### THE POPULAR GUIDE TO

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With the authority and clarity long associated with the name Turabian, the fourth edition of Student's Guide to Writing College Papers is both a solid introduction to the research process and a convenient handbook to the best practices of writing college research papers. Classroom tested and filled with relevant examples and tips, this is a reference that students, and their teachers, will turn to again and again.

### FEATURES OF THE NEW EDITION:

- Complete coverage of Chicago, MLA, and APA citation styles, including electronic sources
- Authoritative advice about finding useful sources, planning an argument, and writing a first draft
- · Helpful tip boxes and examples throughout
- Guidelines for the presentation of quantitative data in tables, figures, and graphs

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Fourth Edition

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Student's COLLEGE

FOURTH EDITION



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You are ready for the main thrust of your research only after you have at least a research question and a tentative guess at an answer. Better would be a story-board with an answer you trust enough to be a working hypothesis and a few supporting reasons. With that, you are prepared to look for data to back up your reasons and test your answer. In this chapter, we show you how to locate sources that will provide those data; in the next, we show you how to work with them. But don't think that those are separate steps: first you find all your sources, and then you read them and take notes. Once you find one good source, it will lead you to others. As you fill your storyboard with notes, you'll think of new questions that will send you looking for new sources. So while we discuss finding and using sources as two steps, you'll more often do them together.

Plan to do your reading in three phases. First, read just to learn enough to know what to look for. This phase won't be very systematic; for most of you, it will depend on what online search engines turn up. Second, read to get an overview of your topic and question. This reading will be mostly in reference works like encyclopedias. Third, search out the specific sources that you will use in developing your argument. For this phase, you'll need a careful plan.

### 4.1 Knowing What Kinds of Sources You Need

The first thought of beginning researchers is often not What am I looking for? but Where do I look? And what they mean is Which websites should I check? So

they fire up a search engine and get started. But that only makes sense if you believe that all you have to do is find information to fill pages—which is, of course, the wrong picture of research. It's better to think that your goal is to find just that factual information that you can use as evidence to support your reasons, which support your claim, which in turn answers a research question. If that's what you are doing, then you have to start not with the where but the what.

In fact, one of the most common complaints about new researchers is that they offer up as evidence the first (and only) bit of relevant data they find. They assume that all evidence is the same, no matter its source, and that one bit of evidence is enough. But every researcher—including students—is expected to consider not only relevant evidence, but the *best available* evidence, and in some cases *all* the available evidence. But to know what evidence you need, you must first know what counts as "available evidence"—which has two factors.

### 1. You need the appropriate kind of evidence: primary, secondary, or tertiary.

Think of the distinction in terms of how far you are from the first observation of the facts themselves. Primary sources offer firsthand evidence, reported by whoever first produced or collected the data. Secondary sources offer second-hand reports of what someone else reported in a primary source. Tertiary sources offer thirdhand reports of what others reported in secondary reports. (These aren't sharply defined categories, but they do characterize how researchers think about sources.)

In general, you are expected to get as close as you can to primary sources. Academic researchers, who have long deadlines, must use *only* primary sources unless a primary source is lost or completely unavailable. In business, where deadlines are often short, researchers are expected to use primary sources whenever they can and only the most reliable of secondary sources if they must.

### 2. You need the appropriate amount of evidence.

Academic researchers are expected to consider all the evidence that might be relevant to their claim—not just one letter in which Jefferson offers his opinion of Washington's character but *all* the available letters in which he even mentions him. Business researchers are expected to consider all the evidence that might change their claim significantly—interviews not just with one customer but with several of the most important ones.

Students, however, can't be held to the same standards as professionals. Students don't have as much time or resources for gathering data, and few students have ready access to a top-quality library. So find out your teacher's ground rules for evidence before you start. You, too, should get as close to

the primary evidence as you can, but ask what you can do when primary evidence is hard to obtain. On which matters must you use primary evidence? When can you substitute secondhand reports from secondary sources? Will a tertiary source be acceptable if its author is a respected scholar?

Remember that evidence is not inert stuff you pour into your paper. It is part of the act of explaining to readers why they should accept your claim. Plan your search to find the kind and amount of evidence you will need to convince amiable but skeptical readers.

### 4.1.1 Consult Primary Sources for Evidence

In fields such as literary studies, the arts, and history, primary sources are original works: diaries, letters, manuscripts, images, films, film scripts, recordings, musical scores, and so on. They provide data in the form of words, images, and sounds that you use as evidence to support your reasons. In these fields, your teachers will usually expect you to work with primary sources. If, for example, you were writing on Alamo stories, you'd look for documents written at the time—letters, diaries, eyewitness reports, and so on.

In fields such as economics, psychology, sociology, and so on, most researchers collect their data through observation and experiment. The primary sources are the publications that first report those data, ranging from academic journals to government and commercial databases. You can find journal articles in your library's online catalog, but don't ignore databases, which you can access through search engines like Google's "U.S. Government Search" or Wolfram Alpha. If, for example, you want to support a claim about schools with what you think is the "fact" that dropout rates are higher in city schools than in suburban ones, a quick search would yield the actual numbers, which careful readers would expect you to cite.

#### 4.1.2 Read Secondary Sources to Learn about Your Topic

Secondary sources are scholarly books and articles written by and for other researchers. They use data from primary sources as evidence to support a claim about them. A report analyzing Alamo stories, for example, would be a secondary source. Secondary sources also include specialized encyclopedias and dictionaries that offer essays written by scholars in a field. These sources are usually available only in college and university libraries.

You can use secondary sources in four ways:

### 1. To substitute for unavailable primary sources.

Secondary sources report data they found in primary sources. For example, a book on global warming will reproduce climate data from primary sources. To use those data, an advanced researcher would be required to find the pri-

mary source. If you can obtain the primary source easily, then you too should use it. If you cannot, your teacher will probably allow you to report the data from a secondary source. Be sure to ask.

#### CAUTION

#### Always Cite the Source You Consult

Some students think that when they use data reported in a secondary source they should cite the original, primary source. But they are only half right. If you cite just the primary source, you imply that you consulted that source yourself. If you cite just the secondary source, you imply that it is the ultimate source of your data. Both mislead readers. Instead, you should cite both sources. For example, if you use a secondary source written by Anderson for primary data in an article by Wong, your citation would look like this:

(Wong 1966, p. 45; quoted in Anderson 2005, p. 19)

### 2. To learn what others have written about your topic.

Secondary sources are the best way to learn what other researchers have said about your topic. By studying their arguments, you can add to your argument in two ways:

- You can learn the kinds of questions experts in the field think are important, not only from their research question but from any additional questions they mention at the end of articles. You may be able to model your question on theirs or even to use a question they mention but do not address.
- You can learn the standard views accepted by most people in the field.
   These can be useful for setting the context of your argument and for positions you can question.

### 3. To find models for your own writing and argument.

Use secondary sources to find out not just *what* others have written about your topic, but *how* they've written about it. You can then model your way of writing on theirs. If most of your sources use headings, charts, and lots of bullet points, then you might consider doing the same; if your sources never use them, you probably shouldn't. Notice things like the language (technical or ordinary?), paragraphs (long or short?), and how they use other sources (quotation or paraphrase?). Pay special attention to the kinds of evidence most of them use and the kinds of evidence they rarely or never use.

You can also use a secondary source as a model for your argument. For a paper on Alamo stories, you might find out how a source treats stories about

#### QUICK TIP

You may find secondary sources hard to read, because they are intended for advanced researchers. They assume a lot of background knowledge, and many aren't clearly written in the first place. If you're working on a topic new to you, don't start with secondary sources. Begin with an overview in a specialized encyclopedia or reliable tertiary source; then use what you learn there to tackle the secondary sources.

### 4. To find opposing points of view.

Your paper will be complete only when you imagine and respond to your readers' predictable questions and disagreements. You can find those views in secondary sources. What alternatives to your ideas do they offer? What evidence do they cite that you must acknowledge? Don't think that you weaken your case if you mention ideas contradicting your own. The truth is actually the opposite: When you acknowledge views that contradict yours, you show readers that you not only know and have considered those views but can respond to them (see 6.4).

More important, you can use those views to improve your own. You cannot understand what you think until you know why a rational person might think differently. So as you search for sources, look hard for those that support your views, but also be alert for those that contradict them.

### 4.1.3 Read Tertiary Sources for Introductory Overviews

Tertiary sources are based on secondary sources, usually written for non-specialists. These include general encyclopedias and dictionaries, as well as newspapers and magazines like *Time* and the *Atlantic Monthly* and commercial books written for a general audience. Well-edited general encyclopedias can give you a quick overview of many topics.

Be cautious about using data you find in magazine and newspaper articles and especially cautious about tertiary sources on the web. Some describe the research in secondary sources reliably, but most oversimplify or, worse, misreport it.

### Record Citation Information Fully and Accurately

Your readers will trust your report only if they trust your evidence, and they won't trust your evidence if you don't cite your sources fully, accurately, and appropriately.

We have to be candid: Citations are the most boring and nitpicky part of reporting research. It's the one task that no one enjoys. But it is nevertheless important. It helps readers understand your work by seeing whose work you have relied upon. It helps readers find your sources (just as you will use the citations in your sources to find more sources you can use). And it helps readers decide whether you are a careful researcher whose work they can trust.

So we urge you to be doggedly systematic in creating your citations; if you get the information down right the first time, you won't have to go back to do it again.

### 4.2.1 Determine Your Citation Style

4.2

Most fields require a specific citation style. You are likely to use one of the three styles that are described in part 2:

- Chicago style (also known as Turabian style), from the University of Chicago Press. This style is widely used in the humanities and qualitative social sciences.
- MLA style, from the Modern Language Association. This style is widely used in literary studies.
- APA style, from the American Psychological Association. This style is widely used in the quantitative social sciences.

If you are uncertain which style to use, consult your instructor. Before compiling your list of sources, read the general introduction to citations in chapter 17.

### 4.2.2 Record Bibliographic Data

You don't need to memorize the details of citation formats, but you do need to know what information to save. Copy this checklist or use it to create a template for recording the data as you go.

For books, record	For articles, record
□ author(s)	□ author(s)
☐ title (including subtitle)	☐ title (including subtitle)
☐ title of series (if any)	<ul> <li>title of journal, magazine, etc.</li> </ul>
dedition or volume number (if any)	<ul> <li>volume and issue number</li> </ul>
☐ city and publisher	☐ database (if any)
year published	$\square$ date published
☐ title and pages for chapter	□ pages for article
(if relevant)	<u> </u>

For some online sources, the information you need is less predictable. Record as much of the above as applies, along with anything else that might help readers locate the source. You will also need at least these:

- URL
- date posted or last modified
- date of access
- sponsoring organization

You might also record the Library of Congress call number. You won't include it in bibliographic citations, but you'll need it if you have to find the source again.

#### QUICK TIP

You'll be tempted to take shortcuts, because citations are boring and no one can remember all the rules about periods, commas, parentheses, capitalization, and on and on. But nothing labels you as an untrustworthy researcher faster than citations that are incomplete, inaccurate, or inappropriate. You may have software that automatically formats citations for you (Word includes it); if not, there are websites you can use. You enter the data, and they do the rest of the work. These are useful aids, but they cannot substitute for your own care, and not all of their software works perfectly.

### 4.3 Search for Sources Systematically

Before college, many students do all of their research on the web, because their school libraries are small and they need few sources. In college, you can do much of your research online, starting with your library's online catalog. But if you search just the Internet, you can miss important sources that you'll find only by poking around in your library.

### 4.3.1 Talk to Reference Librarians

Most college libraries offer tours and short seminars on how to search the catalog, databases, and other sources of information. If you're a new researcher, seize every opportunity to learn the online search techniques in your field.

You can also talk to librarians who specialize in the general area of your topic. They won't find sources for you, but they'll help you look for them. If you have a research question, share it:

I'm looking for data on because I want to find out	
If you have a working hypothesis and reasons, share them too:	
I'm looking for data to show <u>[your reason]</u> because I want to claim <u>[your hypothesis]</u> .	

If you've done some research but can't find the evidence you need, bring copies of what you have found and pose your question as a challenge:

I'm looking for data to show <u>[your reason]</u> because I want to claim <u>[your hypothesis]</u>. I've found A, B, and C, but they aren't what I need. Can you show me how to find something better?

Reference librarians love a challenge, and they respond well to students who see research as a hunt. Rehearse your questions to avoid wasting your time and theirs.

### 4.3.2 Skim Specialized Reference Works

Look up your topic in a specialized encyclopedia or dictionary such as the *Encyclopedia of Philosophy* or the *Concise Oxford Dictionary of Literary Terms*, where you may find an overview of your topic. You will also usually find a list of standard primary and secondary sources.

### 4.3.3 Search Your Library Catalog

Search your online catalog using keywords from your question or working hypothesis—Alamo, Texas independence, James Bowie. If you find too many titles, limit your search to those published in the last ten years. If you find too few, search a catalog service like WorldCat (if your library supports it) or go to the Library of Congress catalog at http://www.loc.gov. It has links to large university catalogs. Start early if you expect to get books from interlibrary loan.

ARTICLES. If most sources on your topic are articles, locate a recent one in your library's online databases. Its database entry will include a list of keywords. Use them to find more articles on your topic. In most cases, you can just click on them. Some databases provide abstracts of journal articles. Use these keywords to search the library catalog as well.

BOOKS. Once you find one book relevant to your topic, look it up in your library's online catalog to find its Library of Congress subject headings (at the bottom of the entry). Click on the subject headings to find other books on the same topics. Many of those sources will have more subject headings that can lead you to still more sources. It can turn into an endless trail.

#### 4.3.4 Search Guides to Periodical Literature

If you've done any research before, you probably know how to use ProQuest or a similar online database of periodical literature. You can also find print guides such as the *Readers' Guide to Periodical Literature*. Most specialized fields also have yearly guides to secondary sources, such as *Art Abstracts*, *Historical Abstracts*, and *Abstracts in Anthropology*. Most are available online or on CDs.

### 4.3.5 Follow Bibliographical Trails

Every secondary source you find will include a bibliography. If a source looks useful, scan its bibliography for promising titles. Once you locate them, scan their bibliographies. One good source can set you on a trail to all the sources you'll need.

### 4.3.6 Browse the Shelves

You might think that online research is always faster than walking around your library. It often is, but it can also be slower; and if you work only online, you may miss sources that you'll find only in the library. More important, you'll miss the benefits of serendipity—a chance encounter with a source that you find only in person.

If you can get into the stacks (where the books that you can check out are shelved), find the shelf with books on your topic. Then scan the titles on that shelf and the ones above, below, and on either side. (Then skim titles behind you; you never know.) When you spot a book with a new binding published by a university press, skim its table of contents, then its index. Then skim its bibliography for relevant titles. You can do all that faster with books on a shelf than you can online.

Now do the same for any journal articles you've found. Most volumes include a yearly table of contents; skim them for the prior ten years. Then take a quick look at the journals shelved nearby. Skim their most recent tables of contents.

If a book or article looks promising, skim its preface or introduction. Even if it doesn't seem relevant, record its call number and bibliographic data, and in a few words summarize what it seems to be about. A week later, you might realize that it's more useful than you thought.

#### QUICK TIP :

If you are new to a field, you can get a rough idea of a journal's quality by its look. If it's on glossy paper with lots of illustrations, even advertisements, it might be more journalistic than scholarly.

# 4.4 Evaluate Sources for Relevance and Reliability

You will probably find more sources than you can use. If so, skim them to evaluate their relevance and reliability.

### 4.4.1 Evaluate the Relevance of Sources

Once you decide that a source might be relevant, skim it systematically. Look for signs that it includes (1) data you can use as evidence, (2) discussions of matters you plan to discuss, (3) arguments that show you how others are thinking about your question. If your source is an article, do this:

- . Read its abstract, if any.
- Skim the last two or three paragraphs of the introduction (or other opening section). If a section is called "Conclusion," skim all of it; if not, skim the last three paragraphs.
- Skim the first paragraph or two after each subhead, if any.

If your source is a book, do this:

- Skim its index for names or keywords related to your question or its answers; then skim those pages.
- · Skim its introduction and last chapter, especially their last page or two.
- If the source is a collection of articles, skim the editor's introduction.
- Do the same for chapters that look relevant.

If your source is online, do this:

- If it looks like a printed article, evaluate it as you would a journal article.
- Skim any section labeled "Introduction," "Overview," "Summary," or the like. If there is none, look for a link labeled "About the Site" or something similar.
- If the site has a site map or index, skim it for keywords.
- If the site has a "search" resource, type in keywords.

### 4.4.2 Evaluate the Reliability of Your Sources

Your evidence will not be persuasive if it comes from a source your readers don't trust. You can't judge a source until you read it, but there are signs of reliability.

### 4.4.2.1 Library-Quality Sources

The first question is whether a source is *library quality*. For a source to be library quality, you do not have to find it in an actual library. But it does have to be provided by someone who subjects it to the same kind of screening that libraries give to their materials. Libraries are so important to researchers not just because they will lend you books and other sources, but because those materials are chosen by trained librarians who are specialists in judging their value and quality. You cannot be certain that everything in a library is a reliable source, but that is a good start.

To determine whether a source is of library quality because it has been screened by experts, look for these signs:

- It is part of a library's collection of physical books, articles, recordings, and other materials.
- It is provided as part of a library's online resources, including article databases, electronic books, electronic archives, and so on.

- It is provided by an online scholarly journal associated with a university or academic publisher.
- It is provided online by a reputable scholarly organization, such as the Rhetoric Society of America (research and other sources on rhetoric), the ARTFL Project (works by French authors), or the Pew Forum on Religion & Public Life (religion and social issues).

For advanced researchers, checking for library quality is just a first step in evaluating sources (see 4.4.2.3). But for your purposes, it is probably enough. Ask your teacher whether you have to screen library-quality sources for additional signs of reliability.

# **4.4.2.2** Evaluate the Reliability of Other Online Sources

When you search online, you will encounter hundreds of sites whose material does not appear to be of library quality. Evaluate each one carefully. The number of reliable online sources grows every day, but they are still islands in a swamp of misinformation.

Before you use online data that is not from a library-quality source, look for these signs of reliability:

- 1. The site is sponsored by a reputable organization. Some sites supported by individuals are reliable; most are not.
- 2 It is related to a reliable publisher or professional journal.
- 3. It is not an advocacy site. It is not sponsored by an organization with a political or commercial agenda, and it avoids one-sided advocacy on a contested social issue.
- 4. It does not make wild claims, attack other researchers, use abusive language, or make errors of spelling, punctuation, or grammar.
- 5. It says who is responsible for the site and when it was updated. If it has no date, be cautious.
- 6. It is not too glossy. When a site has more decorative graphics than words, its designers may care more about drawing you in than about presenting reliable information. If a site has almost no graphics, that may be a sign of neglect, but it might also indicate that its creator cares more about the quality of the words than the look of the page.

Trust a site only if careful readers would trust those who maintain it. If you don't know who maintains it, be skeptical.

# **4.4.2.3** Evaluate the Reliability of Library-Quality Sources

In most cases, beginning researchers are not expected to screen their sources as carefully as a professional must: library quality is usually enough. But when you do have to be more demanding, look for these additional signs of reliability:

- The author is a reputable scholar. Most publications cite an author's academic credentials; you can find more with a search engine.
- 2. The source is current. How quickly a source goes out-of-date varies by subject, so check with someone who knows the field. For articles in the social sciences, more than ten years pushes the limit. For books, figure fifteen or so. Publications in the humanities have a longer shelf life.
- 3. The source is published by a reputable press. You can trust most university presses, especially at well-known schools. You can trust some commercial presses in some fields, such as Norton in literature, Ablex in sciences, or West in the law. Be skeptical of a commercial book that makes sensational claims, even if its author has a PhD.
- 4. The article was peer-reviewed. Most scholarly journals, both print and online, publish an article only after it has been peer-reviewed by experts. Few popular magazines do that. If an article hasn't been peer-reviewed, use it cautiously.

Those signs don't guarantee that a source is reliable, but they should give you some confidence in it. If you can't find reliable sources, admit the limits of the ones you have.

- 5.1 Read Generously to Understand, Then Critically to Evaluate
- 5.2 Use Templates to Take Notes Systematically
- 5.3 Take Useful Notes
  - 5.3.1 Take Notes to Advance Your Thinking
  - 5.3.2 Record Relevant Context for Each Key Point
  - 5.3.3 Record Keywords That Categorize Your Notes for Sorting
  - 5.3.4 Record How You Think the Note Is Relevant to Your Argument
- 5.4 Write as You Read
- 5.5 Review Your Progress
- 5.6 How and When to Start Over
  - 5.6.1 Search Your Notes for a Better Answer
  - 5.6.2 Invent the Question
  - 5.6.3 Re-categorize and Re-sort Your Notes
- 5.7 Manage Moments of Normal Panic

Once you find a source worth a close look, don't read it mechanically, recording only what it says. Note-taking is not clerical work. You must record the words of a source accurately, but you have to go further to engage its ideas: Why does she use those words? How is this section connected to the next? Are these ideas consistent with earlier ones?

But you must take yet another step, from its words and ideas to their implications, shortcomings, and unspoken possibilities. Talk back to your source as if its writer were sitting with you, eager to hear what you have to say (imagine your readers engaging you in the same way). If you passively absorb your research and then pass it on untouched by your own ideas, your report will be no more than a summary.

# 5.1 Read Generously to Understand, Then Critically to Evaluate

If you can, read promising sources twice, first quickly to understand them on their own terms. Read as if your job was to believe everything the author says. If you disagree too quickly, you're likely to misunderstand and miss useful ideas.

Then reread slowly and critically, as if you were amiably but pointedly questioning a friend; imagine the writer's answers, then question them. You probably won't be able to engage any source that fully until you've read enough to develop a few ideas of your own. But from the outset, be alert for ways to read sources not passively, as a mere transcriber, but actively and creatively, as an engaged partner.

# Use Templates to Take Notes Systematically

5.2

There are two ways to record the information in sources: some researchers photocopy or download everything that might be useful; others do that only for very long passages and write or type out the rest.

If you just copy everything, you'll save some trouble and reduce your chance of misquoting. But many researchers find that they do not read as carefully or engage a source as fully when they rely only on copies. So if you copy or download, be sure to add to your photocopy all the other kinds of notes we recommend: keywords, summaries, responses, questions, how it supports or complicates your argument, and so on.

If you write out most of your notes, you'll force yourself to engage your sources more carefully, and you'll often get ideas while writing that would not come to you just by reading. But you'll risk mechanical errors in transcribing a quotation. So if you write out notes, create a template that helps you record information accurately, that clearly distinguishes your words from those of the source, and that encourages you to analyze and organize your notes into useful categories.

Some instructors still suggest taking notes in longhand on  $3 \times 5$  cards, as in figure 5.1. That may seem old-fashioned, but it is a template for efficient note-taking, even if you take notes on a laptop.

# Sharman, Swearing, p. 133. HISTORY/ECONOMICS (GENDER?)

CLAIM: Swearing became economic issue in 18th c.

DATA: Cites <u>Gentleman's Magazine</u>, July 1751 (no page reference) woman sentenced to ten days' hard labor because couldn't pay one-shilling fine for profanity.

"... one rigid economist entertained the notion of adding to the national resources by preaching a crusade against the opulent class of swearers."  $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left( \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left( \frac{1}{2$ 

SUPPORT: As much about class and money as about morality. Legal treatment the same as for social rather than religious transgressions.

#### COMPLICATION: --

Qs: Were men fined as often as women? Not economic earlier?

### Figure 5.1

Here is a plan for a template on your laptop (start a new page for each general idea or claim that you record from a source).

- At the top of each page, create slots for author, short title, page number.
- Make another space at the top for keywords (see upper right above). Those words let you sort and re-sort your notes by content (see 5.3.3).

- Create two boxes with labels for different kinds of notes: one for summary and paraphrase and one for exact quotations. (For more on summary, paraphrase, and quotation, see chapter 9.)
- Create a third space for your reactions, questions, and further ideas. Have a section headed "How this supports my argument" and another "How this complicates my argument." This space will encourage you to do more than simply record what you read.
- This is important: When you quote a source, record its words in a distinctive color or font so that you can recognize quotations at a glance; enclose them in large quotation marks as well. If you mistake the words of others for your own, you invite a charge of plagiarism.
- This is also important: When you paraphrase a passage, record the paraphrase in a distinctive color or font so that you cannot mistake it for a quotation or for your own ideas; enclose it in curly brackets. If you mistake the ideas of others for your own, you invite a charge of plagiarism.

Finally, *never* assume that you can use what you find online without citing its source, even if it's free and publicly available. *Nothing* releases you from the duty to acknowledge your use of *anything* you did not personally create yourself. (For more on plagiarism, see chapter 10.)

#### CAUTION

### **Quote Freely in Your Notes**

If you don't record important words now, you can't quote them later. When in doubt, copy or photocopy passages so that you'll have what you need if you decide to quote them in your paper. You should have many more quotations in your notes than in your paper.

#### 5.3 Take Useful Notes

Readers will judge your paper not just by the quality of your sources and how accurately you report them, but also by how deeply you engage them. To do that, you must take notes in a way that not only reflects but encourages a deeper understanding of your project.

### 5.3.1 Take Notes to Advance Your Thinking

Many inexperienced researchers think that note-taking is just a matter of recording data. Once they find a source, they photocopy pages or write down exactly what's on them. If that's all you do, if you don't *talk back* to your sources actively, you will simply accumulate a lot of inert information that will be equally inert in your report.

If you photocopy sources, annotate the copied pages to encourage your critical thinking. Pick out sentences that express crucial elements in its argu-

ment (its claim, major reasons, and so on). Label them in the margin. Then mark information that you might use as evidence in your report. (If you use a highlighter, use different colors to indicate these different elements.)

Summarize what you've highlighted or sketch a response to it on the back of the page, or make notes in the margin to help you interpret the highlighting. Be sure to indicate how you think the source supports or complicates your argument. The more you write about a source now, the better you will understand and remember it later.

### 5.3.2 Record Relevant Context for Each Key Point

Those who deliberately misreport sources are dishonest, but an honest researcher can mislead inadvertently if she merely records words and ignores their qualifications, complications, or role in a larger argument. To guard against misusing a source, follow these guidelines:

1. Record the context of a quotation. When you note an important conclusion, record the author's line of reasoning:

Not: Bartolli (p. 123): The war was caused . . . by Z.

But: Bartolli: The war was caused by Y and Z (p. 123), but the most important was Z (p. 123), for two reasons: First, ... (pp. 124–26); Second, ... (p. 126).

Even if you care only about a conclusion, you'll use it more accurately if you record how a writer reached it.

2. Record the scope and confidence of a statement. Don't make a claim seem more certain or far-reaching than it is. The second sentence below doesn't report the first fairly or accurately:

**Original:** One study on the perception of risk (Wilson 1988) suggests a correlation between high-stakes gambling and single-parent families.

Misleading report: Wilson (1988) says single-parent families cause high-stakes gambling.

3. Record how a source uses a statement. Is it an important claim, a minor point, a qualification or concession, and so on? Such distinctions help avoid mistakes like this:

Original by Jones: We cannot conclude that one event causes another because the second follows the first. Nor can statistical correlation prove causation. But no one who has studied the data doubts that smoking is a causal factor in lung cancer.

Misleading report: Jones claims "we cannot conclude that one event causes another because the second follows the first. Nor can statistical correlation prove causation." Therefore, statistical evidence is not a reliable indicator that smoking causes lung cancer.

### 5.3.3 Record Keywords That Categorize Your Notes for Sorting

Finally, a conceptually challenging task: as you take notes, categorize each one under two or more keywords (see the upper right corner of fig. 5.1). Don't mechanically use words from the source: categorize the note by what it implies for your question, by a general idea larger than its specific content. Use the same keywords for related notes: don't create a new one for every new note.

This step is crucial because it forces you to find the central ideas in a note. If you take notes on a computer, the keywords let you instantly group related notes with a single Find command. If you use more than one keyword, you can recombine your notes in different ways to discover new relationships (especially important when you feel you are spinning your wheels).

### 5.3.4 Record How You Think the Note Is Relevant to Your Argument

If you let your question and hypothesis guide your research, you will choose to record information not just because it is on topic, but because it is relevant to the argument you think you can make. Record that information in your notes. Say why you think a source might support or, just as importantly, complicate your argument. At this point, guesses or hunches are OK: you'll have time to reconsider later. But you can't reconsider what you cannot remember. So don't rely on your memory to reconstruct what you were thinking when you decided to make a note.

#### 5.4 Write as You Read

We've said this before (and will again): Writing forces you to think hard, so don't wait to nail down a budding idea before you write it out. Experienced researchers know that the more they write, the sooner and better they understand their project. There is good evidence that successful researchers set a fixed time to write every day—from fifteen minutes to more than an hour. They might write only a paragraph, but they write *something*, not to start a first draft of their report, but to sort out their ideas and maybe discover new ones.

If you write something that seems promising, add it to your storyboard. You will probably revise it for your final draft, maybe even discard it. But no matter how sketchy or rough this early writing might be, it will help you draft more easily later.

#### CAUTION

#### Don't Expect Too Much of Your Early Writings

If you're new to a topic, much of your early writing may be just summary and paraphrase. If you see too few of your own ideas, don't feel discouraged at your lack of original thinking. Summarizing and paraphrasing are how we all gain

control over new ideas and learn new ways of thinking. Rehashing what we want to understand is a typical, probably even necessary, stage in just about everyone's learning curve.

### 5.5 Review Your Progress

Regularly review your notes and storyboard to see where you are and where you have to go. Full storyboard pages indicate reasons with support; empty ones indicate research still to do. Is your working hypothesis still plausible? Do you have good reasons supporting it? Good evidence to support those reasons? Can you add new reasons or evidence?

### 5.6 How and When to Start Over

We have urged you to create a storyboard with a working hypothesis and a few reasons to guide your research. But some writers start with an idea so vague that it evaporates as they chase it. If that happens to you, search your notes for a generalization that might serve as a working hypothesis, then work backward to find the question it answers.

### 5.6.1 Search Your Notes for a Better Answer

Use the strategies described in 2.4 to look for questions, disagreements, or puzzles in your sources and in your reaction to them. What surprises you might surprise others. Try to state it in writing:

I expected the first mythic stories of the Alamo to originate in Texas, but they didn't. They originated in . . .

That surprise suggests a potential claim: the Alamo myth began not as a regional story adopted for national purposes but as a national story from the start. Now you have a promising start.

### 5.6.2 Invent the Question

Now comes a tricky part. It's like reverse engineering: you've found the answer to a question that you haven't yet asked, so you have to reason backward to invent the question that it answers. In this case, it might be Was the Alamo myth developed primarily to suit national needs, or was it developed for regional purposes that were then adapted to the national context? It may seem paradoxical, but experienced researchers often discover their question only after they answer it.

### 5.6.3 Re-categorize and Re-sort Your Notes

If none of that helps, try re-sorting your notes. When you first chose keywords for your notes, you identified general ideas that could organize not just your evidence but your thinking. Now re-sort your notes in different ways to

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get a new slant on your material. If your keywords no longer seem relevant, review your notes to create new keywords and reshuffle again.

### 5.7 Manage Moments of Normal Panic

This might be a good time to address a problem that afflicts even experienced researchers and at some point will probably afflict you. As you shuffle through hundreds of notes and a dozen lines of thought, you start feeling that you're not just spinning your wheels but spiraling down into a black hole of confusion, paralyzed by what seems to be an increasingly complex and unmanageable task.

The bad news is that there's no sure way to avoid such moments. The good news is that most of us have them and they pass. Yours will pass too if you keep moving along, following your plan, taking on small and manageable tasks instead of trying to get your head around the whole project. It's another reason to start early, to break a big project into its smallest steps, and to set achievable deadlines, such as a daily page quota when you draft.

# 6: Planning Your Argument

- 6.1 What a Research Argument Is and Is Not
- 6.2 Build Your Argument Around Answers to Readers' Questions
  - 6.2.1 Identify (or Invent) Target Readers Interested in Your Question
  - 6.2.2 How Arguments Grow from Questions
- 6.3 Assemble the Core of Your Argument
  - 6.3.1 Turn Your Working Hypothesis into a Claim
  - 6.3.2 Evaluate Your Claim
  - 6.3.3 Support Your Claim with Reasons and Evidence
- 6.4 Acknowledge and Respond to Readers' Points of View
  - 6.4.1 Imagining Readers' Views
  - 6.4.2 Acknowledging and Responding
- 5.5 Use Warrants if Readers Question the Relevance of Your Reasons
- 5.6 An Argument Assembled

Most of us would rather read sources than start to write a draft. But well before you've done all the research you'd like to do, you have to start thinking about the first draft of your paper. You might be ready when your storyboard is full and you're satisfied with how it looks. But you can't be certain until you start planning that first draft. Do that in two steps:

- · Sort your notes into the elements of a research argument.
- · Organize those elements into a coherent form.

In this chapter, we explain how to assemble the elements of your argument; in the next, how to organize them. As you gain experience, you'll learn to combine those two steps into one process.

### 6.1 What a Research Argument Is and Is Not

The word *argument* has bad associations these days, partly because radio and TV stage so many nasty ones. But the argument in a research paper is not the verbal combat we so often get from politicians and pundits. It doesn't try to intimidate an opponent into silence or submission. In fact, there's rarely an "opponent" at all. A research argument is like an amiable conversation in which you and your readers reason together to solve a problem. But those readers won't accept that solution until they hear a case for it: good reasons, reliable evidence that grounds those reasons, and your responses to their reasonable questions and reservations.

It is challenging enough to maintain a sense of amiable cooperation with others who do not share your views when you can talk face-to-face. But it is doubly difficult when you write, because you usually write alone. You have