether the book has been checked out, moved to a special location, or lost.

The Reference Section

Some reference works (*Encyclopaedia Britannica* and the *World Almanac and Book of Facts*) cover a wide range of subjects. Others (*Mathematics Dictionary* and *Dance Encyclopedia*) are more specialized. Despite these differences, all reference volumes present significantly condensed information. They provide basic facts but not much interpretation. Explanations are brief. Most reference works are, then, unsuitable as sources for in-depth research. In fact, they're usually omitted from the list of Works Cited at the end of a paper. However, though they have limitations, reference volumes can sometimes be useful.

How do you track down reference works that might be helpful? Start by looking up your subject in your library's computerized catalog. Record the call numbers and titles of those books marked "Ref" (Reference). The Library of Congress call number for reference is "Z," but a library may keep only some of its "Z" books in the reference section and the rest in the stacks. Most libraries arrange reference shelves alphabetically by subject ("Art," "Economics," "History"), which makes it

easy to browse for other useful references once you've identified one on a subject. Keep in mind that reference materials don't circulate; that is, they cannot be checked out, so you must consult them while in the library.

Listed here are some of the common reference books found in most college libraries:

Biography

International Who's Who
Who's Who in America

Business/Economics

Dictionary of Banking and Finance
Encyclopedia of Economics

Ethnic/Feminist Studies

Encyclopedia of Feminism
Harvard Encyclopedia of American Ethnic Groups

Fine Arts

New Grove Dictionary of American Music
The Harvard Dictionary of Music
The Oxford Dictionary of Art
The Thames & Hudson Dictionary of Art Terms

History/Political Science

Editorials on File
Encyclopedia of American Political History
Facts on File
Political Handbook of the World

Literature/Film

The Oxford Companion to American Literature
The Oxford Companion to English Literature
World Encyclopedia of Film

Philosophy/Religion

A Dictionary of Non-Christian Religions
Encyclopedia of American Religions
Encyclopedia of Philosophy

Psychology/Education

Encyclopedia of Education
Encyclopedia of Psychology
Encyclopedia of Special Education

Science/Technology/Mathematics

Dictionary of Mathematics
Encyclopedia of Medical History
McGraw-Hill Encyclopedia of Science & Technology
The Merck Index

Social Sciences

The Dictionary of Anthropology
Encyclopedia of Crime & Justice
International Encyclopedia of the Social Sciences

Periodicals

Periodicals are publications issued at periodic (regular or intermittent) intervals throughout the year. There are three broad types of periodicals: general, scholarly, and serious (see also Figure 19.3).

Periodical Indexes, Abstracts, and Bibliographies

Periodical indexes, updated anywhere from every week to once a year, are cumulative directories that list articles published in certain journals, newspapers, and magazines. In addition, major newspapers, including *The New York Times*,

FIGURE 19.3
Types of Periodicals

	General Periodicals	Scholarly Periodicals	Serious Periodicals
Intended audience	Average reader	Readers with specialized knowledge	Well-educated laypeople
Examples of publications	Daily newspapers and magazines such as <i>Time</i> , <i>Psychology Today</i> , and <i>The New York Times</i>	Academic journals such as <i>Journal of Experimental Child Psychology</i> , <i>Renaissance Drama</i> , and <i>Veterinary Medicine</i>	Newsstand publications such as <i>National Geographic</i> , <i>Scientific American</i> , and <i>Smithsonian</i>
Writing style	Personal or anecdotal	Objective	Generally objective
Types of articles	Easy-to-read overviews of subjects with some background information	In-depth analyses developed with facts, studies, and well-reasoned commentary	Articles with less depth than in scholarly periodicals but with a broader perspective
Authors	Usually generalists or journalists rather than experts	Authorities in the field	Authorities in the field or specialized journalists
Documentation	Inadequate: Poses difficulty tracking down sources and verifying information	Complete: Sources fully documented	Mostly adequate: Documentation often not as complete in scholarly publications

This chart describes the types of periodicals students are likely to encounter while researching topics for college papers.

publish annual subject directories. Most periodical indexes arrange listed articles under subject headings. Beneath the headings, individual articles are organized alphabetically by authors' last names.

A growing number of college libraries now offer computerized searches of many of the major indexes, abstracts, and bibliographies listed on pages 543–544. In most cases, libraries provide computer terminals with Internet connections, allowing users to access up-to-date online periodical index databases. In some libraries, a database that groups directories alphabetically by subject is maintained in the same system as the computerized catalog for books (see pages 536–539). In other libraries, there may be a separate bank of terminals for searching periodical directories. These terminals are usually connected to an online database or to a **CD-ROM** player containing compact discs on which periodical indexes are stored.

Your library may keep hard copies of some periodical indexes in a periodicals room; a separate, alphabetically arranged section in the reference room; or in closed stacks. Occasionally, you may find the periodical index to a highly

specialized field shelved in the stacks near books in the same field of study. Check with the librarian for the right location.

You're probably familiar with two indexes—the *Readers' Guide to Periodical Literature* and *InfoTrac*. They list general-interest articles published by popular newsstand magazines, such as *U.S. News & World Report* and *Sports Illustrated*. When you were in high school, you probably used the *Readers' Guide* or *InfoTrac* because they index accessible, nontechnical publications. To locate articles appropriate for college-level research, you'll need to consult indexes that list articles from more academic, professional, and specialized publications. The college equivalents of the *Readers' Guide* and *InfoTrac* are the *Humanities Index* and the *Social Sciences Index*. You should become familiar with these indexes as well as with the main indexes for the field in which you plan to major.

Some specialized indexes provide brief descriptions of the articles they list. These indexes are usually called **abstracts**. Examples are *Abstracts of Folklore Studies*, *Criminal Justice Abstracts*, and *Biological Abstracts*. Abstracts usually contain fewer listings than other types of indexes and are restricted to a limited field. In contrast to indexes that list only articles, **bibliographies** like the *Modern Language Association International Bibliography* list books as well as articles.

Listed here are representative indexes, abstracts, and bibliographies found in most college libraries. To save time, check with the librarian to see which of these sources can be accessed electronically at your library or by Internet connection from your own computer (see page 544).

General

Academic Search FullTEXT
Biography Index
BSCOhost
Humanities Index
InfoTrac Academic Index
InfoTrac Magazine Index
InfoTrac National Newspaper Index
Magazine Index Plus
The New York Times Index
News Bank
Readers' Guide to Periodical Literature
Social Sciences Index
Speech Index

Arts/Literature

Art Index
Book Review Digest
Film International Index

Modern Language Association (MLA) International Bibliography
Music Catalogue
The New York Times Book Review Index
Play Index

Business/Economics

Business Periodicals Index
The Economist Index
Wall Street Journal Index

History, Political Science, Government

Historical Abstracts
Government Publications Index
Political Science Abstracts
Public Affairs Information Service
Vertical File Index

Education

Education Index
ERIC (Educational Resources
Information Center)

Philosophy/Religion

Philosopher's Index
Religion Index

Psychology/Religion

PsychArticles
SocioFile

Sciences

Applied Science and Technology Index
Biological Abstracts
Computer Database
Engineering & Applied Science Index
Environment Index
Health Index
Medline

Women's and Ethnic Studies

Bibliography on Women
Black Studies Database
Ethnic Newswatch
Hispanic American Periodicals Index
Women's Studies

More and more libraries offer Internet access to databases located off campus. These Internet-access databases not only list the titles of specific journal articles but also print out the articles themselves. Some major online databases are Dialog, Wilsonline, LexisNexis, and EBSCOhost.

As you no doubt realize, library technology is changing rapidly. At some colleges, book catalogs and major reference works—as well as periodical indexes, abstracts, and bibliographies—are available not just on the library's computer terminals but also remotely via the Internet. With remote access, students can conduct much of their research from their bedrooms at any time of the day or night. (For more information on accessing electronic information, see pages 547–556.)

Using Computerized and Printed Indexes

Besides saving time, computerized directories have the advantage of being current. Most are updated monthly (unlike print volumes, which are generally updated quarterly or annually). Plus, in many libraries the computer terminals at which you view database listings are connected to printers, so you can print out the listings or send them to your e-mail address. Some online databases offer access to the full text of selected articles or books. You may read these on the screen, e-mail them to yourself, or print them out. Even when the full text isn't available, you may have the option of accessing the abstract of a work that seems promising. Remember, though, that an abstract is simply a summary. Although it can help you decide whether you should track down the original complete text, an abstract can't be cited as a source in your paper.

Being able to print out the computerized text of work that originally appeared in print form is, of course, a real time-saver. However, computerized text can have drawbacks. Unless articles are shown in PDF (personal document format), original page breaks may not be noted. (PDF shows documents as facsimiles of the printed page.) So, you may have no way of knowing where one page ends and

another begins and consequently won't be able to provide exact page numbers of specific passages for your readers.

In addition, many computerized databases catalog only recent material, from the past few years or decades. When researching a topic with a historical component, you may find computerized indexes inadequate. For instance, to discover how J. D. Salinger's novel *The Catcher in the Rye* was received when it first appeared in 1951, you would need to identify articles and reviews written in that year. Bound volumes of the *Modern Language Association International Bibliography*, *Book Review Index*, and *The New York Times Book Review Index* would provide you with the needed information.

Whether a periodicals directory is in computerized or print form, you can search by subject (or keywords) to uncover titles of relevant articles. If you don't find your subject listed in a printed index, or if a computerized database yields no titles when you type in keywords, try alternate terms for your topic. Suppose you're researching the subject of business ethics. In addition to using "Business ethics" as your subject heading or keywords, you might try "Bribery" or "Fraud" to find relevant articles. Both computerized and print indexes also show cross-references. By looking under "Business ethics," you might see suggested search terms such as "Advertising ethics," "Banking, ethical aspects," and "Commercial crime."

Periodical directories in print form list articles alphabetically, both by subject and by author. Under each subject, articles are listed alphabetically by title. When using a computerized guide to articles in periodicals, type in either an author's name or your subject. The database will then list appropriate articles, usually in reverse chronological order (most recent first). The precise procedures for searching computerized databases vary; libraries usually post instructions for the particular databases they offer.

Figure 19.4 on the following page shows an entry from the computerized database EBSCOhost. The entry gives an abstract of the article and a link to a replica (PDF version) of the article as it originally appeared in the journal. It also gives, under "Source," all the information you need to track down the article in the print journal in a library if the text is not available online. By clicking on "Subject Terms" links, you can get to additional resources.

If you see puzzling abbreviations or symbols in computerized guides, ask your librarian either to explain their meaning or to direct you to a printed key for an explanation.

Be sure not to end your search for appropriate material until you've consulted the most pertinent indexes and bibliographies. For a paper on the psychology of child abuse, you might start with *The New York Times Index* and then move to more specialized volumes, such as *Psychological Abstracts*, *Child Development Abstracts*, and *Mental Health Book Review Index*. To ensure that you don't miss current developments in your subject area, always start with the most recent years and work your way back.

Locating Specific Issues of Periodicals

If you can't print out computerized text of relevant articles, you'll need to obtain the original text. To do so, you first have to determine whether your library owns the specific periodicals and the issues you want. If your library

FIGURE 19.4
Sample Database Search

(a)

EBSCOhost Research University of Rhode Island Library

Find: "Laptops in the classroom" Search Clear

In: Academic Search Premier Folder is empty.

Refine Search Results

Limit your results: Limiters Expanders Reset

Full Text

References Available

Scholarly (Peer Reviewed)

Journals

Published Date from: Month Year to Mo

(b)

Images

Results for: "Laptops in the classroom" Add search to folder Display link to search Create alert for this search

Find: "Laptops in the classroom" Search Clear

In: Academic Search Premier Folder is empty.

To store items added to the folder for a future session, Sign In to My EBSCOhost.

Refine Search Results

All Results: 1 of 8 Page: 1 Sort by: Date Add (1-8)

See: All Results Academic Journals Magazines Newspapers

Narrow Results by Subject

LAPTOP computers

COMPUTER-assisted instruction

INTERNET in education

1. No Student Is a Passive Learner. By: Marshall, S. J. Communications of the ACM, Jan2007, Vol. 50 Issue 1, p12-12, 3/4p, (AN 23617892) Add PDF Full Text

2. Wireless Laptops in the Classroom (and the Sesame Street Syndrome). Communications of the ACM, Sep2006, Vol. 49 Issue 9, p25-27, 3p; (AN 22043627) Add

(c)

Title: Wireless Laptops in the Classroom (and the Sesame Street Syndrome) Find More Like This

Source: Communications of the ACM: Sep2006, Vol. 49 Issue 9, p25-27, 3p

Document Type: Article

Subject Terms: *AMUSEMENTS *EDUCATION *INTERNET *LEARNING *STUDENTS *INTERNET in education

NAICS/Industry Codes: 713990 All Other Amusement and Recreation Industries 811899 All Other Miscellaneous Schools and Instruction 811710 Educational Support Services 923110 Administration of Education Programs 518111 Internet Service Providers

Abstract: This article reports on the use of Internet access in classrooms. While classroom Internet access can be a wonderful teaching tool, it can also be a distraction to learning. The author discusses the history of computers in the classroom and insists that teachers need an on/off switch, which would control the times where students are able to access the Internet. The author also discusses "the Sesame Street Syndrome"

Databases such as EBSCOhost function similarly to your library's catalog. (a) At the home page for EBSCOhost, you would type in your search terms. (b) The results of the search would be listed. (c) From the results page, you would click on the item you are interested in. The listing for an item found on EBSCOhost allows you to view the full text as it appeared in the journal (PDF file), find more items by the same author, find more items on similar subjects, and print or e-mail the record. The accession number (labeled "AN" on the results page) enables you to easily find the article on EBSCOhost again.

catalogs its periodicals online, search for a periodical by typing in its name. Does that particular name appear on screen? If it does, your library owns issues of that publication. With a few additional keystrokes, you can obtain more detailed information—such as the specific volumes held by your library and the periodical's call number and location in the library.

If your library doesn't catalog its periodicals online, check with your librarian. He or she will direct you to a card catalog, a computer printout, a spiral-bound volume, or some other source that lists the library's periodicals.

Recent issues of magazines, newspapers, and journals are kept in the library's current periodicals section, where they are arranged alphabetically by name. Less current issues can be found in the periodicals room, in the stacks, or on microfilm. Bound volumes of periodicals don't circulate. Back issues of major newspapers are usually stored on microfilm filed in cabinets in a separate location.

USE THE INTERNET

Nothing demonstrates the staggering impact of the computer revolution more powerfully than the growth of the **Internet**. This global network of interlinked computer systems puts a massive storehouse of information within the reach of anyone with access to a personal computer and an Internet connection. Such a wealth of material presents obvious research benefits to you as a student. However, when faced with the task of using the Internet, you may feel overwhelmed and unsure of how to proceed. The following pages will show you how to access and evaluate Internet resources.

The Internet and the World Wide Web

The Internet is the global electronic network that links individual computer networks at tens of thousands of educational, scientific, state, federal, and commercial agencies in more than 250 countries and regions around the world. While the **World Wide Web** exists on the Internet, the two are not synonymous. The Internet is the nuts-and-bolts of the network: the cables and computers. The World Wide Web is one of several information-sharing systems existing on the Internet. The Web consists of uncounted millions of **websites**. Some websites feature text only; others contain graphics; still others contain audio and video components. Although there's great variation in the content and design of websites, nearly all contain a *home page* (generally modeled after the contents page of a book) that provides the site's title, introductory descriptive material about the site, and a menu consisting of **links** to other pages on the site or to related websites. (For more on links, see page 551.)

What the Web Offers

While often compared to a library, the Web is more accurately thought of as an enormous storage shed, piled to the ceiling with boxes and crates and items of every description. Because it's not subject to a central system of organization, and because anyone—from preteens to Nobel Prize winners to representatives

of the most extreme fringe groups—can post material on it at any time, the Web is in a state of constant flux. The quality of information found online ranges from authoritative to speculative to fraudulent. It's impossible to say with certainty even how large the Web is. Billions of pages of data may appear on the millions of websites in operation.

What can be stated with confidence is that the World Wide Web offers a collection of data that surpasses anything the world has ever seen. With the click of a mouse, you can read electronic versions of *The Washington Post* or *The London Times*; you can search thousands of documents published by federal, state, and local governments and agencies throughout the world; you can check the temperature in Moscow or get up-to-the-minute stock quotes in Hong Kong; you can scan breaking news from the Associated Press or learn the latest information on alternative treatments for arthritis.

The Advantages and Limitations of the Library and the Web

The availability of the Web makes doing research over the computer an attractive option. But that doesn't mean that libraries have become obsolete. Both the library and the Web have strengths and weaknesses. Depending upon your topic and its focus, one may be a better starting point than the other. Here are some issues to consider:

- The library is *consistently organized*. With some guidance from the catalog system and the reference librarian, you can quickly locate materials that are relevant to your topic.
- Because the Web *doesn't have a centralized organizational structure*, you are automatically—and somewhat haphazardly—exposed to a staggering array of material. If you're not sure how to focus your topic, browsing the Web may help you narrow your topic by identifying directions you wouldn't have thought of on your own. Conversely, the sheer volume of material on your subject may leave you stunned and glassy-eyed, the information overload making you feel all the more confused about how to proceed.
- Some sources in the library may be dated or even no longer accurate. By contrast, online material is usually up-to-date because it can be posted on the Web as soon as it's created. (See page 555 for hints on evaluating the currency of electronic data.)
- The instantaneous nature of Web postings can create problems, though. Library materials certainly aren't infallible, but most have gone through a process of editorial review before being published. This is often *not* the case with material on the Web. Most of us realize that the claim "I saw it in the newspaper!" doesn't ensure that information is accurate or valid. "I saw it on the Web!" is even less of a guarantee. Given this basic limitation, it's a

good idea not to rely solely on the Web when you research your topic. Consider using it as a supplement to, rather than a substitute for, library research. (For more about evaluating the validity of material on the Web, see page 555.)

Using Online Time Efficiently

The Internet is known as the “information superhighway,” and the analogy is a good one. Like any superhighway, the Internet has its rush hours and even its periods of gridlock. The checklist that follows offers some suggestions to keep you cruising in the express lane.



USING ONLINE TIME EFFICIENTLY: A CHECKLIST

- Experiment with logging on at different times of day and evening. Typically, evening hours (approximately 6 p.m. to 10 p.m.) are times of peak Internet traffic. If you have trouble getting through to particular sites, you may have more success earlier in the day or later at night.
- If it takes more than a couple of minutes to retrieve files from a website, hit the “Stop” or “Cancel” button and try again later.
- If you don’t need to see the graphics (illustrations, photographs, charts, and so on) included in a website, check if your browser offers a “text only” option. If it does, activate that option. Waiting for graphics to download can increase your online time substantially.
- Just as you do when conducting library research, be sure to record sufficient information about your online source so you can provide full documentation when it comes time to write your paper. Specifically, when you print information from the Web, make sure your browser is set so that the material’s title, date, and page as well as the date of your retrieval appear on the printed copy. You also need to check that the **URL** (*uniform resource locator*), or **Internet address**, appears clearly on the copy. Having the address makes it possible for you to return to the site in the future.

It’s critical that you type in an address exactly as it appears on the website’s home page. Keying in even slight changes in the address usually makes it impossible to access the site. The easiest way to ensure that you get the address correct is to electronically highlight and copy it directly from the address line on the Web page.

Here is an address—broken down into elements—for an editorial column by Fouad Ajami in the May 13, 2007, edition of the news magazine *U.S. News & World Report*:

<http://www.usnews.com/usnews/news/articles/070513/21fouad.htm>

<i>http:</i>	For “hypertext transfer protocol”: tells computers how to transfer the information.
<i>www.</i>	Indicates the site is located on the World Wide Web.
<i>usnews.com</i>	Internet address of the organization (in this case, <i>U.S. News & World Report</i>). The <i>.com</i> portion, or domain name, indicates the type of organization. The primary domains are as follows: <i>.com</i> —commercial <i>.edu</i> —educational institutions <i>.gov</i> —government <i>.mil</i> —military <i>.net</i> —Internet service providers <i>.org</i> —nonprofit organizations
<i>usnews/news/articles/070513/21fouad.htm</i>	Indicates where the site’s files are stored, the path to those files, and the name of the particular file being retrieved. (The <i>.htm</i> —often written as <i>html</i> —stands for <i>hypertext mark-up language</i> , the language in which these particular Web pages are written.)

When you find a website that you like and may want to visit again, use your browser’s **Bookmark** or **Favorite Places** option to save the address in your personal file. This way, you can click on its name and instantly return to the site.

Using the Net to Find Materials on Your Topic

What do you do if you want to go online to track down articles, speeches, legislation, TV transcripts, and so on about your subject? How, given the overwhelming array of online material, can you identify sources that will be pertinent? Search directories and search engines will help.

Search Directories

A **search directory**, a service that organizes websites by categories, will begin pointing you in the right direction. If you’re not sure how to narrow your topic, the search directory’s categories may help you by identifying directions you wouldn’t have thought of on your own. New search directories crop up regularly, but one of the most popular and user-friendly is Yahoo (<http://www.yahoo.com>). You can get to Yahoo’s directory from the Yahoo home page by clicking on “More” and then “Directory.”

Making Use of Links on the Web. Yahoo divides websites into fourteen categories: Arts & Humanities, Business & Economy, and so on. Each category is presented as a **link** (see page 547). Typically, a link shows up as an underlined word or phrase that may be a different color from the type elsewhere on the page. When you click on a link, you're transported to a more focused list of websites to choose from. As you move from link to link, you move from the general topic to more specific aspects of the topic. For example, say you're researching athletes' use of drugs. Clicking on "Recreation & Sports" takes you to the directory, where you can click on "Sports" and then "Drugs in Sports." You're then presented with a screen that gives links to a number of sites relevant to your topic (see Figure 19.5 on the following page).

General Search Engines

Search directories like Yahoo are wonderful tools when you begin exploring your topic. But when you're refining your investigation, you'll want to use another kind of resource: **search engines**. Search engines—the most popular of which is Google—comb through the vast amount of information on the Web for sites or documents that match your research needs. You activate a search engine by typing in key words or phrases that tell the engine what to look for. Increasingly, search engines and search directories are combined, making it possible to access both from one site's home page. Some popular search engines and search directories, and their Web addresses, follow.

About at www.about.com

AltaVista at www.altavista.com

Excite! at www.excite.com

Google at www.google.com

Lycos at www.lycos.com

Refdesk at www.refdesk.com

Yahoo! at www.yahoo.com

Tips for Using Search Engines. When you reach the home page of a search engine, it's a good idea to click on the "Help" or "Tips" button to receive specific guidelines for using that particular search engine efficiently. As you proceed, don't forget to "bookmark" (see page 550) the search engines you use so you can return to them easily at a later date.

On a search engine's home page look for the empty box where you type in the keyword(s) describing your research topic. After you click on the "search" command, the engine scans the Web for your keyword(s). It then provides you with a list of "hits," or links, to websites where your keyword is found. Most search engines also provide a brief description of each site.

How to Limit Your Search. The success of your search depends on how carefully you follow your search engine's guidelines and on how specific and descriptive your search terms are. For example, say you're doing research on

FIGURE 19.5
Sample Internet Directory Search

(a)

(b)

(c)

Subdirectories get increasingly detailed and specific. (a) At the “Recreation & Sports” subdirectory, you can click on “Sports” to get access to thousands of sites about that subject. (b) The extensive “Sports” directory indicates that the “Drugs in Sports” link will provide links to thirteen sites. (c) On the “Drugs in Sports” page, you can link directly to relevant sites.

college financial aid. Depending upon your search engine, if you simply enter the words *college financial aid* in the search box, the engine may provide a list of every document that contains the word *college* or *financial* or *aid*—hundreds of thousands of hits. Again, the most efficient way to limit the number of hits you get

is to follow with great care your search engine's specific guidelines. If no guidelines are provided or if the guidelines are confusing, try the following suggestions.



FOCUSING A WEB SEARCH: A CHECKLIST

- Put quotation marks around the phrase you are searching for—in this case, “college financial aid.” Many search engines interpret the quotation marks to mean you want only those documents that include the complete phrase *college financial aid*. If you don't include the quotation marks, you may receive listings for each word.
- To focus your search further, use the plus (+) and minus (–) signs, leaving no space before or after the signs. Say you're interested in college financial aid as it applies to tuition grants. Try typing this in the search box:

“college financial aid”+grants
- The + sign between *college financial aid* and *grants* instructs the search engine to locate items that contain both sets of keywords. A minus (–) sign has the opposite effect. If you want information about college financial aid, *excluding* information about grants, you would type your search phrase like this:

“college financial aid”–grants
- Use the Boolean operative words AND, OR, and NOT to limit your search. (Boolean logic is named for the nineteenth-century mathematician George Boole.) For some sites, using these words between key terms broadens or narrows the range of your search. For example, assume you typed the following: reggae music AND Rastafarians AND Jamaica. Using the operative *AND* instructs the search engine to return only those documents containing all three search terms.

Suppose you plan to write about the costs and benefits of urbanized, low-density land use (urban sprawl). A search on Google for selected keywords will turn up lists of sites that may be more or less useful to your research. Even slight changes in keywords (“*urban sprawl*” *advantages* or “*benefits of urban sprawl*”) can produce different lists. Clicking on the links takes you to the relevant page—not necessarily the home page—of each site.

Specialized Search Engines

Search engines that specialize in a particular field may be able to provide more in-depth resources to researchers. For example, FindLaw (www.findlaw.com) could help you find out about international adoptions and MedlinePlus (www.medlineplus.gov) will take you to a medical encyclopedia, among other sites. Many specialized search engines are also search directories.

Using Discussion Groups and Blogs

Thousands of groups operate on the Web, focusing on every topic imaginable. You can find addresses for these groups in various ways: in computer publications and special-interest magazines, or by conducting a search through a search engine.

An online **discussion group** consists of individuals who share a similar interest, with members of the group communicating with one another in a variety of ways, depending on the technical structure of the group. Some groups enable participants to communicate through e-mail. Each e-mail message is automatically distributed to everyone on the discussion group's membership list. In some groups, people post messages on a central "bulletin board," where anyone can read and respond to a message. In a moderated group, contributions are reviewed by a group facilitator before being posted to the group at large. In unmoderated groups, there is no such review. Membership in some groups may be restricted to people with qualifying credentials or to subscribers. Not surprisingly, unmoderated news-groups tend to have a high ratio of junk mail. (To browse through categories of online groups, go to <http://groups.google.com>.)

Blogs (short for weblogs) could be compared to online diaries or journals. The blog's owner posts entries that readers can read and then respond to online. Blogs can be on a particular topic (say, politics) or not, depending on the owner's interest. A number of sites, including Technorati (<http://technorati.com>) and Google Blog Search (<http://blogsearch.google.com/>), offer ways to locate specific blogs.

Keep in mind that anyone—scholar, fraud, con artist, or saint—can voice an opinion online. Also, be careful not to assume that a talkative member of a group or a blog owner is necessarily an expert: any self-styled "authority" can contribute to most online discussions. Despite these problems, discussion groups and blogs *can* be helpful sources of information and provide valuable leads as you do your research. They may also put you in e-mail touch with respected authorities in your field of research.

Using Wikis

Wikis are Web pages that can be modified by any Internet user; no special software is needed. They can be useful tools for groups constructing a document together online. Perhaps the best-known wiki is Wikipedia (www.wikipedia.org), an online encyclopedia hosted by the nonprofit Wikimedia Foundation. Viewers can contribute to and modify articles on Wikipedia, and all content is available for use free of charge. Although anyone can contribute to Wikipedia, the site operators do exercise editorial oversight.

Because of how Wikipedia entries are created and edited, viewers can't be sure that information in the articles is accurate and unbiased. That means you must use Wikipedia content with great caution. While you might read a Wikipedia entry to acquire some background information, as you would a regular encyclopedia article, you should take care to verify any specific facts in more conventional sources. Individual articles often end with lists of resources and links to other sources. The bottom line: Avoid quoting from, summarizing, or paraphrasing Wikipedia articles in a college paper.

Evaluating Online Materials

As noted in the preceding section and on pages 547–549, you need to take special care to evaluate the worth of material you find on the Web. Electronic documents may appear seemingly out of nowhere and can disappear without a trace. And anyone with access to a computer can create a webpage or state a position in a discussion group. How, then, do you know if a source found on the Net is credible? The following checklist provides some questions to ask when you work with online material.



EVALUATING ONLINE MATERIALS: A CHECKLIST

- Who is the author of the material? Does the author offer his or her credentials in the form of a résumé or biographical information? Do these credentials qualify the author to provide information on the topic? Does the author provide an e-mail address so you can request more information? The less you know about an author, the more suspicious you should be about using the data.
- Can you verify the accuracy of the information presented? Does the author refer to studies or to other authors you can investigate? If the author doesn't cite other works or other points of view, that may suggest the document is opinionated and one-sided. In such a case, it's important to track down material addressing alternative points of view.
- Who is sponsoring the website? Check for an "About Us" link on the home page, which may tell you the site's sponsorship and goals. Many sites are published by organizations—businesses, agencies, lobby groups—as well as by individuals who are advocating a single point of view. Even organizations with the .org domain name may have a specific bias on an issue. You should use the material with great caution. And once again, make an extra effort to locate material addressing other sides of the issue.
- Is the information cited recent and up-to-date? Being on the Internet doesn't guarantee that information is current. To assess the timeliness of Internet materials, check at the top or bottom of the document for copyright date, publication date, and/or revision date. Those dates will help you determine whether the material is recent enough for your purposes.
- Is the information original or taken from another source? Is quoted material accurate? Some Web pages may reproduce material from other sources without identifying them. Watch out for possible plagiarism. Nonoriginal material should be accurately quoted and acknowledged on the site.

Using Other Online Tools

The World Wide Web is not the only portion of the Internet that you'll find interesting or useful. Other aspects of the Net include Telnet, a software networking tool that allows you to log onto another computer and access its files; FTPs (file transfer protocols), through which you download files from remote computers and upload files to computers to which you have access; and Gopher, a comprehensive menu-based program. If you become interested in the workings of the Net beyond the World Wide Web and want to investigate further, your favorite search engine—and your college librarian—should provide the help you need.

Prepare a Working Bibliography

As you gather promising books, reference volumes, print articles, and online material about your subject, prepare a **working bibliography**—a master list of potential sources. Having such a list means you won't have to waste time later tracking down a source whose title you remember only vaguely.

Since you want to read as much as you can about your subject, the working bibliography will contain more sources than your instructor requires for the final paper. In the long run, you probably won't use all the sources in your working bibliography. Some will turn out to be less helpful than you thought they would be; others may focus on an aspect of your topic you decide not to cover after all.

The working bibliography may be compiled in a computer file, on standard notebook paper, or on index cards. You might find it easiest to use a computer file, since you can often e-mail library catalog information and journal articles to yourself and copy and paste Web addresses right into the bibliography. Both these options can help you avoid transcription errors. A computer document can also be sorted and re-sorted alphabetically as you develop your list. (Check the Help feature on your word processing program for instructions on sorting.) And you can add comments to the individual items as you work.

Some researchers prefer to use a notebook. A notebook keeps all your writing in one place, but it's hard to make changes to items you have already entered. Another useful approach is to use large (4- x 6-inch) note cards, one card for each source. Unlike a notebook, index cards can be arranged in alphabetical order quickly, which makes it easy to prepare your Works Cited list (see page 593). And the larger index cards give you room to comment on a source's value ("Good discussion of landfill regulations") or availability ("See if book is on reserve"). Finally, note cards are very portable.

However you prepare your working bibliography, take time to record the information listed in the checklist on page 557.

Recording this basic information helps you locate these potentially useful sources later on. In the next stage, as you start taking notes, you'll refine the information in your working bibliography.



PREPARING A WORKING BIBLIOGRAPHY: A CHECKLIST

- For a book, write down the title, author, and call number.
- For an article in a printed reference volume, note the titles of both the article and the reference work, the article's author, and the reference work's call number.
- For an article in a printed periodical, note the titles of both the article and periodical, the article's author, and the article's date and pages.
- If you obtain an article title electronically, write down the same information you would if you were using a print directory. If you don't expect to locate the article in print form (because a print version is either nonexistent or difficult to obtain), then also note any information essential for accessing the article electronically. For example, if later on you want to locate the article's text on the same CD-ROM you are using as an index, write down "CD-ROM" and the database (for example, *ERIC*). For an online source, note the database (for example, *Magazine Database Plus*); the computer network or service through which you access the database (for example, Earthlink); and any keyboard commands you need to access the material, especially the online address).

TAKE NOTES TO SUPPORT THE THESIS WITH EVIDENCE

Now that you've formed a working thesis, identified promising sources, and compiled a working bibliography, it's almost time to take notes. Your goal at this point is to find support for your preliminary thesis—and to pay close attention to material suggesting alternative viewpoints. Sifting through this conflicting information will enable you to refine your working thesis with more precision. (For more about evaluating contrasting positions, see pages 558–559). At this point you may be wondering why you should take notes at all. Why not simply read the sources and then draft the research paper, referring to the sources when you need to check a fact or quote something?

Such an approach is bound to create problems. For one thing, you may have to return a source to the library before you're ready to start writing. Taking the time to go back to the library to retrieve the source later on can slow you down considerably—and, in fact, someone else could have checked out the only copy of the source. With notes, though, you'll have all the necessary information at hand without having to return to the original source.

Moreover, if you have your sources in front of you as you write, you'll be tempted to move large chunks of material directly from your sources to your

paper, without first evaluating and distilling the material. Writing directly from your sources also aggravates any tendency you may have to string together one quotation after another, without providing many ideas of your own. Worst of all, such an approach often leads to **plagiarism**: passing off someone else's work as your own. (For more on plagiarism, see pages 565–566, 570–572, and 581–590.)

Note-taking can eliminate such problems. When done well, it encourages you to assess, synthesize, and react to your sources. Keeping your working thesis firmly in mind, you examine what others have to say about your subject. Some authors will support your working thesis; others will serve as “devil’s advocates,” prodding you to consider opposing viewpoints. In either case, note-taking helps you refine your position and develop a sound basis for your conclusions.

Before Note-Taking: Evaluate Sources

You shouldn't take notes on a source until after you've evaluated its *relevance*, *timeliness*, *seriousness of approach*, and *objectivity*. Titles can be misleading. If a source turns out to be irrelevant, skip note-taking; just indicate on your working bibliography that you consulted the source and found it didn't relate to your topic. Next, consider the source's age. To some extent, the topic and kind of research you're doing determine whether a work is outdated. If you're researching a historical topic such as the internment of Japanese Americans during World War II, you would most likely consult sources published in the 1940s and 1950s, as well as more up-to-date sources. In contrast, if you're investigating a recent scientific development—cloning, for example—it would make sense to restrict your search to current material. For most college research, a source older than ten years is considered outdated unless it was the first to present key concepts in a field.

You should also ask yourself if each source is serious and scholarly enough for your purpose and your instructor's requirements. Finally, examine your sources for possible bias, keeping in mind that a strong conclusion or opinion is *not in itself* a sign of bias. As long as a writer doesn't ignore opposing positions or distort evidence, a source can't be considered biased. A biased source presents only those facts that fit the writer's predetermined conclusions. Such a source is often marked by emotionally charged language (see page 21). Publications sponsored by special interest groups—a particular industry, religious association, advocacy group, or political party—are usually biased. Reading such materials *does* familiarize you with a specific point of view, but remember that contrary evidence has probably been ignored or skewed.

A special problem occurs when you find a source that takes a position contrary to the one that you had previously considered credible. When you come across such conflicting material, you can be sure you've identified a pivotal issue within your topic. To decide which position is more valid, you need to take good notes from both sources (see pages 562–573) or carefully annotate your photocopies or printed documents (see pages 565–566). Then evaluate each source for bias. On this basis alone, you might discover serious flaws in one or both sources. Also compare the key points and supporting evidence in the two sources. Where do they agree? Where do they disagree? Does one source argue against the other's

position, perhaps even discrediting some of the opposing view's evidence? The answers to these questions may very well cause you to question the quality, completeness, or fairness of one or both sources. To resolve such a conflict of sources, you can also research your subject more fully. For example, if your conflicting sources are at the general or serious level (see pages 541–544), you should probably turn to more scholarly sources. By referring to more authoritative material, you may be able to determine which of the conflicting sources is more valid.

When you try to resolve discrepancies among sources, be sure not to let your own bias come into play. Try not to favor one position over the other simply because it supports your working thesis. Remember, your goal is to arrive at the most well-founded position you can. In fact, researching a topic may lead you to change your original viewpoint. In this case, you shouldn't hesitate to revise your working thesis to accord with the evidence you gather.

Before Note-Taking: Refine Your Working Bibliography

After determining the sources from which you will take notes, spend some time refining the relevant entries in your working bibliography. With the sources in front of you, use the guidelines listed in the following checklist to fill in any missing information. (At times, the guidelines include a bit more information than MLA requires. This precision will often be helpful if you use a format other than MLA.)



REFINING YOUR WORKING BIBLIOGRAPHY: A CHECKLIST

- Take down the authors' names exactly as they appear on the title pages of the original works and in the order shown there. The author listed first is considered the primary author, so don't rearrange the names alphabetically. Occasionally, a work will be attributed to an organization, university, or institute rather than to a person. If so, consider that organization the author.
- For a *book*, record:
 - The full title (including any subtitle) on the title page
 - The publisher's name from the title page
 - The publisher's location from the title page. If the publisher is international, use the publishing location in your country, if there is one. If several locations within your country are listed, use as the city of publication the one that's listed first on the title page.
 - The volume number for multivolume books, from the title page.
 - The copyright year, the most recent year in which the text was registered, from the copyright page. (For example, for the copyright line "Copyright © 2003, 2007 by Pearson Education, Inc." use "2007" as the year of publication.) If you have doubts

whether your edition is the most recent, check the online catalog to see if the library has a later one. Remember, the number of editions in which a book has appeared is not the same as the number of printings the book has gone through. A book may say “ninth printing,” yet be only the second edition.

- The book’s call number.
- For a *mass-publication magazine*, note:
 - The author’s name (if any)
 - The article or column title
 - The magazine title
 - The date (usually month and year)
 - The pages on which the article appears.
 - Any special explanation, such as “Editorial” or “Letter to the editor.”
- For a *newspaper article*, take down:
 - The author’s name (if any)
 - The article or column title
 - The newspaper title
 - The date (month, day, and year)
 - The edition, if specified
 - The section and pages where the article appears.
 - Any special explanation, such as “Editorial” or “Letter to the editor.”
- For an *article or essay in a book-length collection*, record:
 - The authors of the article
 - The article title
 - The book title
 - The book’s editor
 - The publisher and its location
 - The copyright date
 - The specific book pages on which the article appears.
- For an *article in a scholarly or serious journal*, note:
 - The article’s author(s)
 - The article title
 - The journal title
 - The date (including month and year)
 - The volume and issue (if any)
 - The pages on which the article appears. Also indicate whether the journal is paginated continuously from issue to issue throughout a given year or whether each issue is paginated separately.
- For all periodicals, note the library location of relevant issues.

- For *text obtained on CD-ROM or online*, note:
 - The identical information you would for a printed source in the same category (for example, a magazine article)
 - The page numbers. If the database doesn't specify an article's precise page numbers (see page 544), write down the page number (if available) on which the article began in the original, plus the number of pages or number of paragraphs in the article.
 - For CD-ROMs, the database (for instance, *The New York Times OnDisc*), CD-ROM publisher (for example, UMI-ProQuest), and CD-ROM publication date.
 - For text accessed online, note the database (for instance, *The New York Times Online*), the computer service or network (for example, EBSCOhost), your date of access, and any other information someone would need to retrieve the text (such as the online address).
- For other electronic sources, record:
 - The creator's name (interviewer, blogger).
 - The name of the item.
 - The title of the website hosting the item.
 - The date the item was posted or last updated.
 - The date you retrieved the item.
 - The web page address.
 - Any special explanation, such as "Podcast" or "E-mail."
- For non-text material, write down:
 - The creator's name (documentary film director, artist, composer).
 - The title of the piece (song title) and of the larger work it is part of (CD title).
 - The producer (recording company, film company, television network).
 - The place of performance or exhibit (concert hall, museum).
 - The relevant dates (performance date, release date).

Be sure to include any information you might need for your paper's Works Cited or References page. If your working bibliography is accurate and complete, you won't need to refer to your sources later on when preparing your paper's final reference list.

Before Note-Taking: Read Your Sources

At this point, you should spend some time analyzing each source for its *central ideas, main supporting points, and key details*. As you read, keep asking yourself how

the source's content meshes with your working thesis and with what you know about your subject. Does the source repeat what you already know? If so, you may not need any notes. But if a source provides detailed support for important ideas, plan to take full notes.

When Note-Taking: What to Select

What, specifically, should you take notes on? Your notes might include any of the following: facts, statistics, anecdotal accounts, expert opinion, case studies, surveys, reports, results of experiments. If a source suggests a new angle on your subject, thoughtful and extensive notes are in order. As you begin taking notes, you may not be able to judge how helpful a source will be. In that case, you probably should take fairly detailed notes. After a while, you'll become more selective.

As you go along, you may come across material that challenges your working thesis and forces you to think differently about your subject. Indeed, the more you learn, the more difficult it may be to state anything conclusively. This is a sign that you're synthesizing and weighing all the evidence. In time, the confusion will lessen, and you'll emerge with a clearer understanding of your subject.

When Note-Taking: How to Record Statistics

As you read your sources, you'll probably come across statistics that reinforce points you want to make. Follow the guidelines listed in the following checklist when taking notes on statistics.



RECORDING STATISTICS: A CHECKLIST

- Check that you record the figures accurately. Also note how and by whom the statistics were gathered, as well as where and when they were first reported.
- Take down your source's interpretation of the statistics, but be sure to scrutinize the interpretation. Although the source's figures may be correct, they could have been given a "spin" that distorts them. For example, if 80 percent of Americans think violent crime is our number one national problem, that doesn't mean that violent crime *is* our main problem; it simply means that 80 percent of the people polled *think* it is. And if a "majority" of people think that homelessness should be among our top national priorities, it may be that a mere 51 percent—a bare majority—feels that way. In short, make sure the statistics mean what your sources say they mean.
- Examine each source for possible bias. If a source takes a highly impassioned stance, you should regard its statistics with healthy

skepticism. Indeed, it's a good idea to corroborate such figures elsewhere; tracking down the original source of a statistic is the best way to ensure that numbers are being reported fairly.

- Be suspicious of statistics that fail to indicate the number of respondents or that are based on a small, nonrepresentative sample (see pages 531–532). For instance, assume the claim is made that 90 percent of the people sampled wouldn't vote for a candidate who had an extramarital affair. However, if only ten people were polled one Sunday as they left church, then the 90 percent statistic is misleading. (For hints on using statistics in a paper, see page 590.)

When Note-Taking: Recording Information

With your sources (books and printouts of articles) and working bibliography close at hand, you're ready to begin taking notes. You may want to use a computer. For a short paper, you may find it convenient to keep the notes from all sources in a single file. For longer papers, where you are consulting many sources, it will be more useful to create a separate file for each source.

Taking notes on computer files allows for easy manipulation of material. You can cut and paste text as you work with it. You also don't have to write information twice—once in longhand and then again by typing it into your draft. The danger of using a computer file, however, is the temptation to copy and paste text without taking the time to identify its origin, which can lead to inadvertent plagiarism. Another problem with having notes on computer files is the difficulty of seeing more than one file at a time as you write your first draft. If the split-screen function on your software is not easy to use, you may have to print your notes in order to work with them.

Your instructor may ask you to take notes on 4- x 6-inch (or larger) index cards. If so, on each card, record notes from only *one source* and on only *one subtopic* of your subject. *Note cards* have several advantages. First, cards help you break information into small, easy-to-manage chunks. Second, they allow you to rearrange information since they can be piled and sorted. You can also delete information easily by simply removing a card. Last, you can create some note cards from printed excerpts of computer files you are using.

For every computer file or note card, follow the guidelines in the checklist given here.



TAKING NOTES: A CHECKLIST

- *Key* each file or card to the appropriate source in your working bibliography. For a computer file, copy the bibliographic entry onto the top of the document and insert an identifier (Jones, p. 31) before each separate note. For note cards, write the author's last name on

each note card. If you have more than one source by the same author, also record the source's title.

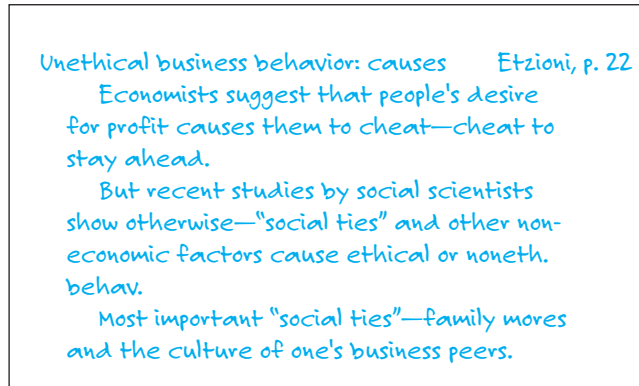
- Make sure each source file has a name that identifies the source.
- Record the *page* or *pages* in the source that the note refers to. If the material is drawn from several pages, indicate clearly where the page breaks occur in the source. That way, if you use only a portion of the material later, you will know its exact page number.
- Write a key word or phrase at the top of each note card, or at the beginning of each note on a computer file, indicating the gist of the note and the aspect of your topic the note focuses on. Often your key terms will themselves develop subtopics. For example, suppose you are writing a paper on erosion. If you are using note cards, you may have two major stacks of cards: "Beach erosion" and "Mountain erosion," with beach erosion being divided into "Dune" and "Shoreline" erosion. If you are taking notes on a computer, you might label each note on a source file by topic: "Beach erosion—dune," "Beach erosion—shoreline," "Mountain erosion."
- Finally, write down the actual note. Pages 566–570 describe specific kinds of notes to take. In the meantime, here's some general advice. Some notes will be only a line or two; others will be quite full. If you are using cards and you run out of space on a card, don't use the other side; this makes it hard to see at a glance what the note is about. Instead, use a second card, being sure to record the source, page, and so on. Also label successive cards carefully (1 of 2, 2 of 2) and clip them to the first card in the series. If you print computer documents to work with them, make sure to print on only one side of the sheet.

The sample card in Figure 19.6 illustrates one way to identify information on a note card. But whichever way you choose, be consistent. When you scan your cards or file before finishing with a source, you'll be more inclined to notice any missing information if you've prepared the notes in some consistent style. You'll also find it easier to retrieve information later on from well-organized cards or files.

If you are using a computer, once you finish taking notes on a source and labeling the notes by topic, you may want to collate your notes by topic and subtopic. One way to do this is to copy and paste notes from the "source" files into a fresh "topic" file, so that all notes on a specific topic are gathered in the same place and can be reviewed together. If you do so, make sure to copy the source identifier with the note itself. Another method is to print the source files and annotate them as you work, first circling all the notes on dune erosion, say, and then all the notes on shoreline erosion as you draft those parts of your essay.

Notes may also include your comments about a source. Enclosing your observations in square brackets—" [helpful summary]" or "[controversial interpretation]"—keeps these interpretive remarks separate from your notes on a source. If taking notes sparks new ways of looking at your subject, get down such

FIGURE 19.6
Sample Note Card



Take notes on only one side of a card, making sure to identify the source in the same way on each card.

thoughts, carefully separating them from your source material. Write “Me” or “My idea” next to the note, or highlight the comment in color on a computer file, or enclose your observations in a box on a note card. If your own comments become extensive, use separate files or cards, clearly labeling them as your own ideas.

If you prefer to handwrite notes but can't get the hang of the note-card system, try using *sheets of paper in much the same way that you would set up computer files*. Head each sheet with a key to the source. Then enter all notes from that source, along with page numbers, on the same sheet. If you run out of space, don't take notes on the other side. Instead, start a new sheet, entering on each a key to the source, and continue to keep track of the pages in the source from which you're taking notes. Mark each sheet in the sequence clearly (1 of 3, 2 of 3, and so on). Using key phrases to signal subtopics will also make it easier to organize your notes later.

When Note-Taking: Photocopies and Printouts

Photocopying or **printing** material is another way to gather information. Many journal articles can be printed in the library or e-mailed to your address for printing later on. You have the right to duplicate published work as long as you use it for your own research and give credit for borrowed material. Using copies *does* have advantages. It allows unhurried analysis and reconsideration of research material at home. It can also be a way of ensuring accuracy since sources can be checked so easily. Duplicating can be especially useful if you need to retrieve a detail that initially seemed unimportant. It may also be a good idea to photocopy the title and copyright pages of books you use so that you can double-check source information later on.

However, using printed documents is not without its dangers, especially if you're an inexperienced researcher. You may get a false sense of security if you convince yourself that once you've photocopied or printed material, you've done

most of the work. *Remember:* You still have to evaluate and synthesize your source material, figuring out what evidence supports your working thesis. That means you should dig into the material, underlining or boxing sections you might use, jotting subtopics in the margins, and recording your reaction to the material.

There's one more pitfall to consider: Working with duplicated material can encourage *plagiarism*. Instead of recasting material in your own words, you may be tempted to copy others' language and ideas. If that is the case, you'd be better off steering clear of duplicating altogether. (For more on plagiarism, see pages 565–566, 570–572, and 581–590.)

If you do photocopy or print materials, don't forget to include the duplicated sources in your working bibliography and to write complete source information on the photocopy itself.

Kinds of Notes

There are four broad kinds of notes: direct quotations, summaries, paraphrases, and combined notes. Knowing how and when to use each type is an important part of the research process.

Direct Quotations

A **quotation note** reproduces, word for word, that which is stated in a source. Although quoting can demonstrate the thoroughness with which you reviewed relevant sources, don't take one direct quote note card after another; such a string of quotations means you haven't evaluated and synthesized your sources sufficiently. When should you quote? If a source's ideas are unusual or controversial, record a representative quotation in your notes so you can include it in your paper to show you have accurately conveyed the source's viewpoint. Also record a quotation if a source's wording is so eloquent or convincing that it would lose its power if you restated the material in your own words. And, of course, you should take down a quotation if a source's ideas reinforce your own conclusions. If the source is a respected authority, such a quotation will lend authority to your own ideas. When taking notes, you might aim for one to three quotations from each major source. More than that can create a problem when you write the paper.

A note containing a direct quotation from a source should be clearly indicated by quotation marks, perhaps even a notation like "Direct Quotation" or "DQ." Whenever your source quotes someone else (a secondary source) and you want to take notes on what that other person said, put the statement in quotes and indicate its original source. (See page 589 for more on quoting secondary sources.)

When copying a quotation, you must record the author's statement *exactly* as it appears in the original work, right down to the punctuation. As long as you don't change the meaning of the original, you may delete a phrase or sentence from a quotation if it's not pertinent to the point you're making. In such cases, insert three spaced periods, called an **ellipsis** (...), in place of the deleted words.

Original Passage

The plot, with one exciting event after another, was representative of the usual historical novel. But *Gone with the Wind* placed its emphasis as much on the private individual as on the panorama.

Ellipsis Used to Show Material Omitted

When omitting material *in or near the middle* of the original sentence, proceed as follows: Leave a space before the first period of the ellipsis and leave a space after the third period of the ellipsis before continuing with the quoted matter:

“The plot . . . was representative of the usual historical novel. But *Gone with the Wind* placed its emphasis as much on the private individual as on the panorama.”

Ellipsis at the End

When deleting material *at the end* of the original sentence, proceed as above, but insert a period before the first ellipsis period and provide the closing quotation mark:

“The plot, with one exciting event after another, was representative of the usual historical novel. . . .”

No Ellipsis Needed

You don't need an ellipsis if you omit material at the start of a quotation. Simply place the quotation marks where you begin quoting directly. Also, don't capitalize the first word in the quotation unless it ordinarily requires capitalization:

Gone with the Wind's piling up of “one exciting event after another” was typical of the historical potboiler.

This example also illustrates that you can omit the ellipsis if all you quote is a key term or short phrase. In such cases, just enclose the borrowed material in quotation marks. (For more examples of the ellipsis, see pages 582–583.)

Additions to a Quotation

If, for the sake of clarity or grammar, you need to add a word or short phrase to a quotation (for example, by changing a verb tense or replacing a vague pronoun with a noun), enclose your insertion in **brackets**:

“Not only did it [*Gone with the Wind*] for a short time become America's speediest-selling novel, but over the long haul, it became the nation's largest-selling novel.”

Quotation Within a Quotation

When a source you're quoting quotes another source, place single quotation marks around the words of the secondary source:

“Despite its massive scope, *Gone with the Wind* sustained, according to one reviewer, ‘remarkable continuity in its plot and character development.’”

Summaries

By **summaries**, we mean *condensing* someone else's ideas and restating them *in your own words*. Skim the source; then, using your own language, condense the material to its central idea, main supporting points, and key details. Summary note cards may be written as lists, brief paragraphs, or both. You may use abbreviations and phrases as well as complete sentences. *A caution:* When summarizing, don't use the ellipsis to signal that you have omitted some ideas. The ellipsis is used only when quoting.

The length of the summary depends on your topic and purpose. Read the following excerpt from page 8 of Julian Stamp's book *The Homeless and History*. Then look at the subsequent summary note cards. (Although the summaries here are shown on cards, you may prefer to type your summaries in your source files or topic files. Just make sure that each summary is clearly labeled as such.)

The key to any successful homeless policy requires a clear understanding of just who are the homeless. Since fifty percent of shelter residents have drug and alcohol addictions, programs need to provide not only a place to sleep but also comprehensive treatment for addicts and their families. Since roughly one-third of the homeless population is mentally ill, programs need to offer psychiatric care, perhaps even institutionalization, and not just housing subsidies. Since the typical head of a homeless family (a young woman with fewer than six months' working experience) usually lacks the know-how needed to maintain a job and a home, programs need to supply employment and life skills training; low-cost housing alone will not ensure the family's stability.

However, if we switch our focus from the single person to the larger *economic* issues, we begin to see that homelessness cannot be resolved solely at the level of individual treatment. Beginning in the 1980s and through the 1990s, the gap between the rich and the poor has widened, buying power has stagnated, industrial jobs have fled overseas, and federal funding for low-cost housing has been almost eliminated. Given these developments, homelessness begins to look like a product of history, our recent history, and only by addressing shifts in the American economy can we begin to find effective solutions for people lacking homes. Moreover, these solutions—ranging from renewed federal spending to tax laws favoring job-creating companies—will require a sustained national commitment that transcends partisan politics.

The summary notes shown in Figures 19.7 (a) and (b) were taken by two students writing on related but different topics. Although both students eventually used more scholarly and detailed sources in their papers, they found—in the early stages of their research—that Stamp's book provided helpful background and perspective. The first student, planning to write on the causes of homelessness, prepared an in-depth summary card labeled "Personal and Economic Causes of Homelessness." The second student, planning to write on the day-to-day experience of homeless families, took a much shorter note under the heading "Profile: Heads of Homeless Families."

Problems Writing a Summary. The sample note cards in Figure 19.7 were prepared by students who were careful about translating ideas into their own language. The note cards shown in Figure 19.8, however, were prepared by students

FIGURE 19.7
Sample Summary Notes

Personal and Economic Causes of Homelessness Stamp, p. 8

Point: As individuals, homeless have personal problems.

- 50% in shelters are substance abusers.
- 33% of all homeless suffer mental illnesses.
- Head of homeless family usually has little or no job experience.
- Treatment program needed to solve these problems.

(a)

Stamp, p. 8

Point: As a nation, homelessness is an economic problem. Since 1980:

- Growing gulf between rich and poor.
- Decline in industrial jobs.
- Loss of federal money for housing.
- Only economic treatment—from government spending to new tax laws—can permanently solve the homeless problem.

2 of 2

Stamp, p. 8

Profile: Heads of Homeless Families

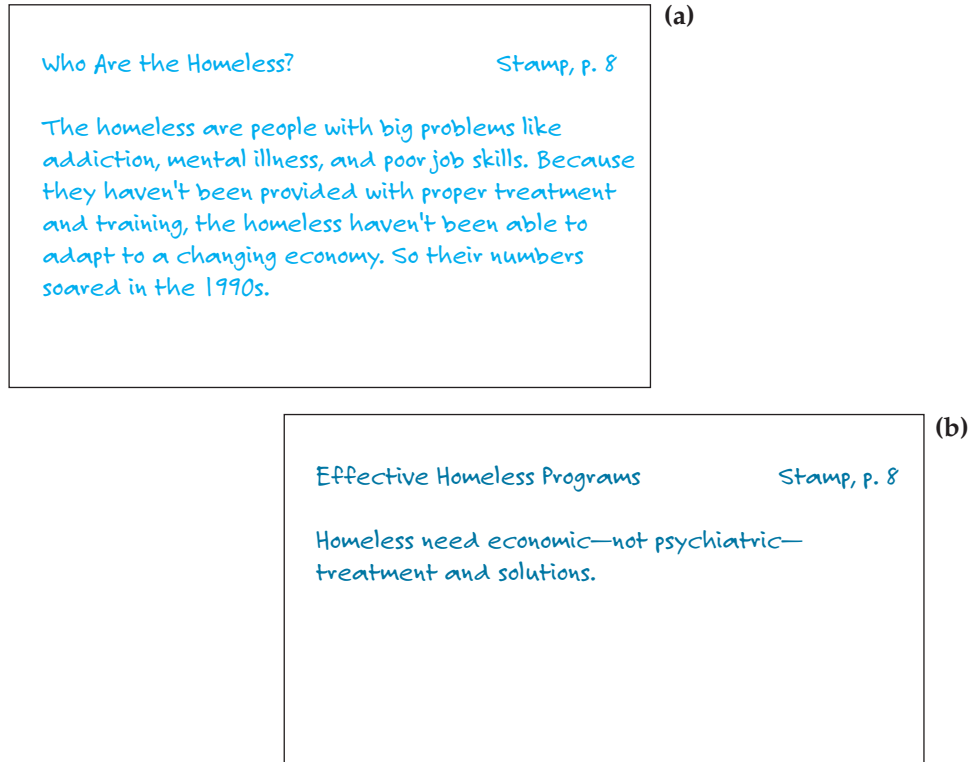
Most homeless families are led by young women who haven't held a job for longer than six months. Without training in work skills and household management, these women can't maintain their families or any housing that might be available.

(b)

The length of a summary depends on the usefulness of the source for your essay. (a) The first student wrote a detailed summary that required two cards. (b) The second student needed only a brief summary of the source.

who had difficulty recasting ideas from the Stamp passage. In the first example, the student was so determined to put things her way that she added her own ideas and ended up *distorting* Stamp's meaning. For instance, note the way she emphasizes personal problems over economic issues, making the former the cause of the latter. Stamp does just the opposite and highlights economic solutions

FIGURE 19.8
Problematic Summary Notes



Writing a summary requires thoughtfulness. (a) In this summary, the source's original meaning is altered. (b) This summary is so condensed that it is unlikely to be useful.

rather than individual treatment. In the second example, the student worked so hard to compress material that he prepared an *overly condensed* note card. His excessively terse statement, lacking detail and explanation, renders the summary almost meaningless.

Paraphrases

Unlike a summary, which condenses the original, a paraphrase recasts material by using roughly the same number of words, retaining the same level of detail, and adopting the same style as the original. Since the research process requires you to distill information, you'll probably find summary note cards much more helpful than paraphrases.

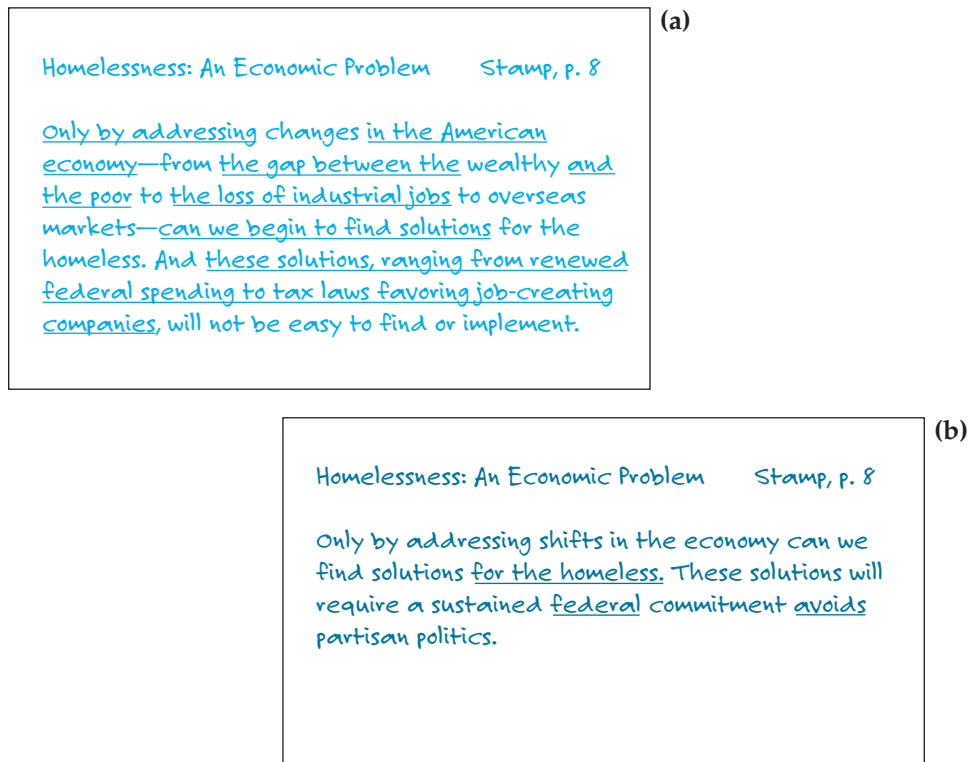
Plagiarism

Plagiarism occurs when a writer borrows someone else's ideas, facts, or language but doesn't properly credit that source. Summarizing and paraphrasing,

in particular, can lead to plagiarism. Look, for example, at the note card in Figure 19.9 (a). When preparing his paraphrase, the student stayed too close to the source and borrowed much of Stamp's language *word for word*. Note, for example, the underlined words, which are taken directly from Stamp. If the student transferred this phrasing to his paper without supplying quotation marks, he'd be guilty of plagiarism. Indeed, even if this student acknowledged Stamp in the paper, he'd still be plagiarizing—the lack of quotation marks implies that the language is the student's when, in fact, it is Stamp's.

As the sample card in Figure 19.9 (b) shows, another student believed, erroneously, that if she changed a word here and omitted a word there, she'd be preparing an effective paraphrase. Note that the language is all Stamp's *except* for the underlined words, which signal the student's slight rephrasings of Stamp. Notice, too, that the student occasionally deleted a word from Stamp, thinking that such changes would constitute a legitimate paraphrase. For instance, Stamp's "only

FIGURE 19.9
Plagiarized Paraphrase Notes



Careless paraphrasing can easily lead to plagiarism. (a) In this plagiarized paraphrase, the underlined portions are taken word-for-word from the source. (b) This plagiarized paraphrase is a near-quote because the student has simply changed a few words (underlined) in the original quotation.

by addressing shifts in the American economy can we begin to find effective solutions” became “only by addressing shifts in the economy can we find solutions.” The student couldn’t place quotation marks around these *near-quotes* because her wording isn’t identical to that of the source. Yet to place the near-quotes in a paper without quotation marks would be deceptive; the lack of quotation marks would suggest that the language is the student’s when actually it’s substantially (but not exactly) Stamp’s. Such near-quotes are also considered plagiarism, even if, when writing the paper, the student supplied a note citing the source. (For hints on steering clear of plagiarism when you actually write a research paper, see the discussion of documentation on pages 581–590.)

Combining Notes

When taking notes, you may summarize someone else’s ideas in your own words but also include some of the source’s exact wording. The result, a **combined note**, is legitimate as long as you put quotation marks around the source’s language. The combined note cards in Figure 19.10 are based on the same passage from Stamp’s book.

FIGURE 19.10
Sample Combined Notes

Homelessness: An Economic Problem Stamp, p. 8

Beyond the individual problems of homeless people, homelessness is a matter of “larger economic issues.”

During the 1980s and 1990s:

- Growing gulf between rich and poor
- Flat growth in “buying power”
- Decline in industrial jobs and federal money for housing

Stamp, p. 8 cont.

Only “by addressing shifts in the American economy”—through government spending and new tax laws—can we permanently solve the homeless problem.

Combining summary and quotation in a single note can be very useful if you take care to clearly identify quotations.

Combination note cards are effective. They allow you to retain key phrases as well as eloquent or controversial statements from your source; you don't have to spend time recasting material that resists translation into your own words. At the same time, combined notes indicate that you're actively involved with your research material, that you're continually asking yourself, "What should I state in my own words? What is so informative, so interesting, so provocative that I want to use it exactly as it is, word for word?" Such questions prompt discipline and careful thought, two qualities that will serve you well as you move ahead to the next phase of your research—organizing and writing the paper, our focus in Chapter 20.

ACTIVITIES: LOCATING, EVALUATING, AND INTEGRATING RESEARCH SOURCES



1. Use the computer catalog to answer the following questions:
 - a. What are three books dealing with the subject of adoption? Of the Internet? Of urban violence? Of genetic research?
 - b. What is the title of a book by Betty Friedan? By John Kenneth Galbraith?
 - c. Who is the author of *The Invisible Man*? Of *A Swiftly Tilting Planet*?
2. Examine the computerized catalog entry below and then use it to answer the questions that follow.
 - a. Which catalog system does this library use?
 - b. What is the title of the book?
 - c. How many authors does the book have? What are their names?
 - d. Under what subjects is this book listed in the catalog?
 - e. When was the book published?
 - f. Assume you're writing a paper about the ways computers are being used in the education of deaf preschoolers. Considering the information on the card, would you try to locate this book? Why or why not?
3. Prepare a bibliography entry for each of the following books. Gather all the information necessary at the library so that you can write an accurate and complete bibliography entry:
 - a. Barbara Tuchman, *Practicing History*
 - b. L. Jacobs, *The Documentary Tradition*
 - c. Margaret Mead, *Coming of Age in Samoa*
 - d. Stephen Bank, *The Sibling Bond*
 - e. Ronald Gross, *The New Old*
 - f. Matthew Arnold, *Culture and Anarchy*

AUTHOR(S): Dominique Monolescu, Catherine Schifter,
Linda Greenwood

TITLE: The Distance Education Evolution: Issues and
Case Studies

PUBLICATION INFO: Hershey, PA: Information Science Pub., 2004

PHYSICAL DESCRIP: xiv, 326 p.; 27 cm.

SUBJECTS: Distance education—Computer-assisted instruction.
Higher Education—Computer-assisted instruction.
Educational technology.

1. CALL NUMBER: LC5803.C65D545 2004—STACKS—Checked Out

4. Using reference works available in your library, find the answers to the following questions:
 - a. When was the Persian Gulf War fought?
 - b. Who invented Kodachrome film, and when?
 - c. What is the medical condition *rosacea*?
 - d. What television show won the Emmy in 2003 for Outstanding Comedy Series?
 - e. What was artist John Sartain known for?
 - f. When was an African American first elected to Congress?
 - g. In economics, what is Pareto's Law?
 - h. In art, what is *écorché*?
 - i. Give two other names for a *mbira*, a musical instrument.
 - j. In the religion of the Hopi Native Americans, what are *kachinas*?
5. Select one of the following limited topics. Then, using the appropriate periodical indexes and bibliographies (see pages 543–544), locate three periodicals that would be helpful in researching the topic. Examine each periodical to determine whether it is aimed at a general, serious, or scholarly audience.
 - a. Drug abuse among health-care professionals
 - b. Ethical considerations in organ-transplant surgery
 - c. Women in prison
 - d. Deforestation of the Amazon rain forest
 - e. The difference between *Cold Mountain* as a novel and as a film
6. Select one of the following limited topics. Then, using the Internet, locate at least three relevant articles on the topic: one from a general-interest magazine,

one from a newspaper, *and* one from a serious or scholarly journal. Make a bibliography card for each article.

- a. Ordaining women in American churches
 - b. Attempts to regulate Internet pornography
 - c. The popularity of novelist and essayist Isak Dinesen
 - d. The growing interest in painter David Hockney
 - e. AIDS education programs
 - f. The global economy
7. Listed here are some of this book's professional essays, along with broad research topics that they suggest. Choose *one* of these general subjects and, using the Internet and/or the library's resources, do some background reading. (You should find helpful some of the sources listed on pages 540–541 and 543–544.) Keep an informal record of the works you consult. As you read, jot down potential limited topics. After doing some further reading on *one* of the limited topics, devise a working thesis. (Don't, by the way, feel constrained by the point of view expressed in the essay[s] that initially prompted your research.)
- a. "Sister Flowers" (page 167); "The Fourth of July" (page 208); "A Slow Walk of Trees" (page 364); "Black Men and Public Space" (page 412)
 - Preservation of cultural differences
 - Teaching about diversity
 - Relations between different racial or ethnic groups
 - b. "Family Counterculture" (page 6); "The Fourth of July" (page 208); "Shooting an Elephant" (page 213); "Charity Display?" (page 220); "Tweens: Ten Going on Sixteen" (page 245); "Doublespeak" (page 288); "Don't Just Stand There" (page 333)
 - Teaching morality to children
 - Morality in the mass media
 - Morality in the workplace
 - Sexual morality
 - c. "Psst! Human Capital" (page 301); "Cyberschool" (page 328); "Life as Type A" (page 441)
 - The impact of technology on everyday life
 - The increasingly fast pace of modern life
 - Technology and education
 - Technology and the workplace
8. Referring to paragraphs 7–10 in Scott Russell Sanders's "The Men We Carry in Our Minds" (page 295), prepare three note cards: a direct quotation, a summary, and a combined note. Assume you're using the Sanders essay to research equality of opportunity for different economic sectors of American society.