CHAPTER 4

Moving from Inquiry to Argument

Almost all researched writing involves taking a reasoned stand among consensus and controversies that other researchers have addressed and about which there is some disagreement. For example, you might investigate the advantages or drawbacks of organic farming, or the extent to which early education programs impact success in secondary schools. Notice, however, that even though these questions address controversies, they do not lend themselves to "yes" or "no" answers. Writing about the consensus and controversies in a field can help you understand the field better and develop more nuanced responses to your sources. Understanding how and why experts agree and disagree can help you move from researching a topic to making an informed argument about it.

MAKING CHOICES ABOUT TOPICS

Finding a topic for a researched project in college can be challenging because you must find a topic you care enough about to live with for some time. However, keep this process of choice in perspective. "Choosing a topic" from scratch is not a process much used in the workplace or even in academic research. Even though research is part of the work of many professions, the topic seldom needs to be searched for. The topic is usually simply there, as part of what a company produces or a case requires. An engineer may be asked to do background research on a certain manufacturing process, a medical researcher might look into the treatment of a disease by a certain drug, and a lawyer or paralegal might be asked to conduct research on a designated legal precedent. Academic researchers usually base their current research on questions unearthed in their past work or pursue projects for which they have proposed and received funding. Only occasionally does a researcher start from scratch, researching a totally new and different topic. These outside constraints and the need for continuity are major aspects of inquiry for most researchers.

If a specific topic is not provided by an outside source, most researchers find topics by a combination of reviewing what they have already done, talking about their semi-formulated responses and ideas with friends and colleagues, and browsing

until they find an idea that provokes a question or an argument. Like many students, even experienced researchers often find this phase of a project very frustrating.

THE ETHICS OF RECYCLING YOUR OWN WRITING

Many scholars who publish their research consistently use and reuse pieces of their own work, moving ideas, sentences, and sometimes paragraphs from a synthesis to a proposal to the draft of an argumentative paper. This practice is legitimate for students to follow as well, provided that you do it within the context of a single course, using your own, unpublished writing, to which you hold the copyright. Students who are required to write an argumentative research paper often find it more satisfying when they can draw on earlier versions of their work such as proposals, annotated bibliographies, summaries, and syntheses.

While some of the projects in the remaining chapters invite you to revise, rethink, and resubmit a series of pieces based on the same body of reading and research, it is usually considered unethical for students to submit work done in one course for an assignment in another course. There is something apparently inconsistent to this prohibition, since some faculty teach the same course many times, updating their notes and assignments as necessary. And invited speakers often give the same lectures over and over again to different audiences. For students, however, the point of taking a course is to learn to do new things, not to demonstrate what you already know, and so you are expected to do new work for every course.

On the other hand, sometimes you may begin an area of research in one course that you would really like to continue in another. If you should want to "recycle" a piece of work from a previous course, in a writing course or any other, propose to the instructor what you want to do and ask for permission to extend your earlier research. The instructor may want you to show him the earlier piece and explain (orally or in a written proposal) how you intend to produce a different or more mature version of the earlier project. You should expect to have to convince the instructor that you are proposing a project. You should expect to have to convince the instructor that you are proposing a major rethinking or expansion of the earlier work. You may need to demonstrate that the major rethinking or expansion of an investigation outweighs the advantage of exposure to a new set of issues. If you propose to revise or continue an earlier project, you should be willing to take "no" for an answer, if that is the instructor's decision.

FINDING A TOPIC FOR INQUIRY

Unlike many researchers in the workplace, students must often find a topic that interests them. What follows is a process to help choose and define a topic. This is not, however, a series of linear steps that you can follow and be done with but a recursive process, in which you can and should go back and forth from step to step until you find a research question in which you see the potential for projects that interest you (see Fig. 4.1).

Step 1: Decide on an Area of Interest

Most students start by deciding on a general area for inquiry and then experiment a bit to see what might be done with it. The goal of this sometimes messy process is to find an
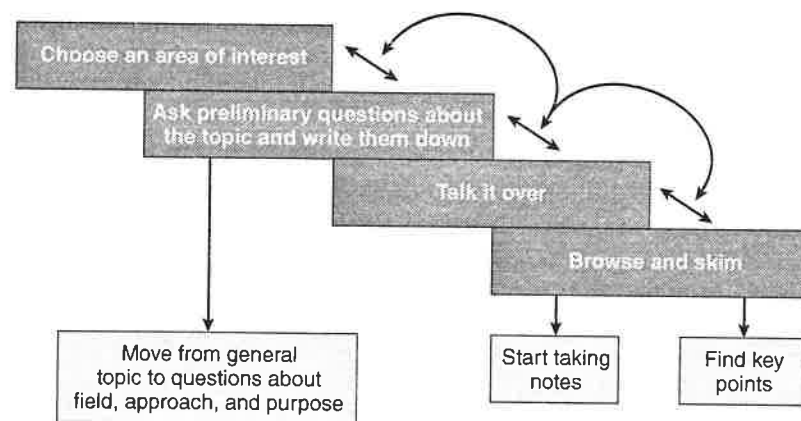
FIGURE 4.1 Choosing an Inquiry as a Recursive Process

can be made by people with similar warrants or basic assumptions. These questions must also provide a basis for reasoned argument within a field of study or work.

One place to start this process is by rethinking work you have already done, looking for a related issue you are interested in pursuing further. Some of the readings in this book touch on issues that might offer a starting place for an inquiry, for example, plagiarism, grading, and the way universities work. Each of those issues raises questions that could make good topics for inquiry and which draw on your experiences as students.

Suppose you wanted to pursue an issue about intellectual property. Some questions you might consider are:

* who owns "code" in computer science;
* the practices of parody and/or sampling in music or comedy, and the extent to which they violate the intellectual property rights (or artistic integrity) of the original artist;
* preventing or detecting plagiarism (What are the effective means? How much effort should be put into this?);
* recent attempts by movie producers to extend copyright protection;
* the history of plagiarism as a concept, and how it has changed over time; and
* the ethics of downloading music or other materials from the Web.

Or you might explore topics about professions and professional life:

* how professions like teaching or law or nursing have changed over time;
* whether and how physicians can maintain professional status in face of the growing power of HMOs and if they should try;
* how much responsibility nurses should be expected to take on;
* how schools can deal with the current shortage of science instructors;
* the effects of high-stakes testing on public education; and
* the effects of "No Child Left Behind" legislation, either locally or nationally.

There are many other topics you could consider. For example, you are apt to have questions about the field you want to major in, the profession you are aiming for, or a field that you want to learn more about. Once you decide on a field, start looking for the important issues that its researchers and practitioners are facing. You could also start an inquiry about activities that interest you, like computer games, music, sports, or movies; or you could start with social issues you care about, like global warming or genetic research. Look for news or magazine stories that mention academic research about the issue. Look for the aspects of the activity or issue that involve controversy or disagreement.

Step 2: List Preliminary Questions

With a small group of classmates, start describing what you already know about the topics that seem most interesting to you and generate some specific questions you might raise about these general topics. Use this discussion to decide on the general topic you will research and then to determine several possible ways of looking at it. Write down questions and new ideas as they arise in the discussion. For example:

* If you want to write about psychology, do you want to work with clinical psychology, experimental psychology, or physiological psychology? What are the relations between these subfields?
* Think about a problem or social practice, such as cigarette smoking, and consider what approaches different fields like medicine, psychology, marketing, and environmental engineering might take. Which approach do you most want to investigate?
* Draw questions from the kinds of controversies you find in a field that interests you. Are there controversies about safety issues (e.g., the safety of a particular medical treatment), ethical issues (e.g., what the social impact of building a dam might be), or issues of practice (e.g., the most effective way to teach students for whom English is a second or third language)?

Your questions should move toward greater specificity as you think and talk about your topic. If you start with several questions at the same level of generality, choose the one you like best and focus on that one. The more you write down your questions and responses, the better you will remember them as you take notes and do library research, and the more valuable this preliminary work will be to you later in the process.

A project analyzing how plagiarism affects college work might start with questions like these:

* A teacher once suspected that I had plagiarized. What do teachers look for when they grade papers to see if students have plagiarized? How do they know if the student plagiarized on purpose? Does it make a difference?
* What are teachers doing to prevent plagiarism? Some teachers at my school always fail students who have plagiarized. Who decides on these penalties? Do some teachers try to prevent plagiarism without using scare tactics?

A project examining the role of international teaching assistants at large universities might start with questions like these:

- Many classes at my school are taught by international TAs. How many? Are the numbers similar at other universities? Why do universities use TAs from other countries? What kind of training do TAs get before they teach? Is there some kind of requirement that must be met for training TAs, especially international TAs?
- I've heard some other students complain about taking courses with international TAs. What problems do these students complain about? Are there students who like having international TAs?
- What are some of the issues being discussed by university faculty and administrators regarding international TAs? Is this a controversial issue for your college or university? What are this university and others doing about it?

Step 3: Talk It Over

You need not develop your topic alone; most researchers work in groups, ranging in formality from the relatively tight and hierarchical collaboration of scientists and their students in a laboratory to informal networks of humanities researchers working in the same general subject area. Take advantage of any familiarity your classmates, instructor, and friends have with the questions that interest you, and discuss the possibilities for your investigation with them, taking notes on your emerging ideas and recording possible objections to them. It may seem unnecessary to take notes on these early discussions, but they can be very useful as you move into planning and drafting your project(s).

Your general purpose at this early phase of the process is to decide where to focus your inquiry; your purposes for specific projects will emerge from the assignments you undertake.

Step 4: Browse and Skim

To better understand the extent and context of what you already know about your questions, use what you know about finding and evaluating sources to locate and skim a few preliminary sources.

- Look for items in magazines, newspapers, and your textbooks that refer to academic research about your topic. Keep a list of these potential references and try to find a few in the library.
- Look for controversies in the field that will help you formulate questions that direct the inquiry.
- As you browse and skim preliminary sources, continue discussions with your research group about what issues seem to be important in the field and which controversies seem most interesting.
- Browsing can be more efficient when you understand the way much academic writing is structured. The end of the introduction and the beginning of the con-

argument. Beginnings of paragraphs very often refer back to the main issue and may introduce a line of reasoning or major supporting evidence. The ends of paragraphs often recapitulate and extend the point.

- As you move from a general topic to a specific issue or question, narrow your conception of how relevant particular sources may be to your specific inquiry, and narrow the focus of your browsing accordingly.

Identifying Key Words

Identify key terms used by an author or authors in a field. Key words are important words in the title and throughout the piece that may be repeated from source to source. For example, most of the words in the title of this textbook are key words: "Academic," "Research," and "Argument." In some readings, the key terms may not be this obvious, but they are always words that writers use to organize their ideas, that compilers of databases use to sort and retrieve sources, and that readers can, in turn, use to search for additional related sources. For some publications, authors are instructed to provide key words in order to ensure that their work can be retrieved by the particular academic community the author is addressing.

- If a journal article provides a list of key terms on its first page, highlight them as you read. In some electronic formats, you can use the search function to help you locate them and then analyze the places where they are used and the frequency with which they are repeated.
- If no key words are given, identify and highlight words that seem particularly important to the meaning of the article, particularly terms that you notice being repeated throughout the source. Becoming aware of key words will also enable you to find additional relevant sources through key word searching, to sort your own notes as you move from note-taking to drafting, and to start building coherence into your drafts early in the writing process. Using key words that are typical in a field also indicates your growing expertise and then helps establish your ethos.

Recognizing Authors' Cues

Authors also often provide cues to help readers identify key points.

- Look for the authors' cues to audience, purpose, and significance (see Chapter 2).
- Look for the authors' cues to the argument in a thesis phrase:

    The point of this paper [or argument, or line of thinking, etc.] is to . . .

- Look for transitional cues:

    Another reason this is important is . . .

- Look for cues to inferences and conclusions:

    This implies that . . .

    It naturally follows that . . .

- Look for self-references (*what I really mean is . . .*), which may creep into a piece when the author is stating or reiterating a crucial point. Writers in the sciences and many social sciences, however, rigorously avoid personal pronouns, and so their

Skimming

As you read, annotate, highlight, and take notes on the following:

- Identify issues of consensus ("what everybody knows") and of controversy, which are often indicated by cues to agreement and disagreement. Look for questions and controversies that do not invite simple "yes" or "no" answers.

- Identify specific claims the sources make.

- Take brief notes on where the authors position themselves within which controversies and which other authors they cite as representing various sides or approaches.

- Keep in mind the fallacies described in Chapter 1, and make notes when you find writers using them.

- List key words, meaningful terms that recur within a source or within a body of sources.

- List the warrants the sources share or do not share.

- Save this preliminary exploration to use as your inquiry proceeds.

Then make a preliminary idea map for your own use. It might look like a conventional outline, like a "point/counterpoint" argument, or like a series of islands of information and argument that you connect with arrows when you can. If you do not know where you stand, it is not necessary to fully commit to a final position, or even to completely shape your question(s) at this point, although you will have to do so eventually. Simply get as close as you can and record what you are thinking at this point.

Step 5: Choose Relevant Sources

This process of browsing, responding, and discussing your topic will be more efficient if you skim initial sources to judge whether a source is directly relevant to your issue, whether it may be background information, or whether it seems only marginally relevant. For example, if you were writing a paper on plagiarism in college:

- Recent sources that use terms like "plagiarism" and "college" or "university" in the title and as key words at the beginnings of paragraphs will probably be relevant to your inquiry.

- Recent sources that discuss cheating in college in general may offer some background but may be only marginally relevant.

- As you move toward a thesis, the range of relevance should narrow. For example, inquiring into "how common plagiarism is in universities" or "how universities combat plagiarism" will narrow the range of relevant sources.

- When you find a possible source, skim it to see how much it contributes to your inquiry. If it seems like a good fit, keep a reference for it for a "working bibliography" (described in Chapter 5), with whatever comments might help remind you to look at it again. It is sometimes useful to read a source that fascinates you carefully all the way through, even if it is not strictly relevant, since it may help you formulate your approach. Clearly, this kind of reading is less useful when you are

- When checking the references in a recent source, you may find references to earlier sources that use key words directly relevant to your own project. Think about the age and quality of these older references, using the Focus Points in Chapter 2.

- To establish your ethos in the field, aim to find the most important, authoritative, and reliable references concerning your issue, without packing your work with irrelevant references.

TAKING EFFECTIVE NOTES

The progression from finding a topic for inquiry to taking notes from sources is not very clear, because there is no clear boundary between consulting preliminary sources and continuing the inquiry. Finding and assembling sources involves exploring a field and listening to its conversations until you find yourself taking a position in them. Generally, writers start researching rather widely, and then narrow their research as they hone in on an issue and discover the opinion they are developing toward it. Because this process may stretch over a significant period of time, you can make research projects easier by taking good notes and keeping them well-enough organized to find them again when needed. As a specific inquiry becomes clearer, researchers generally find that some of their early work is not directly relevant. They put those notes in a separate set of files, for possible use on later projects.

Taking notes on your responses and developing questions can help you make informed decisions about what sources are most relevant as the research process goes on. With good notes, you can spend more time developing your responses and reasoning and less time backtracking to find and understand work you have already done. Good notes also help researchers avoid accidental plagiarism, as was described in Chapter 3.

The concept of "good notes," however, has changed considerably over the years. In the past, many researchers took notes by hand on index cards, which could later be sorted and arranged in various ways. While some researchers still take notes this way, many do not. Taking notes by hand often involves transcribing electronic text into handwriting and back into electronic text, a process that provides at least two opportunities to introduce errors like dropped words, misspellings, and transposed integers. With the advent of photocopying and computer technology, most writers collect and store research electronically. Many writers find that taking notes on a computer is preferable to writing notes by hand because the researcher can move text from notes to draft to revision by cutting and pasting, *not retyping*. Moreover, electronic files often provide easier ways to distinguish notes about sources from responses to them. For example:

- Attaching reference footnotes to specific quotations can let you transfer references from notes to drafts.

- Using the comment feature to record your responses to materials can distinguish your own thinking from that in the sources. You can also use a different font or color to maintain this distinction. If you are using your own computer, bookmarking online materials allows easy access to them as your ideas develop.

As you start taking more extensive notes, review the annotation and reflection strategies described in Step 4: Browse and Skim, remembering that the acts of reading and writing

There are still times when notes are taken by hand, such as when recording field observations or conversations. There are social and logistical inhibitions to using computers in some of these situations, although they are diminishing. For example, sometimes it is hard to take notes on a laptop in a one-on-one meeting or when visiting a site about which you need to write a report. In those cases, you may need to take notes on paper as you go along and transcribe them later. However, these conventions are changing with the increasing technical sophistication and popularity of electronic notebooks, handheld computers, and personal digital assistants, which seem less intrusive than conventional laptops. The tiny, inexpensive digital audio and visual recorders now available can be expected to bring about even more changes.

FOCUS POINTS: TAKING RESEARCH NOTES FROM TEXT

- *Start taking notes by skimming and reading selectively*, looking for particular issues that interest you within a wider topic and for sources that refer to each other or to the same sources. Consider the relevance of sources by quickly skimming them, identifying in your notes (by highlighting and making annotations on your own print copy or on electronic text, if possible) those parts you might want to return to. Sometimes it helps to indicate, either on the source itself or in a separate prewriting file, your impression of how useful you think some sources will be. Record citation information even when just starting to skim, in case you later decide to return to a source you originally thought irrelevant.

- *Examine the sources for reliability*. (Refer to Focus Points: Evaluating Sources, p. 29.)

- *Keep copying errors from creeping into your draft* by taking notes electronically and cutting and pasting quotations (once you've double-checked them for accuracy). When working from electronic sources, you can sometimes cut and paste sentences and paragraphs from sources directly into your notes. However, whether you copy or cut and paste, be careful to avoid unintentionally plagiarizing. Failing to indicate clearly when you are using someone else's ideas and exact words is considered to be a serious form of plagiarism—*even if you cite the source.*

- *Distinguish between a source's ideas and your own* by using a different font or highlighting color. Choose a method and use it consistently.

- *Put quotation marks around quotations copied from the source* and pasted into notes, even short quotes (2–3 words in the same order), and keep track of page numbers at the end of each paraphrase, summary, and quote. Even long quotations should be put in quotation marks as you cut and paste or copy; you can decide later what kind of punctuation (quotation marks or indentation) should be used in the final draft.

- *Clearly indicate in the notes when the author is quoting or paraphrasing another source* and whether the author is agreeing or disagreeing with other sources. If possible, copy the author's citation into your notes, in case you want to use the "embedded citation" in your own paper.

- *Collect the information you think you will need from each source, once,* preferably electronically, and cut and paste from your original notes into the drafts you write. Avoid rewriting reference list entries, because every rewrite risks introducing error in content or format. You can write the reference information at the begin-

be sure that the information stays with your notes about a source, even if you use only part of the notes when drafting.

- *Go back to the sources and double-check all quotations* before ending a session of reading, note-taking, and copying to make sure that they are exact and have the necessary reference information. This practice can prevent a lot of backtracking later. If possible, keep electronic or hard copies of sources in case you need to go back and check for accuracy. If you get confused about context or authorship, it pays to be able to check sources quickly and easily.

Collecting Reference Information

When working with sources, always collect the information you need for references as you go along, because backtracking is time-consuming and frustrating. Many journal articles put a complete reference on the first page, and now that photocopying and downloading are such common practices, if your source has such a reference, you can merely cut and paste it into a file for sources, or photocopy and file it. Different citation styles require slightly different information, but you will have most of what you need if you collect the following information:

- For all sources, record the author, title, and year of publication.
- For books, add the place of publication, publisher, and edition if it is not the first.
- For articles in journals, add the journal name, volume and issue numbers, and page numbers.
- For articles in magazines and newspapers, add the publication name, full date, page numbers, and section number for newspapers divided into sections.
- For online sources, keep the information from the medium of initial publication, and add the URL and date you accessed the site (such as the journal or newspaper an article came from).

Consult the Quick Guide to Documentation at the end of this book, which is a short reference for formatting information for particular styles.

EXAMPLE 4.1 *Sample Preliminary Notes for Paper on Plagiarism*
See Chapter 8 for a draft of this paper.

Plagiarism

Sources Used

Howard, Rebecca Moore. "Forget about Policing Plagiarism. Just Teach." *Chronicle.com.*

Chronicle of Higher Education, 16 Nov. 2001. Web. 17 Jan. 2008.

McGrath, Charles. "Plagiarism: Everybody Into the Pool." *New York Times* 7 Jan. 2007:

C33. Print.

"Online Tool Helps Universities, Colleges Fight Plagiarism." *Community College Week* 15.12

Robillard, Amy E. "We Won't Get Fooled Again: On the Absence of Angry Responses to Plagiarism in Composition Studies." *College English* 70.1 (2007): 10–31. Print.

Straw, Deborah. "The Plagiarism of Generation 'Why Not?'" *Community College Week* 14.24 (2002): 4–6. Print.

Consensus

Plagiarism is easier and more common on college campuses than ever before (Howard, "Online Tool," Straw).

Plagiarism is a problem.

Online plagiarism is even easier.

Cheating/dishonesty vs. misunderstanding or insufficient knowledge (called "patchwriting" by Howard).

Controversy

Difference between cheating and "patchwriting"? (Howard)

Difference between stealing and developing ability to use sources?

My response: How do we identify motives? How to be fair when we know some students cheat?

Developing as writers/writing as development

Punishment or education???

Should schools pass students who do not understand how to use sources and so "patchwrite"? If so, at what levels?

Questions

Should teachers be held responsible, in part, for giving their students opportunities to plagiarize? (Howard, Straw, Robillard)

Is the increase in plagiarism due to an inherent change in the values/assumptions of today's students? ("Online Tool," Straw, McGrath)

What kind of values do I want students to have and schools to help maintain? How can this be done?

EXAMPLE 4.2 *Sample Preliminary Notes for Paper on International Teaching Assistants* See Chapter 9 for preliminary and final drafts of this paper.

International TAs

Sources Used

Davis, Stephen F., and Jason P. Kring. "A Model for Training and Evaluating Graduate Teaching Assistants." *College Student Journal* 35.1 (2001): 45–51. Web. 8 August 2008.

Johnson, Susan M., and Xia Li Lollar. "Diversity Policy in Higher Education: The Impact of College Students' Exposure to Diversity on Cultural Awareness and Political Participation." *Journal of Education Policy* 17.3 (2002): 305–320. Print.

Sarkodie-Mensah, Kwasi. "The International Student as TA." *College Teaching* 39.3 (1991): 115–16. Print.

Smith, Rosslyn, et al. "Crossing Pedagogical Oceans: International Teaching Assistants in U.S. Undergraduate Education." *ASHE-ERIC Higher Education Report* 8 (1992): n. pag. Web. 6 Nov. 2008.

Consensus

How to train graduate teaching assistants is a major issue in higher education (Davis and Kring, Smith).

Achieving diversity is a priority for most universities and can be beneficial to students (Johnson and Lollar, Smith).

Teaching opportunities help graduate students (Davis and Kring).

Both ITAs and their students are responsible for cultural conflicts and breakdowns in communication (Sarkodie-Mensah, Davis and Kring).

ITAs will probably continue to be an aspect of education at big universities. If there is a problem, it is not apt to go away.

My response: My school does not have graduate students. Is this an advantage or a disadvantage to me? My school does have some faculty from foreign countries who were educated abroad and who use accented English. How does the issue of ITAs relate to the

Controversies

Is this really a problem? How to deal with it?

Americanization of ITAs

Professional development for ITAs

My response: Should these good things take place at the cost of tuition-paying American under-graduates?

International understanding for undergraduates

Globalization—what do American students need to know about foreign countries?

My response: Yes, this is dismal. Few of us even know a foreign language very well—much less its culture and customs. Many of us have never been out of the United States. Can we compete?

Questions

What is the best method for evaluating and training ITAs?

Is it enough to just have education programs for the TAs, or should the students be educated as well?

Deciding on an Appropriate Level of Detail

Take more detailed notes whenever you read material you *know* you want to put in your paper or when you discover something highly unusual or unexpected in the source, such as an example that really stands out, a line of reasoning that you have not seen before, or warrants that are not usually applied to the issue.

- All the time you are taking notes, keep actively thinking about what specific questions you might pose concerning this material, how it might modify your argument, or how you could synthesize it with other materials.
- In general, take notes in great detail only in rare book rooms and similar situations where you cannot borrow, photocopy, or download the source—under those circumstances do take copious notes.
- You can cut and paste an interesting but probably irrelevant piece from a source into your notes, making a marginal note to yourself. If you are working with hard copy, annotate your proposed use for it and your response. But try to keep your focus on pieces that are directly relevant to your topic.
- Photocopying or printing out sources to reread can be helpful as you develop a clear thesis and anticipate the need to review the sources most relevant to it. But keep relevance firmly in mind as you choose materials to copy.

If the research is going well, most researchers, while skimming, remember their

sources. This is an important step in understanding the field, finding your own position in it, and ultimately formulating a thesis, so do not ignore these responses. However, as suggested previously, be sure to distinguish responses from notes on your sources by using a different colored pen or a different kind of font or color, or by highlighting. The important thing is to choose a system that suits you and use it consistently. When returning to notes after a period of time, you must be able to distinguish your own language, ideas, and responses from those drawn from a source, and the easiest and most reliable way is to consistently indicate whose ideas are whose while you are taking the notes.

REAL-TIME NOTE-TAKING

Taking notes on books, articles, or Web sites is easier than taking notes on lectures or discussions because you can usually go back and reread written texts another time to make sure you got the argument right and caught the author's cues about main points and positions. Taking notes on a lecture, discussion, or other nonrepeatable kinds of event requires that as you listen you anticipate the organization, recognize the main points, and decide how much detail you may need later. This kind of note-taking can be important, however, because taking real-time notes accurately contributes to your ethos—and not only in school. Good notes are the raw material for a number of crucial professional activities, such as producing minutes of meetings, writing a memo recapitulating your understanding of a meeting or conveying its results to your colleagues, and moving from an oral agreement to a binding contract.

Taking notes on a lecture is probably the easiest kind of real-time note-taking because lecturers tend to use the same kinds of cues as writers, and in the same places, only more strongly and consistently. They are apt to repeat key terms to be sure listeners catch them. Many lecturers use the "tell them what you're going to tell them, say it, then tell them what you've told them" model, which gives the audience the chance to catch important terms and concepts missed or misheard the first time. Taking notes on a discussion—which may go anywhere—requires sorting through a lot of detail as it goes along, because unless there is a strong discussion leader, there may not be much control over the pattern of the discussion, leaving the note-taker to determine which points are most important. Taking notes on a phone conversation, a meeting, an interview, or an onsite visit requires similar decisions about the meaning and purpose of the event and about which details to record; how you make these decisions will depend on the purpose of the report you anticipate writing from the notes.

FOCUS POINTS: REAL-TIME NOTE-TAKING

- Record the time, place, and speaker's name accurately. When taking notes in situations where there is more than one speaker, make sure you attribute remarks correctly or write down that you are not sure exactly who said what.
- Look for and identify the main points as well as you can as you listen. Good speakers use verbal markers and cues and repeat their main points and key terms.
  - In a standard lecture format, the speaker summarizes what she or he is going to

- When taking notes on discussions, which can seem to ramble, listen for explicit links to points made by earlier speakers. These cues often mark the beginning of an agreement, disagreement, or elaboration.

▩ Decide on the level of detail you are trying to capture, and make sure your record is as accurate as possible.

- If you realize you've opted for too much or too little detail, change your strategy immediately and go forward with the note-taking—*don't try to go back*.
- Identify statements you suspect you may not have recorded accurately. Some writers use a question mark in the margin, before and after a questionable note, or use a consistent color to highlight points about which they are uncertain. If you later decide to quote or paraphrase, you will need to clearly remember how reliable each part is.

▩ If there is a chance for follow-up, ask questions to clarify the details you did not understand the first time.

▩ Listen for speakers' references to sources and try to record them accurately.

▩ As soon as possible after the event has ended, review your notes, filling in the blanks and adding whatever else you remember. "Debrief" yourself and any collaborators, and record your immediate responses, clearly indicating that they are *responses* rather than notes.

MOVING FROM NOTES AND RESPONSES TO ARGUMENT: FINDING A PRELIMINARY THESIS

In Chapter 1, the idea of the thesis was raised as an essential point of developing an argument: "Although an argument can start with a topic or question, it moves to make a claim, which is stated in a thesis statement (argument to be made) or hypothesis (proposition to be tested)." While scientific genres like laboratory reports usually begin with an hypothesis, many genres in other fields begin with a thesis: an argument that will be supported with evidence and that often refutes other ways of thinking about the topic. However, the actual process of writing tends to be recursive, and many writers start drafting before they have a final, argumentative thesis, using instead a "preliminary thesis" that they will revise as their argument becomes clearer (see Fig. 4.2).

Often, a preliminary thesis resembles an hypothesis because it is posed as a question yet to be answered. In moving from inquiry to argument, think about moving from a question to an arguable position. A preliminary thesis with potential is a clear, succinct question that a researcher finds as he or she surveys a field. You can start developing that question by reviewing your early browsing and skimming.

▩ Review the list of the initial questions raised in Step 2: List Preliminary Questions and your responses to the sources you have read.

▩ Talk with a group of your fellow researchers, and shape your responses to fit the kinds of researched projects assigned.

▩ Based on your browsing, skimming, and library research, find a controversy that interests you, and use it to formulate a working question or problem.

▩ Make sure the question does not invite a "yes" or "no" answer, but rather a "why," "how," or "to what extent" approach and that it addresses an ongoing controversy rather than a single position.

EXAMPLE 4.3 *Revised Thesis Question for a Paper on Plagiarism*

Topic: Plagiarism in college

Question: Is plagiarism a problem in colleges?

Controversy: Different responses to plagiarism

Revised question: What different responses to plagiarism are made by university faculty and administrators?

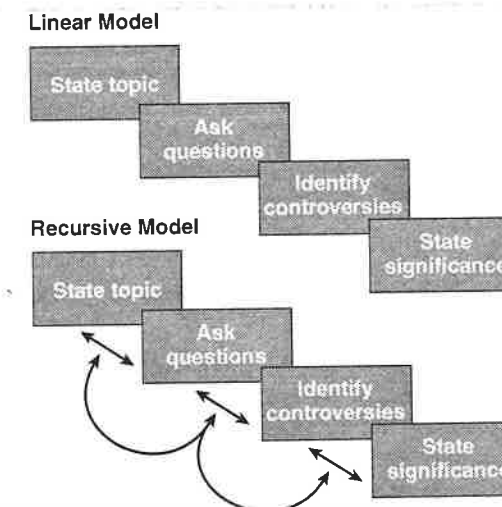**EXAMPLE 4.4** *Revised Thesis Question for a Paper on International Teaching Assistants*

Topic: Resistance to international graduate teaching assistants in undergraduate courses

Question: Why do American undergraduates often resent being taught by international teaching assistants?

Controversy: How to understand and respond to students' resistance to international graduate teaching assistants

Revised question: Why do some undergraduates resent being taught by international graduate teaching assistants, and what do university administrators do about it?

After narrowing and shaping your research questions, start writing a claim for which you might argue. Next, write a short statement of the value or importance of what you propose to do—what larger question or concern it answers. In short, ask yourself right from the start—"So what?" This need not be an earthshaking significance. Your research may not uncover the definitive answer to the question, but you should be able to foresee the significance of your work for your audience—your fellow students and instructor.

Linear Model

State topic → Ask questions → Identify controversies → State significance

Recursive Model

State topic → Ask questions → Identify controversies → State significance

If you have not had much experience constructing a thesis, you will find that this too is a recursive process. The following template offers a way to construct a preliminary thesis from your notes, discussion, thinking, and questions. The following formula for thesis development is derived from *The Craft of Research*, an excellent advanced research guide written by Wayne Booth, Joseph Williams, and Greg Colomb. As with all formulas, use this one if it helps you understand what a thesis should do, and only as long as it continues to help. Over the years, many teachers and researchers have found this to be a useful way to start to organize their thinking.

I am going to look at _____, in order to find out _____, because it will address or resolve this larger problem: _____.

EXAMPLE 4.5 *Preliminary Thesis for Paper on Plagiarism*

I am going to look at *plagiarism at American colleges*, in order to find out *how much of a problem it is and how colleges have tried to solve it*, because it will address the larger problem *of how to teach students moral thinking and ethical behavior.*

EXAMPLE 4.6 *Preliminary Thesis for Paper on International Teaching Assistants*

I am going to look at *the complaints about the use of International Teaching Assistants in American Universities* in order to find out *how much of a problem it is and how some major universities have dealt with it* because this information *may help* solve the larger problem of *how best to adapt American students and international instructors to each other.*

Although you may not yet be ready to make a final statement about the results of your inquiry, a formulation like this can help distinguish what will be most relevant as you search for, skim, and take notes on additional sources. Again, like most formulas, it is useful only insofar as it helps you organize and state your ideas. Therefore, consider this preliminary thesis as the start of another recursive process—you can and probably will return to it several times to bring it into accord with your growing understanding as you move deeper into the process of reading and writing about your topic.

USING YOUR NOTES AND RESPONSES: MOVING FROM THINKING TO PROPOSING

Research is presented in different genres—that is, in different forms that may have different purposes, audiences, and conventions, and which may vary from field to field. The genres described throughout this book invite you to call up and rework notes and previous assignments related to your inquiry. Many researchers work this way; it is easier not to have to start with a blank screen, and it allows you to refresh your memory about what you already know about a topic. This recursive approach to writing, like the recursive approach to choosing a topic and conducting research, demands that you read your own work critically, adapt your thinking to what you learn over the course of a project, and

your thinking about the topic may change substantially from the initial questions or preliminary thesis. Instead of trying to fit the results of an inquiry into a preexisting thesis, researchers use a recursive, revision-oriented approach, in which the writer revises the thesis to new results of the inquiry. Moreover, as Richard Feynman affirmed in the passage quoted in Chapter 1, a researcher cannot know the answer to a question before conducting the research. Preliminary research raises questions and helps focus an issue; later research can deepen, and quite probably change, your understanding of the topic.

Proposing Research

A proposal is written to persuade a specific reader or group of readers to accept a project before the major research is begun or while it is in its early stages. For example, a researcher thinking about writing a book proposes the project to an editor, much as students beginning major research projects may be asked to propose them to the instructor who will assist with and evaluate them. Proposals are also commonplace in business, the professions, and community work; they constitute a formal request for support and a promise of what will be produced. In a research proposal, you need to convince your reader:

- that you have identified an important problem or controversy,
- that you have a sound approach to resolving it, and
- that you have both the knowledge of the field and the resources necessary to complete the project successfully.

Proposing a project serves two purposes, in addition to providing experience in writing in an important professional genre. First, a proposal can help you more clearly see and shape the purpose and direction of your research. Second, a proposal can demonstrate more clearly than your less formal work that you have a viable project, that you are finding and thinking about your sources, and that you are developing claims about your topic.

Drafting a Research Project Proposal

Research proposals are usually based on only preliminary research into a particular question, although usually the proposal writer has at least some experience in the field. Like other genres of researched writing, a proposal should demonstrate that you understand the claim in relation to the consensus in the field and should suggest how the conclusion might impact the way an audience (either inside or outside the field) thinks or acts about an important controversy. You are not expected to have a finished conclusion at the beginning of a project. However, the proposal should show that you know enough about the work in the field to take part in its conversations, and it should convince its audience that you have a definite plan to follow from the proposal to the final finished product or products. Although students can expect that their teachers will accept most project proposals sooner or later, outside the classroom, proposals are almost always in competition with other proposals and the acceptance rate may be low.

A proposal is written to be judged—either accepted or rejected. Passing a serious and competitive review, then, is central to the purpose of a proposal and must shape the writer's conception of its audience. Because of the competitive nature of most proposals, three aspects of proposal writing are particularly crucial: meeting deadlines, staying within

Sometimes a request (or "call") for proposals provides an outline or a set of questions to be answered, in which case the writer should follow that guidance very closely. The writer should also identify key words in the call and repeat them in the proposal.

FOCUS POINTS: PROPOSAL QUESTIONS

In general, a proposal should answer the following questions and will usually follow this general order. In the following list, the questions in bold type should be answered directly. The questions in italics are underlying questions; they may be answered less directly, but they will certainly matter to the readers (evaluators) of the proposal.

- **What is the problem?** *Why should we care about it? To what larger conversation in the field is it relevant?*
- **What is your solution?** *Why should we think this solution will work?*
- **How are you going to arrive (or how did you arrive) at your solution?** *Why should we think your approach to this project will be successful?*
- **What product will be the outcome? When will it be finished?** *Why should we believe you?*
- **What resources will be used/needed? What will it cost?** *Are the expenditures appropriate? Do you have sufficient funding? Will the outcome be worth it?*

FOCUS POINTS: DRAFTING AN EFFECTIVE PROJECT PROPOSAL

You should follow these steps to make sure you are creating an effective proposal:

- Review your questions and thesis.
- Consider the kind(s) of documents you have been assigned. How can you shape your inquiry to produce these genres?
- Look at what you have already written about your research and responses, your argument and its significance.
- Write a first draft of the proposal, answering the questions above to propose the documents you expect to produce from your inquiry.
- Rethink and revise your proposal to highlight your expertise in the field and to address the audience who will be reading it. Consider the knowledge the readers (evaluators) will have—and will expect you to have. At what time will the audience expect citations and references? In the proposal itself? In the working bibliography? In an annotated bibliography produced near the end of the project?

EXAMPLE 4.7 *Sample Proposal for an Inquiry about Plagiarism*

This is a proposal for a series of assignments based on a student's inquiry into why plagiarism is a problem in universities and what universities can and should do about it.

Plagiarism is a very important issue for college students, because failure to understand what it is and how to avoid it can lead to serious consequences. I became interested in plagiarism because when I was in high school I was accused of plagiarizing

made one of my English teachers believe I had plagiarized an essay on Herman Melville. At the time I thought this was completely unfair, but now that I've done some reading about plagiarism, I've started to understand how it could happen. The problem I want to work with really has two parts. One is the question of why plagiarism is such a big problem in universities, and how they are dealing with it. I will investigate Web sites that sell term papers as well as anti-plagiarism sources and articles from various places about when plagiarism occurs and how it can be fought. The other part is how students can learn to avoid plagiarism—through learning good citation practices, but also by developing an ethic of independent thinking that would make copying someone else's work literally unthinkable.

My project will have three major products. First, I will produce an annotated bibliography that describes and evaluates some of my reading about plagiarism, derived from the working bibliography written for the assignment in Chapter 5. Second, I will write an "I-Search" paper that describes the process of my research and relates what I have learned from the sources to my own personal experiences with using sources and being accused of plagiarism and to my ideas about independent thinking. Finally, working with my research group, I will participate in creating a Web site designed to teach students how to avoid plagiarism and how to think about it. The Web site will include links to bibliographies and resources about plagiarism, links to our school's plagiarism policy and to policies at other schools, guides to using sources carefully and responsibly, and other materials designed to be informative and comprehensive about the issue. Our focus will be on how to avoid plagiarizing, but we want to base it on a fully comprehensive understanding of plagiarism, not simply preach about how plagiarism is bad and how to cite sources.

EXAMPLE 4.8 *Sample Proposal for an Inquiry about International Teaching Assistants*

This is a proposal for an argumentative research paper about why international teaching assistants are seen as a problem and what can be done about it:

At many large research universities, undergraduate students take many of their first- and second-year courses with graduate teaching assistants. While most courses in fields like English and History are taught by American graduate students, international teaching assistants are very common in mathematics, science, and engineering fields. Many undergraduates consider taking courses taught by international graduate students to be a

teaching assistants, that their TAs do not understand American students and their expectations, and that they are getting an inferior education because they are not being taught by Americans.

In my research project, I intend to investigate the use of international teaching assistants in order to see whether they actually hurt the education of American undergraduates. I will look at why universities hire these students, taking a look at the history of the practice of using graduate students to teach undergraduates. I will try to find out about how the graduate teaching assistants are trained for their positions, and the special problems they face in adjusting to American academic life and expectations. I will also investigate whether there are programs to help American undergraduates adjust to instructors from other countries, which I think are in place at some universities.

The most important part of my research will be trying to find evidence that will let me argue that having international teaching assistants is actually an advantage for American undergraduates. These instructors can give us exposure to foreign countries and different languages, and give us experience in hearing and accepting accents and ways of speaking and thinking that are different from the ones we are used to. In many high schools, we seldom run across anyone who is very different from us. Even if there are some international students in a school, it is even rarer to have people of other nationalities, religions, and languages in positions like teachers. It is easy for American students to live separately from people who seem different, but this is not very good preparation for a working world that is increasingly international. I think it is a very good opportunity to learn to understand and respect instructors with different styles of speaking, behaving, and thinking, and I hope to find evidence that will allow me to make a convincing argument about this experience.

My project is going to result in an argumentative research paper. My thesis at this point is as follows: I am planning to investigate why American students have difficulty adjusting to international teaching assistants in order to argue that instead of complaining about instructors with foreign accents and different educational experiences, we should appreciate the value of studying with TAs from other countries and cultures.

REVISING A PROPOSAL

Because proposals are so important, they are generally reread and revised several times before submission. The questions with which you started must all be fully addressed with-

to review a proposal and shape your revisions of it. Notice that the revision questions ask you to consider major rhetorical issues about how you represent your project to a reader. Although these questions do not directly address editing sentences, your language will often become clearer as you reconsider how to say precisely what you intend to communicate. Remember that clarity and correctness are very important to readers of proposals.

FOCUS POINTS: SELF-EVALUATION FOR REVISING THE PROPOSAL

Reread the proposal, marking the draft where appropriate and writing down the answers to the following questions.

- What is the purpose of your project? Describe in informal words what you intend to do with the results of your inquiry. Does the proposal clearly state your plans?
- What is the larger significance of this investigation—what bigger question might it answer, and how does it fit into the current literature in the field? Are these relationships clearly stated? Is your plan for the project clearly directed toward achieving it?
- What parts of the proposal do you really believe in? Indicate this in the margin.
- What parts of the proposal seem weak to you? Are there points where you are not sure that a reader could follow it? Are there parts that you have other questions about, either questions about whether your representation of the issue is accurate or questions about the clarity of what you have said. Identify these parts in the margin, and write your specific question(s), either in pencil or by using the comment function of your word processing program.
- Consider how the topic, question, or significance could be restated even more clearly and precisely.
- Have you edited the proposal for sentence accuracy and clarity and then proofread it carefully? Since proposals tend to be competitive, you should not run the risk that your audience will interpret poor proofreading with poor performance on the project.

Exercises

4.1 FINDING A TOPIC

1. Review the research you have done so far. Follow the Steps toward Finding a Topic, taking notes on how your thinking about the topic has changed as you work through the process.
2. Decide on a topic or question. Find a preliminary source with references, and look for sources you might use to develop your topic.
3. Write down the questions you have about the topic, and record (using a map, outline, list with arrows, or whatever method you find comfortable) what you see as the relationships among them. Make a shorter list of questions that you would like to pursue in more detail.
4. Take preliminary notes on your experience with reading and thinking about the topic

4.2 WRITING A PRELIMINARY THESIS

1. Generate a preliminary thesis from this early work, using one of the processes described in this chapter (or another that works for you).
2. Make a list of the key words you have identified.
3. Assemble your list of sources you think you will need to consult. What additional sources will you need to produce the writing assignments for which you will use it?
4. Let your preliminary thesis sit for a few days while you look for these additional sources. Then go back to your thesis to decide whether you like this question well enough to continue working on it. If not, try to find a way to use the research you have already done in a way that is more interesting to you. Since defining your project is a recursive process, try asking new questions and talking them over with classmates and your instructor. Go back through as many steps as necessary to find an issue you can enjoy working with.
5. Either revise your questions and thesis, based on your rethinking of the project, or redefine your topic.

4.3 QUESTIONS FOR DISCUSSION AND INFORMAL WRITING

1. Using the notes you took while searching for your topic, describe the process you used to find your topic and initial sources. How might you do it differently next time?
2. How has your understanding of your topic changed as you have read in the field? Can you see your topic in terms of some of the concepts of argumentation that have been raised so far, such as warrants, reasons, examples, and so on? What kinds of reasons and evidence do you expect to find to support or extend your ideas?
3. At what point can a student writer assume sufficient expertise to write with at least a semblance of authority about an issue about which experts disagree? What is a student's responsibility to the field? To your classmates and research team? To a larger public?

4.4 PROPOSING A RESEARCH PROJECT

Follow the guide to writing proposals in Focus Points: Proposal Questions (p. 78) and Drafting an Effective Project Proposal (p. 78). If you are producing a series of different projects, the proposal should demonstrate how they build on each other. (See Sample Proposal for an Inquiry about Plagiarism, p. 78.) If you are working toward a long argumentative paper, the progress toward this final product should be the focus of the proposal, with preliminary work clearly leading to that final product. (See Sample Proposal for an Inquiry about International Teaching Assistants, p. 79.) Whether your proposal is written or oral, consider carefully how to convince your audience (the class and your teacher) that you have identified an important problem or controversy, that you have a sound approach to resolving it, and that you have both the knowledge of the field and the resources necessary to complete the project successfully.

1. Write a proposal of no more than 500 words. Identify the significance of your prospective work, the issues you will examine, and the documents you will produce.
2. Prepare and give an oral proposal presentation of no more than ten minutes that fulfills the same goals as a written proposal would. You should not read your presentation or speak from notes of more than a few key words. (The expectations for oral presentations that Professor Way outlines in Chapter 7 are widely held in business and the professions.)
3. Augment your presentation with visuals and request questions at the end. See Appendix A for information about developing oral presentations and Appendix B for constructing effective visuals. Prepare a short summary of your proposed project as a handout to distribute at the end of the presentation.

Using the Library and Its Databases Effectively

Contemporary libraries are Web sites at least as much as they are buildings, and many students and faculty use the library Web site more than the physical building. In most academic libraries, the rows of card catalogs have been replaced or at least supplemented by the library's online catalog, and all sorts of reference resources are available online. This development has made research much faster and easier in many cases, and has made a great number and wide variety of sources available to more people than would have been imaginable a generation ago. However, although the Web can be a tremendous resource for students, it is a dangerous resource because *anybody can put up a Web page on any topic for any reason* and at much less expense than publishing in print. Because the Web offers such great freedom to circulate information, researchers using the Web need to be particularly careful to know the source of information they find there and to evaluate it carefully.

General open Web searches (like Google searches) give results of varying quality. While they may provide some useful sources, often the results reach into the tens of thousands. By contrast, library Web sites (both university and public) provide databases that allow researchers to filter results, including options for limiting searches to specific genres and dates and for accessing only peer-reviewed sources. Peer review (i. e., evaluation by recognized experts within a particular academic discourse community), as discussed in Chapter 2, generally ensures greater reliability of sources accessed on the Web because readers know that experts in the field have examined and critiqued these sources before publication. However, even when conducting research through library databases, you need to consider the credibility of the documents you choose. Peer review is only one criterion to consider. Other criteria include when the source was written, who published it, the qualifications of the author, and the source's relevance to your topic. But compared to open Web searches, it is often easier to find reliable and relevant sources on library Web databases.

As you search library databases, be sure to consciously follow your links and to occasionally check the Web addresses you access. Sometimes, a few mouse clicks can

involves not only knowing how to find information, but how to evaluate, organize, and use it. The more easily evaluated sources are apt to end with specialized domain names, like the suffix **.edu** (indicates a college or university) or **.gov** (indicates a government body). You may also find material at URLs with other common suffixes: **.mil** (military), **.net** (network organization), **.org** (nonprofit organization), and **.com** (commercial).

Some university and government Web sites serve as the original medium of publication for current and useful information. Others provide access to articles or other material originally published elsewhere. In these cases, look for the citation for the original publication. However, although **.edu** denotes a college or university address, be aware that a tilde (~) in an **.edu** address may indicate the site of an individual who is authorized to use a university's Web address (a student, for example), but it does *not* indicate authorization or authentication of the material on the page by the university. Students and faculty at American universities have considerable freedom to put materials and links on their Web sites, material that is only as reliable as its source.

LEARNING TO NAVIGATE THE LIBRARY

Your instructor may invite a college librarian to give a workshop or library tour as an introduction to finding and using library resources. In addition, your library's home page will lead you to both the catalog and whatever special services are available to students. Use this information as a starting point, and then try to get to know your library for yourself.

One of the most important resources in every college library is the *reference* desk; reference librarians really know how to find things, and they tend to enjoy the search. Although they may be put off by students who come in at the very last moment and expect a librarian to do their research for them (and who would not resent that sort of imposition?), reference librarians are usually willing to help students not only locate sources but also understand the process of finding them.

Some libraries have e-mail or telephone reference services as well, which can be a big help when you are working from a distance and just cannot figure out how to find something—or when you are not even sure what you are looking for. Many university library Web sites have extensive online workshops on information literacy, including, for example, research guides, tutorials on searching for and evaluating sources, databases, and direct access to a reference librarian. A short list of those is provided on page 88.

RESEARCH TOOLS ON THE LIBRARY SITE

- Most college and university library Web sites provide access to a range of databases. Databases allow you to search online bibliographies (lists of publications in various disciplines, accessible by subject, author, title, and key words), to download abstracts (summaries) of articles, and sometimes to download full journal articles.

- Library Web sites usually subscribe to dictionaries, encyclopedias, and other online reference materials and sources and to services like *JSTOR*, which allow you to access complete journal articles without paying for them yourself.

- Libraries also usually subscribe to major newspapers and newsletters. These may be accessible directly on the Web, but often charge direct users for downloading articles or for using their archives (to find articles older than a week or a month).

FOCUS POINTS: EFFECTIVE SEARCHING PRACTICES

It can be easy to get lost when searching for information on a topic. The key to good research—on the Web or elsewhere—is to start early.

- Give yourself time to consult with librarians and professors, who may be willing to help even if they are not immediately available at the moment you make a request.
- Give yourself time to make mistakes and get lost.
- Give yourself time to request books and articles through interlibrary loan.
- And give yourself time to follow your own interests as you move from a general topic toward a specific inquiry.

As you find and collect sources, keep in mind the questions raised in Chapter 2 about their validity and relevance.

SEARCH ENGINES AND DATABASES

As you plan your research questions, try to sharpen and refine them from broad research questions to more specific ones. Similarly, as you move forward in your research, you should refine your search methods. Be sure to keep in mind the ethos of your eventual paper by considering how the research you choose to include in your project demonstrates your own credibility and reliability.

General search engines (like Google or Yahoo!) can be useful to locate people, institutions, and some products, but they can sidetrack students learning to do academic research. For example, a recent search for the word *plagiarism* on Google Scholar yielded over 42,900 entries—clearly many more than anyone could possibly evaluate. Search engines leave much of the work of evaluation to the user, even with the most effective key word searches, because they arrange sources by popularity, not credibility. Everyone knows that search engines and other general reference tools like ask.com and Wikipedia can be very useful for checking matters of common knowledge, but because they list sources in the order of how frequently they are accessed, they can also lead users to unreliable sources and incorrect information. They must be used with caution and common sense. Table 5.1 (p. 86) documents some of the differences between databases and general search engines.

Sometimes general search engines provide results from databases that are not available to the general public or that charge a fee for use. Remember that as a student at a college or university, you have free access to many of those databases if you access them through your library. For example, databases like *LexisNexis* and *JSTOR* must be accessed through a library's site because libraries pay a subscription fee to provide users with these exclusive services. In Appendix C there is a list of databases, organized by research fields, to which many university libraries subscribe. Your university librarians and course instructors can recommend the databases that are best suited to your particular research questions.

POPULAR SOURCES ONLINE

At an early stage of an investigation, it can be useful to consult sources written for

Table 5.1 Differences between Databases and Open-Access Web Sources (available through general search engines)

	Databases	Search Engines
How to Access	Usually accessed through a library. They are purchased by subscription. Most college and university libraries purchase access to a sizable number of databases (although you may need to use a university-networked computer to access them, or a password provided by the university's Information Technology department). Public libraries often offer access to some databases as well, usually through their own, on-site networked computers.	Offer free access to open-access sources on the Web. Sometimes specific sites (like newspapers or photograph repositories) will charge a fee for access to resources; often resources are free and open to the public.
Kinds of Sources Accessible	Limit the sources they collect and retrieve those relevant to particular academic or professional communities. Users expect these sources to have been published in journals or other publications relevant to a field. Often users can limit searches to peer-reviewed publications.	Not selective about the *kinds* of sources they lead to. If you search a person's name, for example, you are apt to find a broad range of material, such as the person's Web site, newspaper articles that mention the person, the person's posts to a discussion list, as well as archived publications the person has written. If you search a topic, you will draw a similar range of sources.
Arrangement of "Hits"	Usually allow the researcher some selectivity about what is chosen and how it is arranged. For example, you can search a person's name in an "author search" or a "subject search" and determine the range of time you want the search to cover. Often the researcher can select the order in which the references should be listed.	Normally list sources in the order of those most frequently accessed. Frequency of access is not usually a good indicator of the reliability of a source.
Relevance of Coverage	May be more or less general, but even a general academic index will be limited to areas normally studied by students and scholars. The more focused databases are limited to a specific disciplinary field (for example, the *Modern Language Association Bibliography*, *LexisNexis*, or *Business Source Premiere*).	Do not distinguish among fields of study or interest, unless the user limits the field with "and" or "not" commands. For example, if you want to find online writing labs, searching "OWLS" brings up sources about birds, insomniacs, and other irrelevant topics. Doing an "Advanced Search" may improve the relevance, but not necessarily the reliability, of the search.

involving your emerging topic. To find such sources, search the topic in a magazine and newspaper index like *Newspaper Search* or *Wilson Reader's Guide* or the *New York Times*. In these indexes you may find sources that lead you to discoveries and public controversies, information that can suggest the larger significance and potential applications of your inquiry.

Consulting newspapers, magazines, general or commercial Web sites, and personal Web sites or blogs that link to online articles from newspapers and magazines are also common ways to get background information. As with all sources, it is necessary to consider their reliability, particularly since these sources report breaking news, which may change from day to day, and they sometimes offer reports of research that may not be correct and complete. Even the best newspaper and magazine reporting can misinterpret the conclusions of experts. In working with sources online, as much as with print sources, it is important to distinguish between news stories, which claim to merely report on what happened; feature stories, which offer more synthesis and thus more room for interpretation; and editorial or opinion pieces, including blogs, which offer a commentator's opinion of ongoing events, often with limited documented support. In magazine journalism these distinctions are less clear, since magazines feature longer articles with more interpretation of events rather than breaking news. In general, remember that a newspaper or magazine writer is usually a professional journalist who may write on a large range of issues, whereas the author of a peer-reviewed book or journal article is an expert with advanced training in a specialized field.

Web Sites and Blogs

You should be careful about consulting personal Web pages and blogs when doing academic research, unless you are doing research on the person who owns the Web site or runs the blog. These resources can provide an introduction to a topic and links to peer-reviewed publications and news stories, but, as with every other source, you need to constantly evaluate the links you are directed to. Some personal Web pages are the pet projects of recognized experts in their field or deal with a specific issue, and if they are reliable sites, you will be directed to them by other reliable sources or by your instructor. For example, some researchers put extensive bibliographies on their areas of interest, direct links to their archived publications, or links to important resources they have collected on their Web sites.

It is impossible to ignore blogs because they have become such an important means of communication and controversy over the past five years. However, blogs raise even more difficult questions about accuracy because they are usually created specifically to convey the blogger's opinions and responses to events. Commentary on blogs often consists of immediate responses to a post rather than reliable information. Moreover, bloggers may link to sources of high or low reliability. So, while blogs can be useful sources of information, particularly background information, and can offer good examples of persuasion, in academic research they should be approached with caution, and with the question of whether your readers will find them to be authoritative sources. For example, if your class has a blog, how authoritative would you consider it to be? Is it a trustworthy source of information or a site for testing ideas, extending inquiries, and trying out conclusions? Such a blog can host very useful

Unreliable Web Sites

When writing academic papers, try to do most of your research by searching the library Web site, going to the library when necessary. Unless directed to a Web site by a reliable source (a reference librarian or instructor), leave searches of the entire Web for the very beginning of your inquiry, or for when you have time to look for "extras," not for the main body of your research. Be aware that when searching the Web, you may run into apparently reliable Web sites that are totally unreliable for various reasons, including strong bias, the intent to deceive, or a lack of specialized knowledge. An important aspect of building your expertise in a field and your ethos as a research writer is learning to identify such sites. See Chapter 2 for a review of how to evaluate reliability.

RESOURCES FOR RESEARCHERS ON THE WEB

There are some open-access Web sites that are very useful to researchers for tracking down particular details of common knowledge as well as for finding references. However, remember to use these resources with some care, as they may turn up both reliable and unreliable sources and information.

Ask.com <ask.com>: Formerly known as AskJeeves.com, the Ask.com search engine uses a specialized algorithm that considers both click and subject-specific popularity in order to produce results that represent reasonably authoritative Web sites. Users may search by subject term or by asking a question.

Bartleby.com <bartleby.com>: While the Internet is full of dictionary, quotation, and online book sites, few feature so many in one place as Bartleby.com. Bartleby features diverse reference works, including fiction, poetry, thesauri, grammar handbooks, presidential inaugural addresses, etiquette guides, and even cookbooks. Users can search for specific quotations or use the home page subject guide to search for available works.

Google Books <books.google.com/>: Often online search results will lead you to Google Books, an online project in which libraries around the world scan books into PDF format. However, be aware that only out-of-copyright texts and books for which the publisher has given permission appear as full texts. Nevertheless, Google Books is a powerful resource and frequently provides lengthy portions of texts (often including tables of contents and indexes) that researchers can use in order to evaluate a book (whether or not to purchase it or check it out from the library), get missing bibliographic information (page numbers, publisher names, and locations), or find additional sources (cited in the text or in the index).

Google Scholar <scholar.google.com/>: The Google Scholar project provides scholarly references that often appear in full-text versions. Those that do not can usually be accessed through your library website. Some general Web search results link to Google Books.

Infomine Scholarly Internet Resource Collections <infomine.ucr.edu/>: The Infomine project puts librarians from several institutions to work for you. This

and offers links to e-journals (some of which require access through your university library), articles, maps, directories, and other databases. Users choose a search field (for example, Business & Economics, Cultural Diversity, Visual & Performing Arts), then search by term.

Information Please <www.infoplease.com/>: The Information Please Web site offers information on a wide range of topics. It features encyclopedia, thesaurus, atlas, and dictionary entries, as well as news links, helpful charts, and statistics. Information Please is a good place to start if you are searching for a research topic or for ways to whittle a topic down.

Know Play? <www.kplay.cc/reference.html>: KnowPlay? is a general information site that gathers several online references on a single home page where users can select the types of works they want to reference and enter search terms to find relevant results. KnowPlay? features online dictionaries, thesauri, quotation guides, an acronym finder, atlas searches, and other resources.

LibrarySpot.com <www.libraryspot.com/>: LibrarySpot.com is another librarian-driven resource project. It provides links to help users find libraries, and it features links to reference sites and online books and magazines.

Refdesk.com <www.refdesk.com/>: Sometimes researchers simply are not aware of all of the resources available to them. The refdesk.com resource site is subtitled "Fact Checker for the Internet." Some users may find the home page a bit overwhelming, as it includes links to hundreds of pages; however, refdesk.com orders these links into easily understood categories. There are clear links to newspapers, magazines, reference works, genealogy sites, almanacs, style and writing guides, and much more.

Wikipedia <en.wikipedia.org/>: Wikipedia is a very useful research tool, but it too should be consulted with care because its wiki format allows anyone to post or edit entries (although its editors now exert some control over entries). Both the MLA and APA style guides give warnings about the reliability of this site. Students tend to consider it a great resource for general background and as a means of locating sources, but you should be aware that entries may or may not be accurate at any given time, and you should check information found here against other sources.

INDEXES AND DATABASES

Because your researched papers should reflect understanding of some of the academic research connected with your topic and because this reading can be difficult, you should start looking at peer-reviewed sources early in the research process. After a preliminary look at popular sources, a good place to move is to a general academic index like *Academic Search* or *Periodicals Index Online*. If you are not sure about what the field you are working with is called or which indexes to consult, ask your instructor and/or a reference librarian for help. On many university library Web sites, indexes can be sorted by fields, as in the list in Appendix C: Databases. This kind of help can be very useful for specialized research projects.

The databases you use most often depend on your field of study, and they may

list of resources to which your library subscribes. It is seldom necessary to use more than a few databases for a source search, since sources tend to be listed on all applicable databases, although perhaps in different ways. It is most useful to learn to use a few databases well and to understand how to access sources from them. The first page of a database indicates the scope of the resources, and the help function on each database explains the particulars of how to search with it. Some databases commonly found on the Web sites of college and university libraries appear in Appendix C.

STARTING ONLINE LIBRARY RESEARCH

Searching by Author

Searching by author can be more efficient than searching by key words. Once you find a few recent articles on the topic you are researching, use the works it references at the end of the article or in endnotes or footnotes to find those sources by author or title. Their reference lists will yield additional, potentially relevant sources. Pay particular attention to authors whose works are cited by more than one of your initial sources, since they are probably quite important (see Fig. 5.1).

Some databases provide the full texts of articles, whereas others provide only references and perhaps abstracts (see Fig. 5.2). In that case, look up the journal title in the online library catalog. Most university libraries make some journals available electronically, but others are still available only in bound volumes in the library. Some articles may be available only through interlibrary loan, which can be either electronic or paper-based.

If the database you are using does not provide the full text of an article you think you need, you might try another, more specialized database. However, as noted previously,

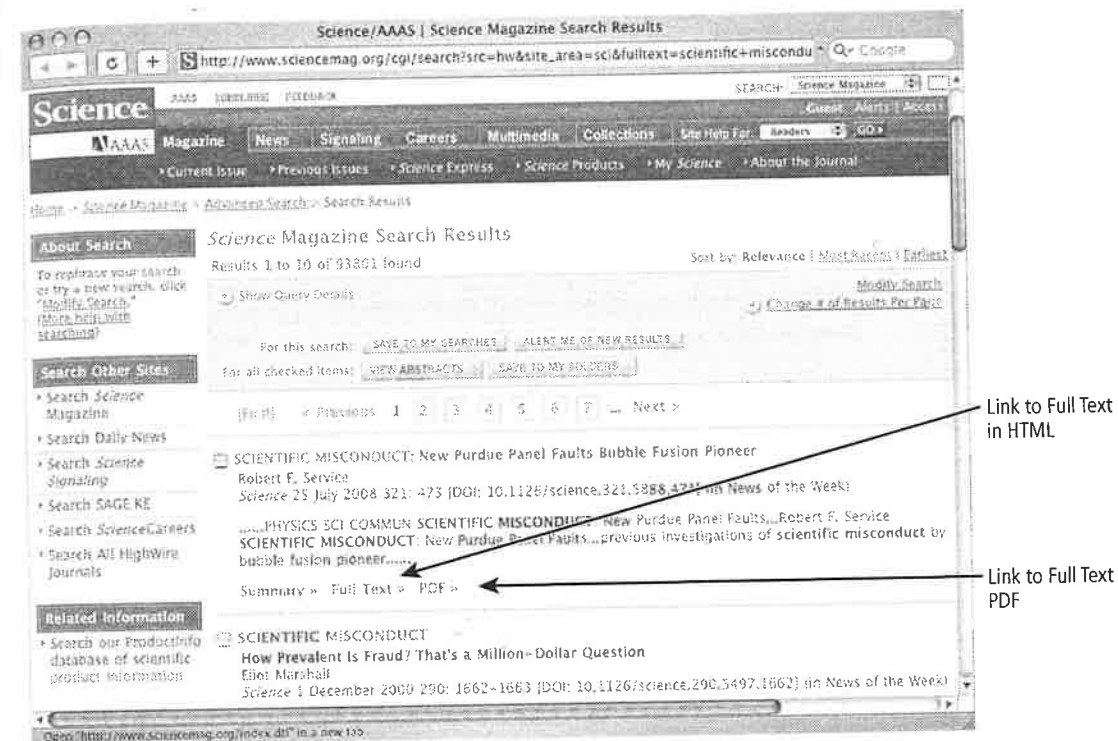Link to Full Text in HTML

Link to Full Text PDF

FIGURE 5.2 Database Search
Library databases can lead you to peer-reviewed journals and well-known publications that will offer summaries, abstracts, and often, links to full-text HTML or PDF documents.

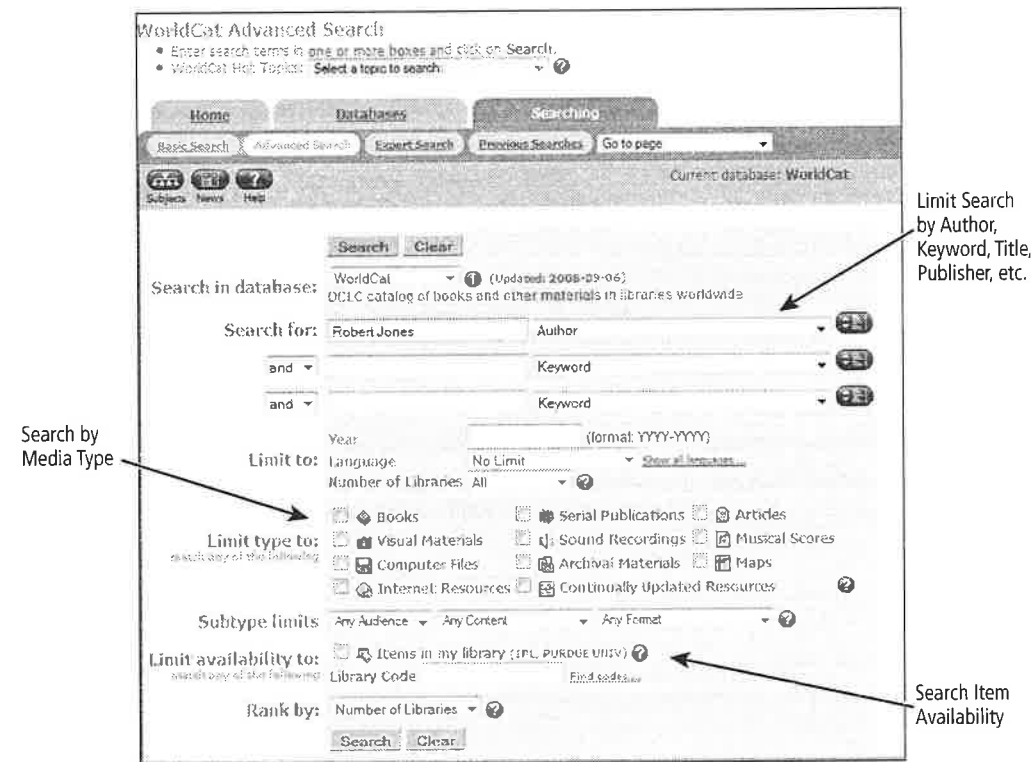*Source: Science Magazine key word search: "Plagiarism"*

very recent or very old articles in some journals may be available only in print format. In that case, look up the journal title in the online library catalog. If the library does not have the source you need, consult a reference librarian for help.

To find books, use the authors' names to search your library's catalog. If your library catalog does not list a book you need, conduct a broader search in a database like *WorldCat* (see Fig. 5.3).

A final hint: you can often e-mail references or documents to yourself and then save them in your source file until ready to use them. Some PDF documents cannot be cut and pasted, but sources put directly on the Web can often be transferred into Word after you send them to yourself, so that you can highlight and annotate them.

Searching by Key Words

If you cannot start with a source that provides references, or if you have found some initial sources but want to widen your search, use a key word search on an academic database to scan the field and browse for sources. As was noted in Chapter 4, as you gain experience reading in a field, you will be able to identify key words in a reading. If you keep a list of key words from the beginning of the inquiry, you will have a good

References

Battig, W. F., & Montague, W. E. (1969). Category norms for verbal items in 56 categories: A replication and extension of the Connecticut category norms. *Journal of Experimental Psychology Monograph, 80* (3, Pt. 2).

Brown, A. S., & Halliday, H. E. (1991). Cryptomnesia and source memory difficulties. *American Journal of Psychology, 104*, 475–490.

Brown, A. S., & Murphy, D. R. (1989). Cryptomnesia: Delineating inadvertent plagiarism. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 432–442.

Dorfman, J. (1994). Sublexical components in implicit memory for novel words. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 20*, 1108–1125.

Identify multiple sources by experts in the field.

FIGURE 5.1 Bibliographic References
You may identify the names of persons commonly associated with the field you are researching (A. S. Brown's name, for example, comes up twice), or you may use the article names to find elements of research that you are lacking.

Source: Patricia L. Tenpenny et al. "In Search of Inadvertent Plagiarism." The American Journal of Psychology

FIGURE 5.3 *WorldCat* Search

WorldCat lets you search by several criteria at once, including author, key word, title, and subject. You can also limit your results by date, the type of media, and availability.

Source: WorldCat home page

key words for Alfie Kohn's article might be: grades, "grade inflation," motivation, learning, measurement.

FOCUS POINTS: SEARCHING BY KEY WORDS

Searching for a single, common key word can call up many sources, many of which are not directly related to your topic See Figure 5.4 and the list below for ways to refine your search.

- To limit the search to a manageable number of hits, try using two key words, connected by *and*. Note also that putting quotation marks around two or more words used together, like "grade inflation," indicates that they should be treated as a single term. It takes some experience with particular databases to find key terms that yield the sources you are looking for. For example, a search on *ERIC*, an education database, for the key words "grade inflation" and "college" yields 77 citations, which can then be sorted by date; a search for "grade inflation" and "motivation" yields a more manageable 12 citations, but even some of them might not be useful
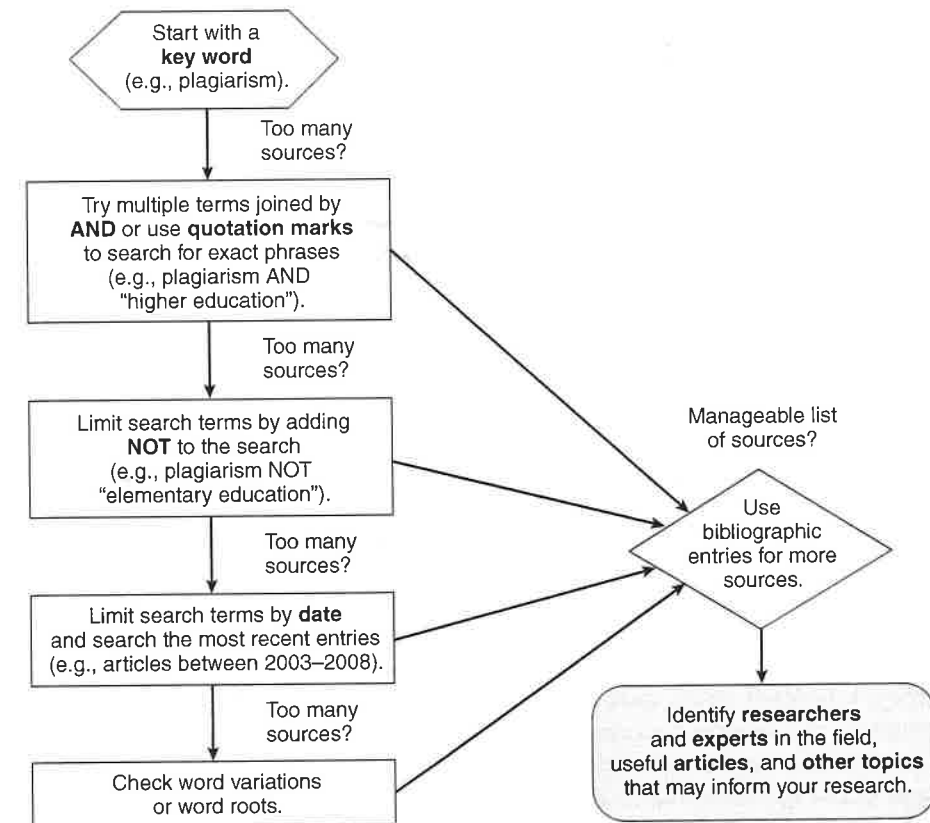
FIGURE 5.4 Flowchart for Searching by Key Words

- If a key term has more than one possible meaning, you can use "not" to limit searches to the meaning you are looking for. For example, you might use "OWL not bird" to look for information about online writing labs.

- Consult the more recent of the first sources you find, and they will lead to further sources, authors, and related key words. An author search derived from sources found through a key word search may yield particularly relevant sources.

- To find references to sources that may be listed under several variations of a word, use the root of the word. For example, "Antarctic explor" will pick up both Antarctic exploration and explorers, but will still limit the search to a single topic.

KEEPING TRACK OF SOURCES

As researchers deepen their reading about a topic, they not only gather information and ideas about the topic but also use their responses to begin constructing an argument. Because research is such a recursive process, researchers often need to reexamine sources consulted earlier in the search, so they find it useful to start a working bibliography from

style guide you are using—of all the works you have consulted, heard of, or thought about looking for. You might think of it as a "master list" of sources, a list that you can assemble for yourself, or that you can create and share with a group of fellow researchers. You can draw on the working bibliography over time to find or document sources for various papers, talks, and other projects. Instead of searching through your entire body of notes, you can consolidate brief information about sources and the information necessary for citing them in one master list. In order to avoid backtracking, start keeping track of possible sources from the beginning of a search.

CONSTRUCTING A WORKING BIBLIOGRAPHY

Remember that a working bibliography is a list of sources, both those you have consulted and those you have collected and intend to consult. A working bibliography is a way to keep your sources under control as you go along; it is work that you can either do alone or share with a group working with the same general topic of inquiry. A working bibliography with well-formatted references can be the source of references for any number of papers and projects. While references should be formatted according to the style specified by your instructors, you can add notes to yourself about things you want to remember. For example, you might indicate that you suspect a source's reliability, that some sources seem out of date, or that various sources seem to complement or contradict each other. As you work on your projects, keep adding to the bibliography, but delete items only rarely; at a later phase of a project, you might decide you want to use sources you discarded earlier, and the working bibliography makes them easy to find again.

Writing a working bibliography also entails formatting references early in the research process. Formatting references is a skill that takes considerable practice. Many instructors pay close attention to format because this kind of accuracy can be important in their own research: well-formatted citations let other researchers find sources quickly and easily, and a well-constructed and well-formatted reference list serves as a mark of professionalism that contributes significantly to the credibility—the ethos—of the work.

MLA AND APA STYLES

The sample bibliographic entries throughout this book are in MLA (Modern Language Association) style because it is most commonly used in English Departments and composition courses. Basic rules for using MLA, American Psychological Association (APA), and Chicago Manual of Style (CMS) are available in the Quick Guide to Documentation at the end of this book. You may need to consult these organizations' published manuals for more complicated citations (the *MLA Handbook for Writers of Research Papers*, 7th edition [2009]; the *Publication Manual of the American Psychological Association*, 6th edition; or *The Chicago Manual of Style*, 15th edition).

Most libraries keep these manuals in their reference collection, and most writing centers have copies available for students to consult. Some online guides to common citations in these styles are also available. If you are required to work in a style that does not seem to suit your career plans, do not be too dismayed: all styles change over time, and therefore what you need to know is not a specific format but rather how to look up

Learning to format references takes a lot of practice. It is not necessary to memorize the rules for formatting references in a particular style, although you should become familiar enough with them to know what information about sources to collect as you do library research (see Chapter 4). It *is*, however, necessary to keep a style guide at hand when formatting references and to consult it continually. If you take down the necessary information as soon as you start thinking about your inquiry, you can modify it to reflect correct MLA, APA, or other citation style when it comes time to construct a bibliography or draft a paper.

FORMATTING REFERENCES

Formatting references while constructing the working bibliography, particularly if you work with a group doing research in the same area, saves time and effort later because these references will not have to be formatted again (although you will need to recheck the formatting). When it comes time to use sources for a project, extract from the working bibliography only those references you used for that particular project. Cutting and pasting from a fully formatted bibliography is much easier and usually more accurate than trying to construct the bibliography from scratch at the last minute. Using a bibliography program like *Endnote*, if you have access to it, can be a great help with formatting. However, to use these programs effectively, the user still needs a basic understanding of what belongs where and why, and of how a particular kind of bibliography should look.

EXAMPLE 5.1: *A Working Bibliography in MLA Style for a Paper on Plagiarism*

Plagiarism Project: Working Bibliography

Boyle, James. "Who Stole the Goose?" *Campus Technology*. 1105 Media, 31 Oct. 2003. Web. 11 Nov. 2008.

Crace, John. "Higher Education: Cut and Paste job: As Plagiarism Engulfs the US and Threatens the UK, a New Advisory Service Has Been Launched To Track Down Our Own Academic Cheats." *Guardian* [London] 15 Oct. 2002: 10. Print.

Directessays.com. Direct Essays, 2003. Web. 27 May 2007.

Essayfinder.com. Paper Stores Enterprises, 2000. Web. 1 Sept. 2008.

Feldt, Brandon. "English Professors Discuss Solutions for Plagiarism." *Daily Vidette*. Illinois State University, 27 Jan. 2003. Web. 17 Nov. 2008.

Flores, Christopher. "Allegations of Plagiarism Continue to Mount against Historian." *Chronicle.com*. Chronicle of Higher Education, 1 Jan. 2002. Web. 17 November 2008.

Foster, Andrea L. "Plagiarism Tool Creates Legal Quandary." *Chronicle.com*. Chronicle of

Garinger, Alex. "Plagiarism Cases Jump During Fall." *Chronicle*. Duke University, 13 Jan.

2003. Web. 17 Nov. 2008.

Haberling, Michael. "Maintaining Academic Integrity in Online Education." *Online Journal of*

Distance Learning Administration 5.1 (2002): n. pag. 3 Dec. 2003. Web. 11 Nov. 2008.

Hotessays.com. Hot Essays, 2003. Web. 2 Sept. 2008.

Howard, Rebecca Moore. "Forget about Policing Plagiarism. Just Teach." *Chronicle.com*.

Chronicle of Higher Education, 16 Nov. 2001. Web. 17 Jan. 2008.

---. "Plagiarisms, Authorships, and the Academic Death Penalty." *College English* 57.7

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Hunt, Russell. "Four Reasons to be Happy about Internet Plagiarism." *Teaching Perspectives*

5 (2002): 1–5. Web. 19 June 2008.

Iacocca, Lee. "Internet Encourages Student Plagiarism." *Daily Bruin* [Los Angeles] 5 Nov.

2002: 1. Print.

Jerome, Richard, and Pam Grout. "Cheat Wave." *People* 17 June 2002: 82–83. Print.

Mallon, Thomas. *Stolen Words*. San Diego: Harcourt, 2001. Print.

McGrath, Charles. "Plagiarism: Everybody Into the Pool." *New York Times* 7 Jan. 2007:

C33. Print.

"Online Tool Helps Universities, Colleges Fight Plagiarism." *Community College Week* 15.12

(2003): 18. Print.

Peloso, Jennifer. *Intellectual Property*. New York: Wilson, 2003. Print.

Plotz, David. "The Plagiarist: Why Stephen Ambrose Is a Vampire." *Slate*. Washington Post

Newsweek Interactive, 11 January 2002. Web. 25 February 2008.

Randall, Marilyn. *Pragmatic Plagiarism: Authorship, Profit, and Power*. Toronto: U of Toronto

P, 2001. Print.

Rivard, Robert. "What Every Student Knows: Thou Shalt Not Copy." *San Antonio Express-*

News. Hearst, 11 Oct. 2002. Web. 12 Nov. 2008.

Robillard, Amy E. "We Won't Get Fooled Again: On the Absence of Angry Responses to

Plagiarism in Composition Studies." *College English* 70.1 (2007): 10–31. Print.

Scribner, Mary Ellen. "An Ounce of Prevention: Defeating Plagiarism in the Information

Age." *Library Media Connection* 21.5 (2003): 32–35. Print.

Silverman, Gillian. "It's a Bird, It's a Plane, It's Plagiarism Buster!" *Newsweek* 15 July 2002:

Spigelman, Candace. "The Ethics of Appropriation in Peer Writing Groups." *Perspectives on*

Plagiarism and Intellectual Property in a Postmodern World. Ed. Lise Buranen and Alice

M. Roy. Albany, NY: SUNY Press, 1999. 231–40. Print.

Straw, Deborah. "The Plagiarism of Generation 'Why Not?'" *Community College Week* 14.24

(2002): 4–6. Print.

Turnitin.com. iParadigms, 2003. Web. 31 Aug. 2008.

Exercises

5.1 FINDING THE LIBRARY

1. With a research partner, visit your campus library. You may need to consult the library's Web site first for some basic information. Take notes on the following:
   - Where is the library located?
   - Does your campus have one or two centralized libraries, or a larger number of smaller, discipline-specific locations?
   - What hours are they open?
   - Where are services for undergraduates located? If there are several libraries, make your visit to the undergraduate library.
2. Look for and collect copies of the library's informational handouts. Libraries usually distribute these handouts or brochures near the circulation desk (where you check out books) or the reference desk (where you go for help in finding material).
   - Is there a physical card catalog in the library, or has the catalog become completely electronic? If there is a card catalog, does it reference all the library's books or just materials acquired before a particular year? Where are current issues of periodicals located? Where are back issues stored?
   - Where are general reference tools, such as encyclopedias, dictionaries, almanacs, and specialized bibliographies? Where are the MLA and APA style guides located?
   - Does the reference department offer any special services for undergraduates? Are those services online or in the library? For example, many academic libraries have online tutorials, "ask a librarian" e-mail features, telephone hotlines, and other help for students working on research projects.
   - Are there other kinds of student services located in the library? Some libraries house writing centers, computer labs, rooms with high-end computer resources that students can use to experiment for incorporating sound and video in their projects, and even a coffee shop. What services does your library have for students to use?
   - Where are photocopiers available? How do you purchase a copy card?
   - Are there quiet areas of the library for independent work?
   - Are there rooms available for group work?
3. Find a print encyclopedia. **Make a photocopy of an article related to your inquiry.**
4. Browse the other reference tools near the encyclopedia. Take notes on resources you might find useful.
5. Using an author or key word search, look up a peer-reviewed book related to your topic in the library catalog, find it in the stacks, and **make a photocopy of its title page.** Look in the book's list of references, and photocopy references for at least two books and two journal articles that might be useful to you. If the author references any other kinds of sources (for

6. Write a short response to what you found in the library, ending with a list of questions you still have about finding and using its resources.

5.2 EXPLORING THE LIBRARY'S WEB SITE

Use this exercise as a means of collecting some of the references and sources needed to construct a working bibliography.

1. Observe how the library's Web site is organized—the major divisions of information, and how they are related to each other.
   - How does the Web site compare to the physical layout of the library, that is, the circulation and reference areas, and other special features of the library?
   - What help for learning research skills is available online?
2. Go to the online library catalog. There is usually a "quick search" option. Using the book references you collected in the library, search for their catalog entries first by title, then by author, until you reach the full citation. This is usually on a page by itself and includes the title, author, publication information, catalog number, and availability. Using the "browse" function, search for other books by the same author and for other books categorized by some of the same key words. **Make printouts of the full citations for at least three books you find in this way.** Choose books that seem likely to be useful sources for your proposed inquiry.
3. In the online catalog, search for the two references to journal articles you found in Exercise 5.1. Start the search by looking for the journals by title. Are they available online? Does the library have a print version? Many academic libraries are part of a state or regional system, from which you can also order books and articles. If this is the case with your college library, expand the search to the libraries in this wider system.
4. Find an encyclopedia on the library's site, preferably one specific to your field, such as the *Dictionary of Literary Biography, World Statesmen,* or *Access Science.* **Look up an aspect of your topic and make a printout of the entry.** Browse to locate other reference tools— a dictionary, almanac, etc.—available on the library's Web site.
5. Find the indexes and databases to which the library subscribes. Describe how they are categorized, and write down the names of three you think you will use most.
6. Find one of the general indexes like *Academic Search Premier* (for the humanities and social sciences).
   - Find citations for two sources in journals that may be relevant to your project, starting with references from sources you have already found. Find at least one relevant full-text journal article available through the library's indexes.
   - Using the author, subject, and key words from a source you have already found, try author, key word, and subject searches on the database to find additional sources.
   - Make printouts of at least three references to articles in periodicals.

5.3 WORKING ON THE WEB

1. Try the same author, key word, and subject searches on a general search engine like Google.com or Ask.com. While your library home page might offer access to these resources, remember that they are general Web resources that take you outside the library and onto the general World Wide Web. What are the differences in results? Does this comparison illuminate some of the advantages and disadvantages of using these search engines?
2. **Make a printout of one of the most interesting items you find relevant to your topic.** Evaluate this source using the Focus Points for evaluating reliability and relevance in

3. Find the *New York Times,* the *Washington Post,* and your local newspaper online. Search these sites by key words essential to your inquiry. Find an article relevant to your inquiry, and determine whether it is a news story, a feature story, or an opinion piece. **E-mail an article to yourself, if you can. Print it out.** What kind of costs or restrictions, if any, does the paper place on retrieving articles? If the newspaper charges for articles or searches, try to find free access to it through the library's databases. Ask a librarian or consult the library Web site's help function if necessary.

5.4 CONSTRUCTING A WORKING BIBLIOGRAPHY

1. Using the references you found in the Exercises 5.1 and 5.2 and sources you found while doing the browsing suggested in Chapter 4, start constructing a working bibliography for your inquiry. If some classmates are working on topics relevant to yours, your instructor might encourage you to pool your references. If working with a partner or small group, discard duplicate references.
2. Remember that a working bibliography is a list of *potential* sources, not a list of works you have actually read; some of them you will use, and others you will skim and reject. At the beginning of an inquiry, the working bibliography is more like a pool of references you can draw from than a reflection of work you have completed. That will come later, in the reference list you construct for each project.
3. Using the MLA or APA style guide in the Quick Guide to Documentation at the end of this book, and consulting an APA or MLA manual when necessary, format each reference until you think it is perfect. Next, as a group, review the entries for mistakes, using the following process:
   - One person should read the citation out loud, reading the punctuation as well as the information.
   - One person should find a sample citation for a similar source in the Quick Guide to Documentation.
   - Other group members should check the citation against the sample for mistakes. Consult the MLA or APA style manual when you find a citation that doesn't fit the short list of examples in the Quick Guide to Documentation in this book.
4. Arrange the list in alphabetical order by the last names of the first authors.
5. Exchange your bibliographies with another group and proofread them. Correct any mistakes your exchange group finds. Look for a pattern to the mistakes, and reread the instructions and examples that address these patterns.

5.5 USING THE LIBRARY TO FOLLOW A RESEARCH CAREER

Choose one of the writers of a peer-reviewed source that interests you, and examine his or her research career. This project will be most useful to you if you are actively thinking about this researcher's field as a career or if you are considering a project for which this writer's research is particularly pertinent to your own inquiry. Take notes on the information you find as you pursue this information and collect all reference information. Unless your instructor tells you otherwise, do not for any reason call, write, or e-mail the person you are researching to request this information. That's like asking the object of your research to do your research for you. If you uncover gossip or rumors about this person, consider whether they are found in a reliable source and whether they are relevant to your purpose, which is to write a profile of your subject as a researcher.

1. Read a peer-reviewed article by the researcher. Read the source closely, using Focus Points: Reading Arguments from Chapter 2 (p. 21).
2. Make a list of the information the source gives you about the researcher. What field is he or she in, who is he or she writing for, what reference style does the source use? Identify

3. Look the researcher up on a library index in his or her field, and make a list of the other books or articles he or she has written. Whether using APA or MLA reference format, for the time being, arrange the entries in chronological order to highlight the development of the research career.

4. Try doing a search on a Web search engine like Google. To what different kinds of sites that reflect the life and work of this researcher does this general Web search bring you? Take notes on any new information you find about the researcher.

5. Search for the researcher's professional Web site, which may be housed at his or her university. Many scholars include their *curriculum vitae* (CV) on their websites. A CV is like a resume, but much longer and more complete. If the CV is available online, what information does it give you? Sometimes scholars provide direct links from their Web sites to archived articles they have written. If your researcher has done this, take a look at those sources.

6. Use the researcher's university's search function to find other materials for the profile, such as course descriptions, syllabi, class notes, and news stories about the researcher.

7. Either write a profile of the researcher or develop materials (slides and reading notes) for an oral profile of this researcher's work.

8. Write a short reflection on what your inquiry has shown you about how this researcher's work has developed over time. Or write a short reflection on the relationship between the researcher's writing, public activities, and teaching.

CHAPTER 6

Using Sources Effectively

The abilities to find and document sources and to develop an argument about or interpretation of them have many applications in school and on the job. The genres of researched writing used in academic disciplines include the argumentative research paper (often called a term paper), the proposal, the annotated bibliography, the book review, the literature review, the personal research report (often called an "I-Search" paper, the name given to it by Ken Macrorie, an early advocate of this genre). You may be asked to a build a Web site based on library research. You may be asked to simply report on your research, or to use it as a starting point for experimentation or observation in the laboratory or on field observations. Usually oral presentations and the visuals that support them are rooted in extensive research. Research reports in the sciences (lab reports) and social sciences, although their formats differ from papers in the humanities, usually begin with a review of the previous research that led to the hypothesis currently under investigation. All these genres of researched writing involve similar strategies for finding and evaluating sources, taking notes, and using quotations, summaries, and paraphrases skillfully. However, when and how sources are used and how they are cited vary for different kinds of writing and from field to field. Thus, these general information literacy and research writing skills must be adapted to meet discipline-specific expectations for format, style, and means of presentation in specific academic fields.

SKILLS FOR ACADEMIC INQUIRY: QUOTATION, PARAPHRASE, SUMMARY, AND SYNTHESIS

There are four basic means for using sources when writing researched papers and reports: quotation, paraphrase, summary, and synthesis. These techniques help writers progress from taking notes to drafting. It is always necessary to cite sources as you use them and to consistently distinguish between your own words and ideas and those of your sources.

1. *Quotations* are exact repetitions of a writer's work. Quotations are less often used in disciplines that use APA (American Psychological Association) style than those

Exercises

7.1 REVISING

Choose the longest piece you have written about your inquiry so far, and make a revision outline from it.

1. Read it for use of key words, transitions, and connections between paragraphs.
2. Run the "find" searches for key words suggested in Focus Points: Revising for Coherence (p. 130) and Focus Points: Revising to Improve Transitions (p. 131).
3. Revise the piece using these strategies to improve its coherence.
4. Make sure you have explicitly stated the significance of the piece, and revise that statement if necessary.
5. Write a short reflection considering what you would redo or do differently if you had another week to work on the project.

7.2 EDITING

1. Reread at least four of the pieces you have written so far. Underline any sentences that seem wrong to you (either incorrect, unclear, or "unidentifiably wrong").
2. Choose one paper to reedit, and read it aloud, preferably with a partner. In each paragraph, consider where you need to work with Focus Points: Editing for Wordiness and Choppiness (p. 133), and make the necessary corrections.
3. Working with a partner or small group, or in conference with your teacher, identify the errors by name and look up solutions for the problems in any handbook.
4. Correct the errors and reread the paper.
5. Start a list with the names of at least six of your most frequent errors, so that you can edit your papers for them and look them up again when necessary.

7.3 WORKING WITH CONVENTIONS FOR DOCUMENT DESIGN

Choose one of the sources cited in your research work. Using the appropriate style manual:

1. Make a list of what seem to be the most apparent conventions in the field and a list of questions that you still have about how those conventions work.
2. Share lists with classmates working in the same general area, and compile them into a single list of observations and questions.
3. Interview a faculty member in the field about how accurate your list is, what he or she thinks makes for effective writing in the field, and what the expectations are for how a document should look (based on your list of questions).
4. Write a short account of what seem to be the most discipline-specific aspects of how documents are expected to look in this particular field.

CHAPTER **8**

Adapting Writing for Professional Audiences

Even though many instructions about writing may seem to have the authority of general rules that operate everywhere, it is more useful to think about academic writing as a body of discipline-specific "conventions," or agreed-upon practices that change over time, that vary from field to field, and that need to be applied with a healthy dose of common sense. Although effective writing in all fields depends on using strategies for accurate research, clear and professional language, and a coherent presentation of evidence, these qualities vary from field to field. Effective writing depends on thoughtfully adapting to the audience, purpose, and situation for which a document is produced. Because they are shared by researchers in the field, they can not only help to develop your sense of audience, but also to establish your ethos by demonstrating your awareness of the professional expectations of a particular field. While conventions are rarely absolute, they are useful guides to normal, everyday behavior and practice in a field, and using them successfully shows that a person has enough expertise in a field to participate in its conversations. You might think about the conventions of a field as guides to thinking, rather than replacements for it.

Many conventions are so deeply engrained in a field that they are passed along but seldom discussed. They come to seem like natural and normal aspects of good writing to experienced practitioners. Becoming a member of a discipline involves learning how people in it work, and the process of learning to work within disciplinary conventions is subtler than merely learning and following rules. While there are a few written codes that embody major elements of a field's ethics (like rules against plagiarism, falsifying data, or abusing human subjects), some conventional assumptions and procedures are expected without being directly stated. For example, when people are new to a place or an institution, they often notice some conventions and miss others—sometimes in embarrassing ways. Some conventions are institution-specific. For example, whether students call faculty "Professor," "Dr.," "Mr.," and "Ms." or by their first name depends on the conventions of the particular school—and sometimes the particular department— they are in. When the expected usages are not explicitly stated, newcomers have to rely on general goodwill and good manners—and hope for the best. But they also tend to look at how other, more experienced people behave. The same is true in writing.

EXAMPLE 8.1 *Conventions Discovered*

Many conventions of speaking and writing vary from discipline to discipline in ways that are taken for granted. In the e-mail that follows, an engineering professor describes his embarrassment when asked to speak at a national conference of English professors. His e-mail to his English Department colleagues on the panel dramatizes how he discovered the significant and potentially embarrassingly different expectations for oral presentations between the two fields—expectations that were so ingrained in each field that although they were perfectly obvious to members of one academic community, they were invisible even to good friends in the other.

E-Mail from Professor John Way (then Professor of Mechanical Engineering at the Illinois Institute of Technology) to Professor Linda Bergmann (formerly his colleague at IIT, but at that time Associate Professor of English and Director of Writing Across the Curriculum at the University of Missouri-Rolla), Dave (an English professor at IIT), and Tony (a teaching assistant).

> From: "John L. Way"
> Date: Mon, 06 Apr 1998 17:25:02 -0500
>
> Subject: Eureka!
>
> Linda, Dave, Tony—
> I'm submitting this little drama as a candidate for one more item in Linda's list of "cultural differences."
> First, however, I'd like to thank you all for the opportunity to participate in the panel. As you will see, it was most memorable for me, and I wouldn't have missed it for anything.
> **Palmer House, early (for me) Saturday morning:
> On the way up to the third floor, I worry about appearing unprofessional during my talk by referring to a piece of paper with some ordered key words on it. I pull the page out in a futile hope that I might be able to memorize the list.
> But too soon I locate Dining Room 8, walk in and there is Linda—it is so good to see her! I'm curious about the typed sheets that she places on the table. Dave arrives and then disappears. Here's Tony, and he also has some typed pages. Was I supposed to bring a typed version of my talk to submit for a conference proceedings or something? Dave reappears and we all sit down. I feel much better because Dave doesn't ... Ohmygod—he pulls out HIS typed pages!
> Here I sit with a few key words scribbled on a lined pad (albeit the fourth or fifth version). Maybe they'll take my typed version on Monday. Why didn't I check this out with Dave when he asked if I had any questions? Oh well, I wouldn't have thought to ask about this. Maybe I missed some instructions in the tons of conference material that I received. Too late now.
> Dave introduces us and Linda starts—BY READING FROM HER TYPED PAGES!
> Panic time! Part way through she begins to ad lib ...

> my comments? Dave reads his talk—I'll have to remember to glance down at my key words often, as if there's lots of stuff there. Tony reads his talk—maybe I can rip off a few blank pages and shuffle through them as I talk. Naw, the rest of the panel will notice.
> **Eisenhower Expressway:
> After a great lunch, while driving home, the phrase "read a paper" comes to mind. I have heard this phrase several times from Linda, from Dave, from the Writing Director Search Committee members. Each time I thought the phrase somewhat stilted—why don't "they" use a more descriptive phrase (as "we" do): "present a paper," or "give a presentation," or "give a talk?"
> The light bulb flashes ON somewhere around Pulaski—"they" write a PAPER and then READ it! Why didn't I catch on to this earlier? It suddenly makes a great deal of sense. "They" write for a living, and reading what "they" write is the best way to talk about it. Eureka!
> I believe that I can speak for most, if not all, engineering disciplines when I state that "reading a paper" is considered very poor style in our line of work. This method is practiced only by utterly terrified students presenting work at their first conference in front of Gods they have worshiped from afar. After all, it's hard to do anything BUT read with the thought "they're going to crucify me" constantly in mind.
> Even though there is some small place for opinion in engineering, one's arguments CAN be proved wrong. A typical question anticipated during the discussion period might be: "Are you aware that Zamboni's Third Theorem invalidates all your work?" (Chuckle from the audience.)
> A speaker's confidence and stature is perceived to be directly related to how LITTLE he/she refers to "supporting material." Come to think of it, the Propulsion group in my capstone design class (Odysseus - Manned Mission to Mars) is re-presenting their propulsion seminar to the class tomorrow precisely because they read their first presentation from typed pages (totally unacceptable—naughty, naughty—you should have known better!).
> Well, this has turned out to be more of a tome than I originally intended. However, the next time any of you mention "reading a paper" in my presence, expect a knowing smile in response instead of a questioning frown.
> John
> PS—Linda, I apologize for using up the entire panel's lifetime supply of exclamation marks in one email!

Notice that the different disciplinary conventions for presentations are not represented as better or worse—but simply as different and appropriate to the work of each discipline.

Questions

- What conventions in each field are described in the e-mail?
- Notice that both Professor Way and Professor Bergmann to some extent violated the conventions under which they were operating. (He has written down his key

- Although the writer and his readers come from very different fields, they share considerable knowledge. Identify some of that shared knowledge.
- What does this story show about how conventions affect the relation between writer (or speaker) and audience? Can you see similar misunderstanding of conventions in other experiences you have had in college? Have you experienced similar misunderstandings at school or work?

PROFESSIONAL KNOWLEDGE AND PROFESSIONAL VOICE

Professional knowledge is gained through being educated for and practicing in a profession and by learning its "common knowledge," which includes specific styles and genres of writing. Researchers and practitioners in a field

- know its conventions of thought and practice and the theories on which they are based;
- have some common grounding in the research that supports the theories;
- can recognize the names of authorities and have a working understanding of how to distinguish authoritative sources from those that are not; and
- know the conventions of behavior and communication in the profession, and usually adhere to them.

Researchers learn discipline-specific language not only from textbooks and discipline-specific reading, but also from practicing and comparing their practices with those of their peers.

Professional language and writing conventions are part of what is sometimes called "domain knowledge," since field-specific knowledge is not limited to academic fields or the professions but is also used by participants in leisure activities like video game playing or sports. For instance, as the linguist James Paul Gee argues below, it takes a considerable amount of domain knowledge to understand a sentence about basketball, at least some of which can be derived from watching and listening to the game, without necessarily playing it:

> One can know a good deal about a social practice—such as arguing before the Supreme Court, carrying out an experiment in nuclear physics, or memorializing an event in gang history through graffiti—without actually being able to participate in the social practice. But knowing about a social practice always involves recognizing various distinctive ways of acting, interacting, valuing, feeling, knowing, and using various objects and technologies that constitute the social practice.
>
> Take something so simple as the following sentence about basketball: "The guard dribbled down court, held up two fingers, and passed to the open man." You may very well know what every word in this sentence means in terms of dictionary definitions, but you cannot read the sentence with any real worthwhile understanding unless you can recognize, in some sense (perhaps only in simulations in your mind), guards, dribbling,

these things is already to know a good deal about basketball as a game, that is, as a particular sort of social practice. The same thing is equally true about any sentence or text about the law, comic books, a branch of science, or anything else for that matter.

We can go further. One's understanding of the sentence "The guard dribbled down court, held up two fingers, and passed to the open man" is different—in some sense, deeper and better—the more one knows and can recognize about the social practice (game) of basketball. For example, if you know a good bit about basketball, you may see that one possible meaning of this sentence is that the guard signaled a particular play by holding up two fingers and then passed to the player the play left momentarily unguarded.

But then this brings us to another important point. While you don't need to be able to enact a particular social practice (e.g., play basketball or argue before a court) to be able to understand texts from or about that social practice, you can potentially give deeper meanings to those texts if you can. This claim amounts to arguing that producers (people who can actually engage in a social practice) potentially make better consumers (people who can read or understand texts from or about the social practice). (15)

Most people with even a casual contact with basketball or American culture have enough common knowledge about basketball to keep from reading "dribble" as "drool" and "court" as "courtroom," but have less understanding (except in a very general way) of "open man" or "guard" than a fan who watches basketball games, listens to the commentary, and reads the sports pages. A person who actually plays will find even more meaning in the sentence.

ADAPTING LANGUAGE TO THE AUDIENCE AND OCCASION

Looking at a piece of writing as rhetorical work means considering how the writer (you or someone else) shaped the piece to its purpose, audience, and occasion. Writers who understand the purpose of and audience for a piece of writing can build their ethos—their voice of authority and reliability—by fitting their language to the expectations and professional expertise of a particular audience. When writing for an audience that doesn't know much about the field, they make connections between the common knowledge of the audience and key concepts in their field, and so they define and discuss those concepts in common language and popular culture. For example, James Paul Gee, in the previous excerpt from *What Video Games Can Teach Us about Learning and Literacy*, uses examples from sports and video games to introduce and explain important concepts in linguistics like "domain knowledge" and to introduce a linguist's definition of literacy, which includes social understanding as well as understanding individual words. On the other hand, an audience of professional peers would expect a researcher to draw from ongoing conversations in the field, use the field's more specialized terminology, and support claims with evidence generally accepted by other practitioners. Compare the excerpt from James Paul Gee's *Video Games*, addressed to an educated general public, with the following excerpt from his earlier book, *An Introduction to Discourse Analysis: Theory and Method*. This book, Gee explains in the introduction, is aimed at

people (probably scholars) who may be new to discourse analysis, and for "my colleagues in discourse studies" (8), who use discourse analysis as one of several methodologies for analyzing language:

> It is crucial to realize that to "know" a situated meaning is not merely to be able to "say certain words," e.g., "a cup of coffee," but to be able to recognize a pattern (e.g., a cup of coffee) in a variety of settings and variations. This is what makes situated meanings both contextualized and somewhat general.
>
> To see this point in another domain, one more important for education, consider again the notion of "light" in physics. First of all, our everyday cultural model for "light" is not, as we have seen, the same as the model (theory) of "light" in physics. That model is the specialized theory of electromagnetic radiation. It is more overt and articulated than most cultural models.
>
> In physics, "light" is associated with a variety of situated meanings—e.g., as a bundle of waves of different wave lengths; as particles (photons) with various special (quantum-like) properties; as a beam that can be directed in various ways and for various purposes (e.g., lasers); as colors that can mix in various fashions, and more. If one wants to start "practicing" with light, so as to learn physics, then one has to get eyes that lead to the acquisition of a few situated meanings (mid-level, contextualized patterns in one's pattern recognizer that can guide action). Otherwise, one really cannot understand what the theory of light has to explain, at least not in any way that could efficaciously guide pattern recognition and action and reflection.
>
> But I must admit now that I myself do not understand (in any embodied way) these various physically-situated meanings well enough to really have a deep understanding, despite the fact that I have read and can recite lots of the scientific theory behind light in physics. To really teach me, you would have to insure that I got experiences that allowed my mind/brain to really recognize patterns at the level of situated meanings.
>
> And what does it mean to "recognize" these? Situated meanings are correlations of various features, they are patterns that associate various features with each other, e.g., light-as-a-particle-that-behaves-in-terms-of-various-sorts-of-contrived-(experimental)-observations-in-certain-characteristic-quantum-like-ways. To recognize such things is to be able to recognize (reconstruct in terms of one's pattern-recognizing capabilities) and to be able to act-on-and-with these various features and their associations in a range of contexts. One's body and mind have to be able to be situated with (coordinated by and with) these correlated features in the world. Otherwise you have my sort of understanding. (50–51)

Because this book was written for a more specialized audience, Gee describes his research with more complexity than he anticipates would be acceptable to the more general audience. Thus, he uses the example of understanding physics, another academic domain, rather than the popular domain of basketball. In the *Video Games* book, he builds his ethos for a general audience by tempering his professional expertise with his ability to convey his ideas relatively simply, through the popular language of sports.

Introduction to Discourse Analysis, on the other hand, he builds his ethos by comparing his professional knowledge as an expert in discourse analysis with his position as a "spectator" of physics, able to comprehend and repeat some important concepts in that academic field (and even "pass a test"), but not really understanding it with the "embodied knowledge" he attributes to a physicist. In the *Video Games* book, where he is trying to introduce some of the more important conclusions of discourse analysis to the public discussion of learning and literacy, he minimizes technical jargon. In the *Introduction to Discourse Analysis*, on the other hand, Gee freely uses the technical terms of discourse analysis, like "situated meanings," "embodied recognition," and "pattern recognition," since his purpose here is to introduce students and other potential practitioners to the language and methodologies of his discipline.

AUDIENCE, PERFORMANCE, AND WRITING

Sometimes students find the concept of audience hard to apply to college writing assignments. Thinking about the following questions may help you see some specific experiences you have already had with audiences and their expectations.

1. Describe an occasion when you felt a strong sense of having an audience for something you have written or perhaps for some other thing you have done, such as participating in a musical performance, an athletic event, a presentation, a prom, or wedding. Was that audience a single person or a group of people? What did you know about their expectations, and how did that knowledge make you feel? How can an awareness of audience enhance performance? On the other hand, how does a sense of audience limit how and what you perform? How might you apply this awareness of performance to your writing?

2. How do you think the writing for the following audiences could affect the way you write?
   - an audience that needs information in order to make a crucial decision
   - an audience that is hostile to the point you are making
   - an audience that will probably agree with your point
   - an audience that has more specialized knowledge in the field than you have

3. Most students find it difficult to imagine writing for an audience with specific expectations and needs, and instead imagine a "general audience," which often boils down to no audience at all. How can you more clearly define the actual audience for which you are researching your inquiry?

VIOLATING CONVENTIONS

As noted earlier, professional conventions are often so deeply embedded in the writing process that researchers communicating to their peers do not even think about them; this was the point of Professor Way's account of his discovery of what his colleagues in English meant by "reading a paper." His concern that the audience might think he had not prepared for his presentation is a concern about the ethos he will project: will that particular audience take his conclusions seriously when he seems to be, in their terms, unprofessional? Sometimes it is easier to see disciplinary conventions when there are lapses

found himself fumbling through an encounter with unfamiliar conventions, he used the experience as an opportunity not only to laugh at himself and to share his discomfort with old friends and collaborators, but also to reflect on how disciplinary differences can take even experienced scholars by surprise. The key phrase in the anecdote concerns the "transparency" of disciplinary conventions, which we can see when Professor Way asks himself, "Why didn't I check this out with Dave when he asked if I had any questions? Oh well, I wouldn't have thought to ask about this." Moreover, he uses the informal language of friend to friends, a different language than he would use in a publication about mechanical engineering, and a different language than his colleagues would use in a rhetorical analysis.

Practiced writers in a field sometimes break some of the conventions and get away with it, particularly if their readers are apt to be familiar with their work already. For example, some academic writers use personal pronouns like "I" or "we" in professional publications in certain situations, even though most style guides say to avoid them. Likewise, sometimes writers tell personal stories and create a personal context for an academic argument, in order to expose and admit their own possible biases. However, few writers ignore *all* the conventions of their field when writing professional research, because this could call into question their expertise.

EXAMPLE 8.2 *Conventions at Work in "'Indians': Textualism, Morality, and the Problem of History"*

In the essay "'Indians': Textualism, Morality, and the Problem of History," Jane Tompkins uses personal pronouns and anecdotes, and tells the story of her research rather than directly arguing for its results—even though she is writing to a professional audience whom she wants to accept her conclusions.

> When I was growing up in New York City, my parents used to take me to an event in Inwood Park at which Indians—real American Indians dressed in feathers and blankets—could be seen and touched by children like me. This event was always a disappointment. It was more fun to imagine that you *were* an Indian in one of the caves in Inwood Park than to shake the hand of an old man in a headdress who was not overwhelmed at the opportunity of meeting you. After staring at the Indians for a while, we would take a walk in the woods where the caves were, and once I asked my mother if the remains of a fire I had seen in one of them might have been left by the original inhabitants. (101)

But in other matters, she follows the conventions expected of literary historians listed below.

1. Tompkins' review of previous historians' interpretations of the relations between Native Americans and colonists is organized chronologically, as most readers in English studies or history would expect it to be organized. Moreover, she clearly compares the ideas of the 30-year-old text to current thinking in the field:

   > My research began with Perry Miller. Early in the preface to *Errand into the Wilderness*, while explaining how he came to write his history of the New

> that what fascinated him as a young man about his country's history was "the massive narrative of the movement of European culture into the vacant wilderness of America." "Vacant"? Miller, writing in 1956, doesn't pause over the word "vacant," but to people who read his preface thirty years later, the word is shocking. In what circumstances could someone proposing to write a history of colonial New England *not* take account of the Indian presence there? (103)

She continues the chronology, pointing out that the next book starts from Miller's important (if flawed) work:

> A book entitled *New England Frontier: Puritans and Indians, 1620–1675*, written by Alden Vaughan and published in 1965, promised to rectify Miller's omission.

Again, she returns to a chronological account of how historians have changed their thinking about relationships between colonists and natives:

> Francis Jennings's *The Invasion of America* (1975) rips wide open the idea that the Puritans were humane and considerate in their dealings with the Indians. (106)

2. She uses a conventional citation system, *The Chicago Manual of Style* system using endnotes for citations, which was current when this article was first published in 1986. Since the article was published in an academic journal published by the University of Chicago Press, use of this style was probably mandated by the journal editors.

3. Like most literary critics and historians, she analyzes the images and points of view in the histories and personal accounts she examines.

4. She uses the kind of evidence—lots of well-chosen quotations from her sources—that is expected in her field. For example:

   > The fuel drums stand, in Miller's mind, for the popular misconception of what this country is about. They are "tangible symbols of [America's] appalling power," a power that everyone but Miller takes for the ultimate reality (p. ix). To Miller, "the mind of man is the basic factor in human history," and he will plead, all unaccommodated as he is among the fuel drums, for the intellect—the intellect for which his fellow historians, with their chapters on "stoves or bathtubs, or tax laws," "the Wilmot Proviso" and "the chain store," "have so little respect" (pp. viii, ix). His preface seethes with a hatred of the merely physical and mechanical, and this hatred, which is really a form of moral outrage, explains not only the contempt with which he mentions the stoves and bathtubs but also the nature of his experience in Africa and its relationship to the "massive narrative" he will write. (187)

5. She also assumes—and rightly so—that her academic audience will recognize the following allusion:

   > Knowledge of what really happened when the Europeans and the Indians first met seemed particularly important, since the result of that

which, presumably, we studied history in order to avoid repeating. If studying history couldn't put us in touch with actual events and their causes, then what was to prevent such atrocities from happening again? (186)

This is a variation of the concept first articulated in the early twentieth century by the philosopher George Santayana in *The Life of Reason:* "Those who cannot remember the past are condemned to repeat it." By following most of the common practices of her professional peers and alluding to knowledge that she can reasonably assume they have in common with her, she assures her readers (the piece was first published in a prestigious professional journal, *Critical Inquiry*) that she is an experienced practitioner in the field and leads them to understand that she is violating some conventions for rhetorical impact—to emphasize her point, not because she does not know them.

DEVELOPING YOUR PROFESSIONAL VOICE

The concept of professional voice differs from field to field. A **professional voice** is developed not only through study, but also through work experience and communication within a profession. As you move into your field of study, try to identify its specific language, practices, and conventions and try to adapt them to your own writing as a student in the field.

FOCUS POINTS: FINDING CUES TO PROFESSIONAL VOICE IN VARIOUS FIELDS

- **Look for personal/impersonal pronouns:** Writers in the sciences seldom use personal pronouns ("I") or discuss personal experiences and observations in their professional publications. They may or may not use them when making recommendations for applying results or when evaluating other researchers' work. Writers in some but not all of the humanities are more likely to use personal words and a personal tone, usually to emphasize a point or to extend an idea beyond the direct evidence.

- **Look for professional vocabulary:** Every profession has a vocabulary that may not be common outside its field. For example, newcomers to neurology must learn what terms like "neurotransmitter" or "circadian rhythm" mean, and newcomers to rhetoric must learn the meaning of terms like "ethos" and "pathos." Even more important is discovering the words that have one meaning in everyday use and a very different meaning in a specific field. For example, most scientists avoid terms like *fact* and *prove*, when writing for each other, even though most nonscientists think that facts and proof are what science is about. Similarly, "theory" has a very different meaning for scientists than it does for those outside the field, and while many nonscientists tend to consider "theory," "hypothesis," and "opinion" to be almost synonyms, scientists distinguish clearly among them. "Modern," "criticism," and "culture" have different meanings in the humanities than they do in general conversation, and using them loosely when writing for these fields suggests a lack of expertise. In the same way, everyday words have different, specific meanings in computer science, the social sciences, and many other fields. Sometimes instructors point out the special meanings of common words in their

language seems transparent to its users, and students have to pick up the meaning of words and expressions as they gain expertise in a field.

- **Jargon** is a negative term for professional vocabulary and is sometimes used to identify the inappropriate use of professional vocabulary. Writers and speakers are apt to be accused of jargon when they use a lot of undefined professional vocabulary in a piece aimed at a general audience. Jargon can leave a nonprofessional audience confused or intimidated, rather than informed. Newcomers to a field often think it to be full of jargon until they become accustomed to hearing, reading, and using its professional vocabulary, which then comes to seem a natural feature of the field. The key for the student writer is to recognize words that have definitions particular to a field, and to use them appropriately for that particular audience.

- **Professional arguments:** Notice what counts as evidence and how it is arranged in peer-reviewed articles you use in your research. The examples from James Paul Gee and Jane Tompkins above give some guidance in seeing this arrangement, as do the examples from the sciences and social sciences below.

- **Professional conventions:** Getting acquainted with a professional style (like APA or MLA) is a means of developing a professional voice. It takes considerable practice to master these styles, but knowing that they exist and where to look them up is a crucial first step.

EXAMPLE 8.3 *Conventions and Argument in Science and Social Science Writing*

The following examples demonstrate variations across the curriculum as researchers adopt discipline-specific conventions to their arguments.

Similar conventions. The following passage from Francine Patterson and Wendy Gordon's "The Case for the Personhood of Gorillas" demonstrates how many argumentative documents include claims that support a thesis, reasons that support those claims, and evidence from research that sustains those reasons.

Does this individual have a claim to basic moral rights? It is hard to imagine any reasonable argument that would deny her these rights based on the description above. She is self-aware, intelligent, emotional, communicative, has memories and purposes of her own, and is certainly able to suffer deeply. There is no reason to change our assessment of her moral status if I add one more piece of information, namely that she is not a member of the human species. The person I have described—and she is nothing less than a person to those who are acquainted with

Patterson and Gordon's principle claim is that gorillas should have the same "basic moral rights" as human beings, though at this point they do not yet identify the individual they describe as a gorilla.

The authors cite self-awareness, intelligence, emotions, and other abilities as reasons that support the claim for moral rights.

For over 25 years, Koko has been living and learning in a language environment that includes American Sign Language (ASL) and spoken English. Koko combines her working vocabulary of over 500 signs into statements averaging three to six signs in length. Her emitted vocabulary—those signs she has used correctly on one or more occasions—is about 1000. Her receptive vocabulary in English is several times that number of words.

> The authors provide **evidence** that Koko, a gorilla, has learned to communicate—one of their reasons for asserting that gorillas have claim to moral rights.

Koko is not alone in her linguistic accomplishments. Her multi-species "family" includes Michael, an 18-year-old male gorilla. Although he was not introduced to sign language until the age of three and a half, he has used over 400 different signs. Both gorillas initiate the majority of their conversations with humans and combine their vocabularies in creative and original sign utterances to describe their environment, feelings, desires, and even what may be their past histories. They also sign to themselves and to each other, using human language to supplement their own natural communicative gestures and vocalizations.

> Further **evidence** demonstrates that the ability is not confined to one unique animal.

Discipline-specific practices (Sciences). Academic fields have their own conventions for presenting research and supporting claims. While Patterson and Gordon provide evidence that the gorillas they research demonstrate an ability to use sign language, science research also demands experimental data.

Tests have shown that the gorillas understand spoken English as well as they understand sign. In one standardized test called the Assessment of Children's Language Comprehension, novel phrases corresponding to sets of pictures were given to the gorillas under conditions in which the tester did not know the correct answers. Koko's performance (see Table 1) was twice as good as might have been expected by chance, and there was no significant difference in her performance whether the instructions

> By demonstrating that gorillas can understand spoken English and signs, the authors provide **empirical evidence** for their reasons.

> In the sciences, standardized tests and experiments provide **data** that are testable and repeatable.

Table 1

Koko's Performance on the Assessment of Children's Language Comprehension Test

Percent Correct

Number of Critical Elements	Chance	Sign + Voice	Sign Only	Voice Only	Overall Percent
1 (vocabulary)	20	72	–	–	–
2	20	70	50	50	56.7
3	20	50	30	50	43.3
4	20	50	50	30	43.3

> Data are typically presented in the form of tables, graphs, and charts, which make the information easier to read and study. Data and experimentation are also critical to research in the sciences and an anticipated part of research documentation.

The results of chi-squared tests (1 degreee of freedom) indicate that Koko's performance on the ACLC in all modes and at all levels of difficulty was significantly better than chance, and that there was no significant difference in her comprehension whether the instructions were given in sign, English, or sign plus English.

> The science writer must then not only explain the implications of data but must also account for the reliability of both the data and experimental methods and explain their implications by providing **discussion** and **results**. These explanations build the writer's credibility and finally link the data and evidence back to the reasons and initial claim.

Because the gorillas understand linguistic instructions and questions, we have been able to use standardized intelligence tests to further assess their abilities. Koko's scores on different [. . .]

Discipline-specific practices (Economics). Like the sciences, the social sciences require arguments that include specific claims, reason, and evidence. However, the need for data and experimentation varies depending upon the subject matter. Documents in economics also make use of figures, graphs, and charts, when necessary, but often quotes and citations dominate the visual landscape of these documents as in the example below from Davide Gualerzi's "Globalization Reconsidered," where Gualerzi argues that current competitive international economic policy favors developed countries over developing ones.

The structural adjustment and stabilization policies of

> The **claim** that adjustment and stabilization policies have been ineffective in developing countries heads this section

large part of the developing world, most notably Africa but also Latin America (Argentina) and many of the transition economies (Milanovic 2002).

> The author qualifies the claim with specific **evidence** and builds the document's ethos by including a reference to other similar research (Milanovic 2002).

Faced with the seriousness of the problem, the IMF and the World Bank have devised a set of policies under the heading of the Heavily Indebted Poor Country Initiatives. More specifically, the PRSP [Poverty Reduction Strategy Papers] was introduced to give operational content to the CDF [Comprehensive Development Framework].[19] Accordingly, countries should submit poverty reduction strategy papers in order to qualify for debt relief. Cammack observes that PRSP used the language and the ideas of some NGOs [nongovernmental organizations] to support policies and priorities set in advance by the IMF and the World Bank, "a classic case of the manipulation of 'participation' as part of a strategy of securing hegemony" (Wilkinson and Hughes 2002: 47).

> Expository notes may point to additional **evidence** that point readers to information that may not need to be included in the text but that other researchers may find useful.

> Here the author provides **reasons** as to why adjustment and stabilization policies fail in developing countries and builds his credibility by appealing to an authority (Cammack).

The macroeconomic and financial framework is now supplemented by targeted poverty-relief programs and small-scale public sector expenditures, directed to the provision of public goods. It seems questionable that these changes can significantly affect poverty and social welfare (Pasha 2002). So, although the pro-poor rhetoric is now in fashion, there seems to be a fundamental continuity with the previous policy framework.

> The author offers further expert documentation and **evidence** for the claim's reasons.

> The author begins to conclude the point by explaining the **results** and implications of the failed policies he cites in his reasons and evidence.

The problem is a reorientation of macro policy, which seems [. . .]

DIRECTLY STATING THE SIGNIFICANCE OF AN INQUIRY

An important expectation that can be hard to recognize in your own work is connecting the significance of a particular inquiry to an ongoing conversation in the field or profession to whom you are writing or its larger significance in public life. Discussing the

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it seems natural and transparent—so conventional that it may not be mentioned. In the excerpt below, researchers Gerald Graff and Andrew Hoberek reflect on what is missing in papers that do not address the crucial questions of "So what?" or "Who cares?" Students who do not apply what they discover in their own inquiries to the larger controversies being discussed in their field of study can miss the chance to join the "conversation":

> Granted, most undergraduates won't know enough about academic conversations to initiate groundbreaking new paradigm shifts. . . . Still, in our experience, undergraduates are often more than capable of producing the kind of meta-commentary we urge, which really involves not much more than the basic rhetorical principle that what you say should have something to do with what people around you are saying. The cocktail party provides an analogy: people who walk up to a conversation, listen to what's going on to find out what the interlocutors are already talking about, and then make a contribution to this preexisting conversation generally have much more success than those who walk up, interrupt whoever is currently speaking, and launch into an unrelated discourse about whatever happens to be on their minds. (252)

> [Endnote: We echo here a comment by Kenneth Burke that has been widely quoted and endorsed by compositionists in which Burke compares intellectual history to a neverending parlor conversation that as individuals we enter and exit. See Burke, *The Philosophy of Literary Form: Studies in Symbolic Action*, rev. ed. (New York: Vintage, 1957), pp. 95–96.]

Readers in all fields expect writers to connect their work to ongoing work in the field, to specify what it adds to the conversations or arguments that matter in the discipline.

Exercises

8.1 WRITING FOR DIFFERENT AUDIENCES

1. Consider the kinds of "domain knowledge" you already have: a sport, an organization, an academic area, a kind of music, and so forth. Make a list of some of the jargon, practices, and assumptions that are part of that domain knowledge.
2. Write instructions about how to carry out a process or procedure in that domain to a specific person who has about the same level of "domain knowledge" as you have. This should be a real person. If you are working on a course project with another person or a group—such as creating a Web site to display the results of your inquiry—that would be the best choice for an audience. Otherwise, write to someone who shares some other domain knowledge with you.
3. Write a paragraph on the same topic to a person who knows little or nothing about the content knowledge that needs to go onto the Web site—again, write to a real person, not to people in general.
4. Compare the two versions: how are they different?
5. If they are not substantially different, rewrite them to take into account the different extent of knowledge possessed by the two audiences. Think carefully about what needs to be explained or defined for the "outsider," and what can be assumed to be common

6. What if your collaborator had a lot of domain or disciplinary knowledge about your topic, but knew much less than you about how to design and manage a Web site? How would this change your instructions? What might be your purpose for such a piece of writing?

8.2 READING FOR AUDIENCE

Reread Jane Tompkins' essay, "'Indians': Textualism, Morality, and the Problem of History," in the Readings; or use an academic source connected with your project. Reread either text even if you already have read it, but this time continue the analysis of adapting to a professional audience begun on pages 151–154 in this chapter by looking for the assumptions and conventions the writer is adapting to or resisting and for the ways she takes the audience into account.

1. Identify acknowledgements of audience and the writer's relation to it.
2. Mark those points where you think the writer is addressing or violating shared conventions and common knowledge.
3. Highlight cues to the author's relationship with that audience. List as many of the shared assumptions, conventions, and practices the writer uses as you can find.
4. Discuss with your group which of these assumptions and expectations you share, and which you do not. Consider how your responses have developed and changed since first encountering this piece in Chapter 1.
5. Write a response to conclude your list that reflects on the author's sense of her audience and how she shapes her work to address it.

8.3 WORKING WITH DISCIPLINARY EXPECTATIONS ABOUT ARGUMENTS

1. Take another look at one of the documents you wrote in Chapter 6. What field or discipline does it draw on most? How does the way you address your audience compare to the relation of author to audience in one of the peer-reviewed *academic* sources you cite? How does the way you address your audience compare to the relation of the author to the audience in one of the *popular* sources (i.e., magazines, newspapers) that you cite?
2. How would you describe the audience to which your document is addressed? Point out specific features in the document in which you acknowledge your relationship to your audience.
3. In what other ways could you adapt the document to the audience you are addressing? Or, is there another audience at whom it could or should be aimed? If so, describe how you would have to revise the paper to make it appropriate for that audience.

CHAPTER **9**

Writing a Personal Research Narrative

As you have seen, research can be communicated in a variety of ways, depending on the nature of the audience and the purpose of the communication. Communicating in a longer paper may seem less difficult if you think of drafting as *revision* rather than starting from scratch: revising notes, responses, and ideas into a form that will communicate how you see the results of your inquiry to the specific audience you are addressing. The genres described in this chapter and the next invite you to rework your notes and previous assignments into a larger document. Writers in many fields work in this way, so that they do not have to start from a blank screen and so that they can review what they already know about a topic. This recursive approach to writing, like the recursive approach to choosing a topic and conducting research, demands that you read your own work critically and adapt your writing not only to a specific audience, but also to how your thinking has changed over the course of a research project.

As you research a question, your thinking about the topic may change substantially from the initial questions or preliminary thesis. Instead of trying to fit the results of an inquiry into a preexisting thesis, it can be more productive to adapt the thesis to the results of the inquiry. As Richard Feynman affirmed in Chapter 1, a researcher cannot know the answer to a question before conducting the research. The summaries, syntheses, and responses of your earlier research should deepen your understanding of the topic, and this work may change your ideas about it altogether.

Genres like the proposal, annotated bibliography, or literature review provide opportunities to revise earlier notes and preliminary responses to fit your increased knowledge of a field and to take into account the particular expectations of a specific audience. Longer researched papers like the I-Search paper or the argumentative research paper provoke even more rethinking and reframing of the information you have gathered, literally "re-seeing" your work, rethinking your sense of its purpose and significance, reviewing your understanding of earlier sources in light of later readings, and deciding on the most appropriate way to communicate to your audience. Sometimes experienced researchers need to produce several versions of a project before they can state with confidence and clarity what they have to say about an issue and

what they have finally concluded. The practice of self- and peer-evaluation can be a help in this revising, not only from draft to draft, but also from genre to genre.

PLANNING A LONGER PAPER

While planning and preliminary writing are useful in drafting shorter papers, they are even more important to writing longer and more complex personal narratives and arguments. Few researchers ever feel ready to start writing, but if your inquiry has progressed reasonably well and your preliminary thesis statement has developed into an arguable claim or a clear perspective, you are ready to start planning a paper. If writing a longer and more formal paper seems daunting, consider how much you have to start with:

- a good sense of what has been written about your topic and who has taken what approaches to the issues it raises;
- a series of responses to some of the sources, and a point of view that may have changed over the process of the inquiry;
- some understanding of how your inquiry might fit into a conversation in the field you have researched;
- a collection of notes, summaries, syntheses, and responses to draw upon;
- a well-formatted list of references;
- knowledge of what sources you still need and when you expect to have access to them; and
- experience using the claims, reasons, and evidence that will go into the longer paper.

The process by which different researchers most effectively arrive at and organize an argument is largely a matter of personal style. Some writers think or talk through their ideas until they know exactly what they are going to say, while other writers discover their point only through the process of writing things down, seeing what they have written, and revising. Writers who prefer to think through what they are going to say before they start writing often write detailed and highly structured outlines; they make significant discoveries during this process of outlining, and may spend more time outlining than actually drafting the paper. On the other hand, writers who do most of their thinking as they write need a looser planning strategy. They might never get to writing a first draft if they had to start from a detailed outline—because they would never finish the outline.

Although there are many possibilities for variation and adaptation between tight and loose planning styles, most writers benefit from some kind of written, retrievable plan for writing a longer piece because when a writer is deeply engaged in drafting, it is very easy to forget earlier ideas. Moreover, even claims that seem final at the planning stage can become clearer through modifications that become apparent only as the narrative or argument takes a more finished shape. You will know what planning strategy works for you when you find the strategy that most efficiently (i.e., most quickly and painlessly) produces successful papers. The strategies in Chapters 9 and 10 are meant to help you identify an organizational style for handling your own work—the "best" organizational style being that with which you are most comfortable and which helps you

Initial Planning

You may be lucky enough to see immediately a clear pattern or organization to shape the paper from beginning to end, but more often writers have to try more than one organizational strategy. It might help to know that few writers outline papers from beginning to end. Many writers sort out main claims and reasons and then shift and arrange evidence and sources to where they seem to fit best. Like other genres of writing, both personal and argumentative research papers depend heavily on judgments by the writer.

A useful way to start planning is to quickly skim everything you have written on the topic: notes, summaries, responses, shorter papers, and self- and peer-responses. Copying pieces of work you have already done into the same file can be an effective way to help fill in a blank page, but be sure to carry references along with the pieces and to maintain clear distinctions between summaries of and responses to the sources. Also, consider how your thinking has changed in the course of the research project, and be sure that your paper reflects your final sense of the issue.

FOCUS POINTS: REVIEWING AND ORGANIZING INFORMATION

- While reviewing your previous writing and notes, *list the ideas that seem to be most important to understanding the issue*. What claims can you see yourself making? Why do you believe them? That is, what are the *reasons* for your thinking this way?
- If you have trouble identifying your reasons, try to *find them by rereading your previous work carefully*. Consider how your thinking developed—where your inquiry began and ended, and what claims marked its progress. Your short responses and syntheses can also help you see or devise convincing reasons.
- *Review the thesis statement* you have already formulated and revised in Chapter 4. Try finishing sentences like "I have reached this conclusion because. . . ." or "I am making this claim because. . . ." Make sure that "because" is followed by a reason, not a warrant or underlying assumption.
- *Use the reasons as the main divisions of the plan or outline*. Consider what seems to be the most reasonable order in which to present them. It may take several tries to identify the best shape for a narrative or argument. A few possibilities:
  - chronologically?
  - from most to least, or least to most important?
  - from local impact to wider, or vice versa?
- You might *skim your sources again*, but don't let reading distract you from writing at this point.
- It may help to *work from your list of important ideas*, cutting and pasting if you are planning on the computer, or using circles and arrows on hard copy. As you consider the order of reasons, look for major evidence to support them, and start fitting it into the list.
- *Write down the major objections* to your claims and reasons. Where and how are you going to address those objections? After the introduction and major claim? Reason

> ※ *If you have written a synthesis of sources or a history of the issue* for an earlier assignment, consider how to adapt it for the introduction.
>
> ※ *Rethink the significance of your main claim,* whether it is stated in the introduction or the conclusion—or both. Does it work for the paper as it is now taking shape? How should the significance be changed or adapted to work in the conclusion?
>
> ※ *Rearrange the parts and look for points where transitions may be needed* to show where the argument is going.

THE PERSONAL RESEARCH ("I-SEARCH") PAPER

In 1980, Ken Macrorie, a professor at Western Michigan University, published a research writing textbook called *The I-Search Paper*, which spoke of and responded to the dissatisfaction many college students and faculty felt toward traditional term paper assignments. Macrorie designed a research writing course that encouraged students to pursue their genuine interests in a heartfelt way, to extend their research from the library into the community, and to write a narrative—a story—of their research, rather than writing the typical, more formal argumentative research paper. He wanted students to experience the pleasure and pride that academic researchers experience, and he encouraged students to integrate their growing professional or domain knowledge with their personal knowledge and life experiences. Macrorie believed that the I-Search paper could—and should—replace the argumentative research paper in much undergraduate writing because it encourages students to speak with their own voice and from their own perspective.

Making this connection and experiencing this pleasure are some of the purposes for today's versions of personal research writing, which are derived from Macrorie's earlier work. Faculty have applied Macrorie's ideas in various ways: replacing the argumentative paper with an I-Search paper, assigning reflective writing at various stages of the research process, and making the I-Search paper a preliminary means for thinking through research that is then revised for an argumentative essay or formal oral presentation. However it is used, an I-Search (or personal research) paper can be a very powerful means of helping students develop and reflect upon their individual research process. Moreover, filtering research through your own experience can reveal a more personal significance for your research and its claims—an insight that can help you both to make a more meaningful and powerful argument in an assignment and to find means to use that research in other areas of your life.

Although an I-Search assignment calls for a personal narrative, like most academic writing it is written to communicate to a particular audience, not for the writer alone. Its purpose is to help you discover *and* communicate the personal and professional significance of your research to a particular audience. Although self-discovery is part of this kind of writing, the writer generally addresses an audience that cares more about what the writer has discovered and concluded than about the life story of the researcher. Therefore, instead of writing a memoir, use your personal experiences and responses to illuminate and illustrate the issue you are researching and the pattern that research has taken—much as James Paul Gee or Jane Tompkins do in their writing. Although the personal research narrative does not take the *form* of an argument,

closely, you can see the writer's ideas develop, the warrants they rely on, the reasoning that supports them, and often the development from a question or potential argument to a thesis. As in most other genres of academic writing, the conclusion of a research narrative should reflect on the significance of the inquiry and answer the "So what?" question.

Writing an Effective I-Search Paper

Look through your earlier work—notes, summaries, syntheses, and papers—reflecting on how you have modified your thinking about the issue. Think about how you moved through this process from topic to problem, argument, reasons, and evidence. This usually is a recursive process that seldom moves in a straight line, and your narrative should reflect the real process of the inquiry, not an idealized process.

Your paper should convey not only the problems you faced in understanding the topic and presenting it to an audience (false turns and all, if they demonstrate significant mistakes), but also your sense of the larger significance of what you have done. Consider how this paper might serve as groundwork for any future work. An I-Search paper can be more exploratory than argumentative, and so finding an argument may be the ending point rather than the beginning—at least of the first draft. Consider also how the professional knowledge you have gained through the inquiry impacts the common knowledge you brought to it.

Because this paper is exploratory, transitions and cues to your purpose and to your response to sources are particularly important for your readers, who need to be able to follow easily the progress of your thinking. You may need to add more cues after you have read and reviewed the first draft of the paper, as you turn your attention from reflecting on your thinking about the topic to communicating your ideas clearly to the audience.

FOCUS POINTS: KEEPING SOURCES UNDER CONTROL

Accurate and appropriate use of citations and an accurate reference list are as important in a personal research paper as in most other forms of academic writing: they show that your opinions are grounded in researched knowledge of the field.

> ※ When starting the paper, create a separate document, entitled "Works Cited" or "References," depending on the style you are using. Each time you quote, paraphrase, summarize from, or refer to a source, immediately copy the full, formatted documentation for the source from the working bibliography into this reference file. Rather than creating a list from scratch after finishing the draft, it is much easier and more reliable to have a complete list of formatted sources ready to select into a reference list, which then merely needs to be alphabetized and proofread.
>
> ※ Write your parenthetical citations (in general, authors' last names and page numbers for MLA or dates for APA) as you draft new material, as a safeguard against forgetting to reference the source later. See the Quick Guide to Documentation for more detailed instructions for in-text citations.
>
> ※ Distinguish clearly between quoted text and paraphrased text as you write, and *never move a quotation into your text without quotation marks.* Then decide whether the length of the quotation requires quotation marks (three lines) or set-off format-

▓ Be very careful to carry parenthetical citations with you when you cut and paste from earlier writing, to maintain the distinction between your voice and the voices of your sources, and to keep your point of view clear. Cutting and pasting from document to document can put these distinctions at risk, so stay sharply attuned to who is saying what.

EXAMPLE 9.1 *The I-Search Paper (Plagiarism Inquiry)*

This I-Search paper is the second of the series of projects proposed by one student in the sample proposal in Chapter 4. Notice in particular the progression of her thinking from the early rough notes (p. 69), to the proposal (p. 78), to the annotated bibliography (p. 113), and finally to the following personal research narrative.

<div align="center">Original Thought and the Antiplagiarism Movement</div>

As a sophomore in high school, I had the misfortune of transferring schools twice, tempting me to be initially unhappy with wherever I ended up. I ended up in a private Catholic college preparatory school in Indianapolis, Indiana. This school is known for its scholastic fortitude as well as its athletic prominence. Because my school was so well known for its academic aptitude and integrity, its policy concerning plagiarism was especially strict. Blatant plagiarism could result in immediate expulsion. The problem that became a major issue for me was what exactly constituted plagiarism in the first place? Unfortunately I came face to face with this issue when my sophomore English teacher approached me one day, rather upset, with the idea that I had plagiarized a paper I had written discussing the antitranscendentalist nature of Herman Melville. Knowing that I had not plagiarized this paper and rather shocked at the mere accusation, I started writing at a lower level than I was capable of. I eventually discovered that my teacher's accusations were based simply on the rather high level of vocabulary I had used in the Melville paper. Thinking back on this moment, I am at a loss to see how a high vocabulary is a means of catching a plagiarist, so I decided to research the other methods used to deter plagiarism. But first, I thought it would be more appropriate if I were to do a little background research on the current plagiarism problems that exist in colleges and universities.

I began my research by searching scholarly journals and newspaper articles for current reports on plagiarism around the nation. Apparently plagiarism has become an important issue facing the academic world due to a recent significant hike in incidents on college

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that "cheating and plagiarism are endemic within the US academic system, with an estimated 30–35% of students engaged in some form of copying or collusion" (10). I was astounded by the possibility that so many students could be plagiarizing and wondered whether American students were being taught the importance of thinking for themselves.

The idea bothered me so much that I continued to look for a reason why plagiarism had become so prevalent in today's educational world. An article by Lauren Iacocca, in *The Daily Bruin*, focuses on how the ease of finding a surplus of information on the Internet has encouraged student plagiarism (1). This idea seemed like a valid one, but I wasn't through searching so easily.

While scouring through a few scholarly journals I ran into an article written by Mary Ellen Scribner, in the *Library Media Connection*, that addresses a few more surprising questions concerning the plagiarism problem. According to Scribner, "plagiarism is not just an American problem but is both a cultural and a global issue" (32). Scribner continues to consider other possibilities that could be causing or at least contributing to the current problem. She blames bad teaching practices, such as relying on vague, outdated, and recycled assignments; accepting incorrectly structured papers; not checking sources; and a few other possibilities as reasons for the current increase in plagiarism. Scribner also discusses a study done by Professor McCabe in 2001 at Rutgers University that reported that as many as ninety percent of students who had plagiarized off of the Web had also plagiarized from print sources (Scribner 32). According to Scribner's arguments, the Internet has been a contributing factor affecting the increase in plagiarism, but not the only factor.

This widespread perception that the Internet has made the problem of plagiarism worse led me to wonder just how many Web sites offering their services and promoting plagiarism were available to students. In my search I decided to check out a few of the Web sites that are commonly used for plagiarism and found plenty of places from which a student could plagiarize a paper by buying it from an online paper mill. A few of the sites I found are *essayfinder.com, hotessays.com, and directessays.com*. A few even claim that if they don't have an essay on a topic in their database, they will write one, for a fee of course. At this point in my exploration I have come up with a slight dilemma.

There is a surplus of Web sites that encourage students to plagiarize, yet statistics

The question that I ponder is whether the Internet is really intensifying the growing problem of plagiarism, or just offering an alternative medium. Charles McGrath of the *New York Times* asserts, "No wonder young people are confused, and no wonder they continue to plagiarize in record numbers, with more than 40 percent of college students admitting to copying from the Internet in 2001" (33). Whether students are confused or the Internet makes it easier, plagiarism seems to be cheapening the value of personal thought.

At this point, I started investigating antiplagiarism programs and Web sites to see what they are doing to promote personal thought. I concluded that antiplagiarism programs like *turnitin.com* can scare students into doing the work rather than plagiarizing, but they leave little room for developing a positive sense of integrity in students, and they do little to develop independent thinking. For example, these programs can create an ethics of innocent until proven guilty, which students may translate into "I'm only guilty if I'm caught." Also, these programs can cost universities thousands of dollars to access. According to *Community College Week*, over 200,000 high schools, universities, and colleges spend around twelve thousand dollars per year to join plagiarism busters like *turnitin.com* ("Online Tool" 18). I think that the antiplagiarism programs that are available are too expensive, and although they do respond to the current alarm about plagiarism, they don't seem to be making any major dents in the rising plagiarism statistics.

I decided to research other antiplagiarism teaching techniques before drawing conclusions. According to Deborah Straw, teachers should make their assignments more clear and not assume that students are equipped well enough for test taking and writing more focused papers than in high school. She says that it is also imperative that teachers discuss the university's dishonesty policy with their students as well as the definition of plagiarism itself (5). Straw makes some very important observations. If a student isn't taught to recognize and avoid plagiarism, then how can he or she understand its significance? Looking back at the feedback regarding my proposal for this very paper, several students in my research group asked me what the actual definition of plagiarism is. One student even said that he believes it isn't plagiarism if he copies only a few lines from a source. Under what circumstances, and at what point in his education, should the student be blamed for this ignorance? I don't ever remember anyone explaining to me what is and is not plagiarism in my previous years of schooling, and so I could have easily made a

Then I turned to Rebecca Moore Howard, who seems to pick up on the responsibilities of teachers to teach students to understand plagiarism, and who seems to trust that in a good learning situation, students will do their best, original work in good faith. At this point, I am returning to my original thinking about plagiarism, that the issue is how to best develop personal responsibility and individual thinking in students. It is problematical to me that most of the pieces I've read in the popular press are devoid of pictures of decent students and teachers; they focus on combating cheating rather than building originality and integrity.

I am beginning to think that teachers have to take responsibility for teaching students about plagiarism in enough detail so that they understand clearly what it means and how to avoid it. But teachers have a difficult role in this process, too. According to Amy E. Robillard, a university composition instructor, teachers "might even find themselves defending conflicting values," wanting to support the institution on the one hand by thwarting plagiarists and students on the other by giving them a second chance, even when the university says that they should not be given one (20). Still, students need to develop a pride and confidence in their own thinking, so that to steal someone else's ideas would seem not just irresponsible, but a violation of their own minds. Students who do not or cannot take pride in their own thinking probably will not care to make clear distinctions between their own work and that of someone else.

The problem that is still bothering me is how to think about social pressures that cause plagiarism. As a society, I think we are neglecting the larger moral issues that allow plagiarism to flourish. I tend to believe that this neglect comes from problems deep within the educational system, a system in which students learn to worry more about maintaining high grade point averages than about actually learning the material. If our society taught students to think for themselves rather than chasing after higher grade point averages, plagiarism might not be so much of a problem. Could we rethink writing instruction right from the start to promote independent thinking and moral integrity—qualities that I do believe go hand in hand? On the other hand, I do not want to end up blaming all our problems on "society in general." I want to argue that teachers and students can and should start thinking differently about our responsibilities, to shift our focus from detecting and policing to develop a positive

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FOCUS POINTS: RETHINKING AND REVISING THE PERSONAL RESEARCH PAPER

As with other kinds of writing for an audience, revising the personal research paper involves further adapting it to its specific audience and purpose. When revising the personal research paper, consider how potential revisions can help you adapt the results of your inquiry to other projects. If you will be writing an additional paper or using another medium for representing your research, such as an oral presentation, a PowerPoint presentation, or a Web site, consider how you might adapt the personal narrative for those genres and audiences.

To make sure your paper is as effective as it can be, read it over from start to finish.

for your conclusions, and the larger significance you find in them. If any of these aspects is missing from your paper or is not very clear, make a note in the margin or at the end of the paper. Then, read your paper again, looking for the answers to the rest of these questions.

- Is there an argument within your personal research story? Is there an argument that becomes apparent at the end of it? Should it be clearer?
- If there is an argument, either on or beneath the surface of the narrative, consider how well it is made. What are the warrants for your claims? Are they stated, and do they need to be? Is your argument grounded in warrants a group of researchers in the field would share? Are these warrants your specific audience would share? Have they changed in the process of your inquiry?
- Do common knowledge and disciplinary knowledge conflict at any point in the narrative? How is that conflict resolved?
- What is the most serious potential objection to the conclusion you arrive at or to the reasons that support it? This could be an objection that one or more of your sources has made, or it could be an objection that you now see for yourself.
- What is your response to that objection? You do not need to abandon your approach, claims, or genuine responses to the issue, but you do need to consider how you might shape your narrative to respond to potential objections and to engage people who might see it differently than you do.
- Do you use sources that rely primarily on personal knowledge or common knowledge to make important professional points? How do you defend their credibility or overcome their limitations? Do you need to do so to be convincing?
- How clearly do you indicate your position in controversies when sources disagree? Do you use sufficient cues to show how the sources support and contradict each other and your own thinking on the topic?
- Does the narrative seem sufficiently focused on your inquiry and its results, or does the inquiry seem dominated by references to yourself? Use the "find" function of your word-processing program to search for your use of the words "I" and "me." Highlight and count them. Can any of the references to yourself be eliminated without substantially changing the meaning or violating the purpose of the paper?
- What kinds of transitions do you make? How much does the narrative depend on weak transitions that show only the passage of time rather than engaging the relationships among ideas? Can you find a better way to show the progression from idea to idea?
- Are the voices in this paper clearly recognizable? Refresh your memory about intellectual property issues by reviewing Chapter 3, and then, with a small group, repeat Exercise 6.6 in Chapter 6: Listening for Voice in a Synthesis (p. 127).

FOCUS POINTS: PEER EVALUATION OF THE PERSONAL RESEARCH PAPER

For an even more effective revision strategy, exchange drafts, accompanied by your

▓ Is the research process clear? Do you see the issue in the same way as the writer of the paper does? Do you see a coherent development to the story of the writer's thinking? Can you see a potential argument in the writer's research story?

▓ Can you raise any important objections to sources or reasoning that the writer has not already raised, in either the paper or the self-evaluation? Can you suggest an alternative response to the response the writer gave?

▓ Do the writer's claims seem warranted? What specific similarities or differences in assumptions (or warrants) do you see between yourself and the writer? Are they personal or professional differences? How do they affect your reading of the paper? Can you suggest changes the writer might make to address or overcome those differences?

▓ Can you think of a different or larger significance to the writer's work than the writer has stated in this draft? What is it?

▓ Does each use of "I" or "me" in the paper contribute to the story the writer is telling? Does the writer use the personal narrative to show what he or she has learned and how that knowledge matters? Make suggestions about where that knowledge or significance could be emphasized more, and, if relevant, how they might be adapted to a different kind of project.

FOCUS POINTS: EDITING CITATIONS AND REFERENCES

To make sure you are citing sources correctly, follow these steps.

1. Alphabetize and proofread the list of sources actually used in this paper. Give this page the appropriate title: "References" (APA) or "Works Cited" (MLA).

2. Reread the paper, checking your citations against the reference list, making sure that you have used every source that is on the list, and that a reference for each source used in the paper is on the list. Check to see that you have made clear how and why each source fits into your narrative.

3. Check your quotations against the original texts for accuracy, and check summaries and paraphrases against the original texts for possible distortions of their intended meaning. Make sure that your voice is distinct from those in your sources. If you have copied phrases of more than two words from the original, put them in quotation marks or change them into your own words. See Chapter 6 for a review of quoting, paraphrasing, and summarizing.

4. Do a "find" search for the opening parenthesis "(", and make sure that the information and punctuation in parenthetical citations are appropriate for the professional style you are using. Paste your "References" or "Works Cited" list to the end of the emerging draft of the paper.

Exercises

9.1 ANALYZING A SAMPLE PAPER

1. Read the Example 9.1 I-Search Paper (Plagiarism Inquiry), and list its use of assumptions and conventions, the kinds of knowledge it draws on, and examples of the

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2. Write a paragraph of response to these issues, giving examples of where they need to be clarified or justified.

3. Evaluate this piece of student writing using the following criteria:
   - How—and how well—does the writer use key words in transition sentences?
   - Does she provide sufficient cues to her responses to maintain a consistent point of view?
   - Does she make the significance of her research project clear?
   - How clearly does her introduction provide a context for the inquiry?
   - Has she moved you to agree with her conclusions?

9.2 REVIEWING AND REVISING RESEARCH TO START A RESEARCH NARRATIVE

1. Following the suggestions about reviewing and organizing in the Focus Points: Reviewing and Organizing Information on page 159, review your materials and experiment with different organizational strategies. Assemble a list of the materials you feel must be included in the narrative.

2. Choose an organizational structure for the narrative that takes into serious consideration your progression of understanding the material of your inquiry.

3. Write a set of questions that your paper should answer about the topic.

4. Write a short reflection about how you intend to interpret your learning experience for an audience that may not know the material. This may take the form of a paragraph or a bulleted list, depending on which format seems most appropriate to your thinking at this point.

5. Write a list of reminders of ideas and sources you do not want to forget; add a note about sources that you still hope to look at, or of sources that you would add to the project if they were more easily available to you.

9.3 WRITING A PERSONAL ACCOUNT OF YOUR RESEARCH (THE I-SEARCH PAPER)

1. Write an I-Search Paper, a personal research narrative that describes the process of your research with a focus on the way your understanding of the problem and your project developed as your research progressed. Use the Writing an Effective I-Search Paper section found on page 161 to help you tell the story of your research—what you did, and more particularly what you learned about the issue from doing it. If you are going to write an argumentative paper later, your narrative should move toward the major claims of that argument and the major reasons for supporting them. If you will be working on other kinds of projects, think about how this research narrative can help you shape them.

2. Be sure to compile from your working bibliography the list of references for sources used in this narrative.

3. Revise the narrative, using the suggestions and Focus Points in this chapter as a guide.

9.4 REVISING YOUR NARRATIVE INTO ANOTHER GENRE

1. Revise your narrative to share your research with your class as an oral presentation with visuals. Consider carefully the information about oral presentations in Appendix A and the use of visuals in Appendix B. As you adapt your written work to a speaking performance, consider how this kind of presentation changes the arrangement of your research. Consider how the personal element of this project can translate into an oral performance.

2. Create a Web site that records your research and offers links to appropriate sources

9.5 REFLECTING ON YOUR WRITING

1. Write a short reflection on what more you would like to learn from the inquiry, considering in particular what other sorts of documents it could lead to.
2. If you are assigned an argumentative research paper, consider how your approach may change with the different genre, and what materials and ideas you expect to keep.
3. If you think this inquiry is over, explain, in as much detail as possible, why it seems finished. Consider whether your response to this inquiry is evidence of its success or its failure.

CHAPTER **10**

Writing an Argumentative Research Paper

Writing a substantial argumentative research paper can be a valuable learning process, particularly if you research a topic with which you become genuinely engaged. Instead of describing your own research process, a successful argumentative paper directly joins an ongoing conversation regarding a problem about which reasonable and informed people disagree.

Writing an argumentative research paper lets you:

- use the rhetorical understanding you have developed,
- frame the research gathered in your inquiry for a particular audience,
- produce an argument that will help you experience entering the conversation of a discourse community and writing for an academic audience, and
- use conventions of a particular domain of academic research and writing.

Although each such assignment has its own requirements, the general features of this kind of paper may already be familiar to you:

- It is long enough to require a substantial inquiry.
- It makes a well-reasoned argument based on evidence from reliable sources.
- It contains an assigned number of cited sources, that is, references that are actually used in the paper, for summaries, paraphrases, or quotations. There may also be a required balance of print and online sources.
- The sources demonstrate your mastery of the research process and your growing expertise in a field; that is, they must be relevant to the argument and clearly used in relationship to it (as support for it, as alternatives to be refuted, as sources of evidence, etc.).
- The sources are cited and documented according to a specified set of scholarly conventions (normally MLA or APA).

As with other kinds of writing, the specific requirements vary from field to field and