6.3 File Away Leftovers

Once you have a first plan, you may discover that you have a lot of material left that doesn't fit into it. Resist the impulse to shoehorn leftovers into your report in the belief that if you found it, your readers should read it. In fact, if you don't have more leftovers than what you used, you may not have done enough research. File away leftovers for future use. They may contain the seeds of another project.

7 Drafting Your Report

Some writers think that once they have an outline or storyboard, they can draft by just grinding out sentences. If you've written a lot to explore your ideas, you may even think that you can plug that preliminary writing into a draft. Experienced writers know better. They know two things: exploratory writing is crucial but often not right for a draft, and thoughtful drafting can be an act of discovery that planning and storyboarding can prepare them for but never replace. In fact, most writers don't know what they *can* think until they see it appear in words before them. Indeed, you experience one of the most exciting moments in research when you discover yourself expressing ideas that you did not know you had until that moment.

So don't look upon drafting as merely translating a storyboard or outline into words. If you draft with an open mind, you can discover lines of thought that you couldn't have imagined before you started. But like other steps in the process, even surprises work better with a plan.

7.1 Draft in the Way That Feels Most Comfortable

Writers draft in different ways. Some are slow and careful: they have to get every paragraph right before they start the next one. To do that, they need a meticulous plan. So if you draft slowly, plan carefully. Other writers let the words flow, skipping ahead when they get stuck, omitting quotations, statistics, and so on that they can plug in later. If they are stopped by a stylistic issue such as whether to represent numbers in words or numerals, they insert a [?] and keep on writing until they run out of gas, then go back and fix it. But quick drafters need lots of time to revise. So if you draft quickly, start early. Draft in whatever way works for you, but experienced writers usually draft quickly, then revise extensively.

7.2 Develop Productive Drafting Habits

Most of us learn to write in the least efficient way—under pressure, rushing to meet a deadline, with a quick draft the night before and maybe a few minutes in the morning for proofreading. That rarely works for a short paper, almost never for a longer one. You need time and a plan that sets small, achievable goals but keeps your eye on the whole.

Most important, draft regularly and often, not in marathon sessions that dull your thinking and kill your interest. Set a small goal and a reasonable quota of words for each session, and stick to it. When you resume drafting, you need not start where you left off: review your storyboard to decide what you're ready to draft today. Review how it will fit into its section and the whole: *What reason does this section support? Where does it fit in the overall logic? Which key terms state the concepts that distinguish this section?* If you're blocked, skip to another section. Whatever you do, don't substitute more reading for writing. Chronic procrastinators are usually so intimidated by the size of their project that it paralyzes them, and they just keep putting off getting started. You can overcome that destructive habit by breaking your project into small, achievable goals (see 7.11).

7.3 Use Your Key Terms to Keep Yourself on Track

As you draft, keep in front of you a separate list of the key terms for your general concepts that should run through your whole report. From time to time, check how often you've used those words, both those that run through the whole report and those that distinguish one section from another. But don't let those words stifle fresh thinking. If you find yourself wandering, let yourself go for a while. You may be developing an interesting idea. Follow it until you see where it takes you.

7.4 Quote, Paraphrase, and Summarize Appropriately

We covered this issue when we discussed note-taking (4.2.2). You should build most of your report out of your own words that reflect your own thinking. Much of the support for that thinking will be in quotations, paraphrases, and summaries. Different fields, however, use them in different proportions. In general, researchers in the humanities quote most often; social and natural scientists typically paraphrase and summarize. But you must decide each case for itself, depending on how you use the information in your argument. Here are some principles:

- Summarize when details are irrelevant or a source isn't important enough to warrant more space.
- Paraphrase when you can state what a source says more clearly or concisely than the source, or when your argument depends on the details of a source but not on its specific words. (Before you paraphrase, however, read 7.9.)
- Quote for these purposes:
  - The exact wording constitutes evidence that backs up your reasons.
  - A passage states a view that you disagree with, and to be fair you want to state it exactly.
  - The quoted words are from an authority who backs up your view.
  - The quoted words are strikingly original.
  - The quoted words express your key concepts so compellingly that the quotation can frame the rest of your discussion.

You must balance quotations, paraphrases, and summaries with your own fresh ideas. Do not merely repeat, or worse, download, words and ideas of others and stitch them together with a few sentences of your own. All teachers have ground their teeth over such reports, dismayed by their lack of original thinking. In an advanced project such as a thesis or dissertation, readers reject a patchwork of borrowings out of hand.

Readers value research only to the degree that they trust its sources. So for every summary, paraphrase, or quotation you use, cite its bibliographic data in the appropriate citation style (see part 2).

7.5 Integrate Quotations into Your Text

You can insert quotations into your text in two ways:

- Run four or fewer quoted lines into your running text.
- Set off five or more lines as an indented block.

You can integrate both run-in and block quotations into your text in two ways:

1. Drop in the quotation as an independent sentence or passage, introduced with a few explanatory words. But avoid introducing all of your questions with just a *says, states, claims*, and so on:

> Diamond says, "The histories of the Fertile Crescent and China . . . hold a salutary lesson for the modern world: circumstances change, and past primacy is no guarantee of future primacy" (417).

Instead, provide some interpretation:

> Diamond suggests that one lesson we can learn from the past is not to expect history to repeat itself. "The histories of the Fertile Crescent and China . . . hold a salutary lesson for the modern world" (417).

2. Weave the grammar of the quotation into the grammar of your sentence:

> Political leaders should learn from history, but Diamond points out that the "lesson for the modern world" in the history of the Fertile Crescent and China is that "circumstances change, and past primacy is no guarantee of future primacy" (417). So one lesson from history is that you can't count on it to repeat itself.

To make a quoted sentence mesh with yours, you can modify the quotation, so long as you don't change its meaning and you clearly indicate added or changed words with square brackets and deletions with three dots (called *ellipses*). This sentence quotes the original intact:

> Posner focuses on religion not for its spirituality but for its social functions: "A notable feature of American society is religious pluralism, and we should consider how this relates to the efficacy of governance by social norms in view of the historical importance of religion as both a source and enforcer of such norms" (299).

This version modifies the quotation to fit the grammar of the writer's sentence:

> In his discussion of religious pluralism, Posner says of American society that "a notable feature . . . is [its] religious pluralism." We should consider how its social norms affect "the efficacy of governance . . . in view of the historical importance of religion as both a source and enforcer of such norms" (299).

(See chapter 25 for more on integrating quotations with your text.)

When you refer to a source the first time, use his or her full name. Do not precede it with *Mr., Mrs., Ms.*, or *Professor* (see 24.2.2 for the use of *Dr., Reverend, Senator*, and so on). When you mention a source thereafter, use just the last name:

> According to Steven Pinker, "claims about a language instinct . . . have virtually nothing to do with possible genetic differences between people."[1] Pinker goes on to claim that . . .

Except when referring to kings, queens, and popes, never refer to a source by his or her first name. Never this:

> According to Steven Pinker, "claims about a language instinct . . ." Steven goes on to claim that . . .

7.6 Use Footnotes and Endnotes Judiciously

If you are using bibliography-style citations (see 3.2.1), you will have to decide as you draft how to use footnotes and endnotes (for their formal requirements, see chapter 16). You must cite every source in a note, of course, but you may also decide to use footnotes and endnotes for substantive material that you don't want to include in the body of your text but also don't want to omit. (You might also use such substantive notes in combination with parenthetical citations in author-date style; see 18.3.3.)

- If you cite sources in endnotes, put substantive material in footnotes. Otherwise you force readers to keep flipping to the back of your report to check every endnote to see whether it is substantive or bibliographical.
- Use substantive footnotes sparingly. If you create too many, you risk making your pages look choppy and broken up.

In any event, keep in mind that many readers ignore substantive footnotes on the principle that information not important enough for you to include in the text is not important enough for them to read in a footnote.

7.7 Interpret Complex or Detailed Evidence Before You Offer It

By this point you may be so sure that your evidence supports your reasons that you'll think readers can't miss its relevance. But evidence never speaks for itself, especially not a long quotation, an image, a table, or a chart. You must speak for it by introducing it with a sentence stating what you want your readers to get out of it.

For example, it's hard to see how the quoted lines in this next passage support the introductory sentence:

> When Hamlet comes up behind his stepfather Claudius at prayer, he coolly and logically thinks about whether to kill him on the spot.claim

> Now might I do it [kill him] pat, now he is praying:
> And now I'll do't; and so he goes to heaven;
> And so am I reveng'd . . .
> [But this] villain kills my father; and for that,
> I, his sole son, do this same villain send to heaven.
> Why, this is hire and salary, not revenge.evidence

Nothing in those lines obviously refers to cool rationality. Compare this:

When Hamlet comes up behind his stepfather Claudius at prayer, he coolly and logically thinks about whether to kill him on the spot.claim First he wants to kill Claudius immediately, but then he pauses to think: If he kills Claudius while he is praying, he sends his soul to heaven. But he wants Claudius damned to hell, so he coolly decides to kill him later:reason

> Now might I do it [kill him] pat, now he is praying:
> And now I'll do't; and so he goes to heaven;
> And so am I reveng'd . . .
> [But this] villain kills my father; and for that,
> I, his sole son, do this same villain send to heaven.
> Why, this is hire and salary, not revenge.evidence

That kind of explanatory introduction is even more important when you present quantitative evidence in a table or figure (see 8.3.1).

7.8 Be Open to Surprises

If you write as you go and plan your best case before you draft, you're unlikely to be utterly surprised by how your draft develops. Even so, be open to new directions from beginning to end:

- When your drafting starts to head off on a tangent, go with it for a bit to see whether you're on to something better than you planned.
- When reporting your evidence leads you to doubt a reason, don't ignore that feeling. Follow it up.
- When the order of your reasons starts to feel awkward, experiment with new ones, even if you thought you were almost done.
- Even when you reach your final conclusion, you may think of a way to restate your claim more clearly and pointedly.

If you get helpful new ideas early enough before your deadline, invest the time to make the changes. It is a small price for a big improvement.

7.9 Guard against Inadvertent Plagiarism

It will be as you draft that you risk making one of the worst mistakes a researcher can make: leading readers to think that you're trying to pass

off the work of another writer as your own. Do that and you risk being accused of plagiarism, a charge that, if sustained, could mean a failing grade or even expulsion.

Many instructors warn against plagiarism but don't explain it, because they think it is always an act of deliberate dishonesty that needs no explanation. And to be sure, students know they cheat when they put their name on a paper bought online or copied from a fraternity or sorority file. Most also know they cheat when they pass off as their own page after page copied from a source or downloaded from the Internet. For those cases, there's nothing to say beyond *Don't*.

But many students fail to realize that they risk being charged with plagiarism even if they were not intentionally dishonest but only ignorant or careless. You run that risk when you give readers reason to think that you've done one or more of the following:

- You cited a source but used its exact words without putting them in quotation marks or in a block quotation.
- You paraphrased a source and cited it, but in words so similar to those of your source that they are almost a quotation: anyone could see that you were following the source word for word as you paraphrased it.
- You used ideas or methods from a source but failed to cite it.

7.9.1 Signal Every Quotation, Even When You Cite Its Source

Even if you cite your source, readers must know which words are yours and which you quote. You risk the charge of plagiarism if you fail to use quotation marks or a block quotation to signal that you have copied *as little as a single line of words*.

It gets complicated, however, when you copy just a few words. Read this:

> Because technology begets more technology, the importance of an invention's diffusion potentially exceeds the importance of the original invention. Technology's history exemplifies what is termed an autocatalytic process: that is, one that speeds up at a rate that increases with time, because the process catalyzes itself (Diamond 1998, 301).

If you were writing about Jared Diamond's ideas, you would probably have to use some of his words, such as *the importance of an invention*. But you wouldn't put that phrase in quotation marks, because it shows no originality of thought or expression. Two of his phrases, however, are so striking that they do require quotation marks: *technology begets more technology* and *autocatalytic process*. For example,

> The power of technology goes beyond individual inventions because technology "begets more technology." It is, as Diamond puts it, an "autocatalytic process" (301).

Once you cite those words, you can use them again without quotation marks or citation:

> As one invention begets another one and that one still another, the process becomes a self-sustaining catalysis that spreads exponentially across all national boundaries.

This is a gray area: words that seem striking to some readers are commonplace to others. If you use quotation marks for too many common phrases, readers might think you're naive or insecure, but if you fail to use them when readers think you should, they may suspect you're trying to take credit for language and ideas not your own. Since it's better to seem naive than dishonest, especially early in your research career, use quotation marks freely. (You must, however, follow the standard practices of your field. For example, lawyers often use the exact language of a statute or judicial opinion with no quotation marks.)

7.9.2 Don't Paraphrase Too Closely

You paraphrase appropriately when you represent an idea in your own words more clearly or pointedly than the source does. But readers will think that you cross the line from fair paraphrase to plagiarism if they can match your words and phrasing with those of your source. For example, these next sentences plagiarize the two sentences you just read:

> Booth, Colomb, and Williams claim that appropriate paraphrase is the use of one's own words to represent an idea to make a passage from a source clearer or more pointed. Readers can accuse a student of plagiarism, however, if his paraphrase is so similar to its source that someone can match words and phrases in the sentence with those in that source.

This next paraphrase borders on plagiarism:

> Appropriate paraphrase rewrites a passage from a source into one's own words to make it clearer or more pointed. Readers think plagiarism occurs when a source is paraphrased so closely that they see parallels between words and phrases (Booth, Colomb, and Williams 2013).

This paraphrase does not plagiarize:

> According to Booth, Colomb, and Williams (2013), paraphrase is the use of your own words to represent the ideas of another more clearly. It becomes plagiarism when readers see a word-for-word similarity between a paraphrase and a source.

To avoid seeming to plagiarize by paraphrase, don't read your source as you paraphrase it. Read the passage, look away, think about it for a moment; then, *still looking away*, paraphrase it in your own words. Then check whether you can run your finger along your sentence and find

the same ideas in the same order in your source. If you can, so can your readers. Try again.

7.9.3 Usually Cite a Source for Ideas Not Your Own

This rule is more complicated than it seems, because most of our own ideas are based on or derived from identifiable sources somewhere in history. Readers don't expect you to find every distant source for every familiar idea, but they do expect you to cite the source for an idea when (1) the idea is associated with a specific person *and* (2) it's new enough not to be part of a field's common knowledge.

For example, psychologists claim that we think and feel in different parts of our brains. But no reader would expect you to cite that idea, because it's no longer associated with a specific source and it's so familiar that no one would think you implied that it was yours. On the other hand, some psychologists argue that emotions are crucial to rational decision making. That idea is so new and so closely tied to particular researchers that you'd have to cite them.

The principle is this: cite a source for an idea not your own whenever an informed reader might think you're implying that it is your own. Though that seems black and white, it has a big gray area in the middle. When in doubt, check with your instructor.

7.9.4 Don't Plead Ignorance, Misunderstanding, or Innocent Intentions

To be sure, what looks like plagiarism is often just honest ignorance of how to use and cite sources. Some students may have gone to school in parts of the world in which very different expectations govern using other writers' work. Other students sincerely believe that they don't have to cite material they have downloaded from the Internet if that material is free and publicly available. But they're wrong. The fact that it's public or free is irrelevant. You must cite *anything* you use that was created by someone else.

Many students defend themselves by claiming they didn't *intend* to mislead. The problem is, we read words, not minds. So think of plagiarism not as an *intended* act but as a *perceived* one. Avoid any sign that might give your readers any reason to suspect you of it. Whenever you submit a paper with your name on it, you implicitly promise that its research, reasoning, and wording are yours—unless you specifically attribute to someone else.

Here is the best way to think about this: If the person whose work you used read your report, would she recognize any of it as hers, including

paraphrases and summaries, or even general ideas or methods from her original work? If so, you must cite those borrowings.

7.10 Guard against Inappropriate Assistance

Experienced writers regularly show their drafts to others for criticism and suggestions, and you should too. But instructors differ on how much help is appropriate and what help students should acknowledge. When you get help, ask two questions:

1. How much help is appropriate?
   - For a class paper, most instructors encourage students to get general criticism and minor editing, but not detailed rewriting or substantive suggestions.
   - For a thesis, dissertation, or work submitted for publication, writers get all the help they can from teachers, reviewers, and others so long as they don't become virtual ghostwriters.

   Between those extremes is a gray area. Ask your instructor where she draws the line, then get all the help you can on the right side of it.

2. What help must you acknowledge in your report?
   - For a class paper, you usually aren't required to acknowledge general criticism, minor editing, or help from a school writing tutor, but you must acknowledge help that's special or extensive. Your instructor sets the rules, so ask.
   - For a thesis, dissertation, or published work, you're not required to acknowledge routine help, though it's courteous and often politic to do so in a preface (see A.2.1.8 and A.2.1.9). But you must acknowledge special or extensive editing and cite in a note major ideas or phrases provided by others.

7.11 Work Through Chronic Procrastination and Writer's Block

If you can't seem to get started on a first draft or if you struggle to draft more than a few words, you may have writer's block. Some cases arise from serious anxieties about school and its pressures; if that might be you, see a counselor. But most cases have causes you can address:

- You may be stuck because you have no goals or have goals that are too high. If so, create a routine and set small, achievable goals. Do not be reluctant to use devices to keep yourself moving, such as a progress chart or regular meetings with a writing partner.

- You may feel so intimidated by the size of the task that you don't know where to begin. If so, follow our suggestions about dividing the process into small, achievable tasks; then focus on doing one small step at a time. Don't dwell on the whole task until you've completed several small parts.
- You may feel that you have to make every sentence or paragraph perfect before you move on to the next one. If so, tell yourself you're not writing a draft but only sketching out some ideas; then grit your teeth and do some quick and dirty writing to get yourself started. Next time you can avoid some of this obsession with perfection if you write along the way as you research, reminding yourself that you aren't writing a first draft. And in any event, we all have to compromise on perfection to get the job done.

If you have problems like these with most of your writing projects, go to the student learning center. There are people there who have worked with every kind of procrastinator and blocked writer and can give you advice tailored to your problem.

On the other hand, some cases of writer's block may really be opportunities to let your ideas simmer in your subconscious while they combine and recombine into something new and surprising. If you're stuck but have time (another reason to start early), do something else for a day or two. Then return to the task to see if you can get back on track.

13 Presenting Research in Alternative Forums

You may be too early in your career to think about publishing your work, but you'll probably share some of it as an *oral presentation* to your class. Working up a talk is easier than preparing a written report, but doing it well still requires a plan and some practice. In fact, the ability to stand up and talk about your work clearly and cogently is a skill that you'll find crucial in any career you pursue. If you're working on a PhD dissertation, you probably expect to submit your work for publication eventually, but you should look for opportunities to present it as a talk before you send it off to a professional journal.

In this chapter, we show you how to use your plan for your written text to prepare a talk. We also discuss a hybrid form of presentation called a *poster*, which combines elements of writing and speech. Finally, we discuss how to prepare a conference proposal so that you'll get an invitation to give a talk.

13.1 Plan Your Oral Presentation

Talks have some advantages over writing. You get immediate feedback during the question-and-answer period afterward, responses that may

be less severely critical than they would be to your written work, especially if you frame your presentation as only auditioning new ideas or testing new data. But to profit from those responses, you must plan a talk just as carefully as you would a written report.

13.1.1 Narrow Your Focus

You will probably have only about twenty minutes for your talk. (If you are reading, which is rarely a good idea, that means no more than seven to ten double-spaced pages.) So you must boil down your work to its essence or focus on just part of it. Here are three common options:

- Problem statement with a sketch of your argument. If your problem is new, focus on its originality. Start with a short introduction: *Brief literature review + Question + Consequences of not knowing an answer + Claim* (review 9.2); then explain your reasons, summarizing your evidence for each.
- Summary of a subargument. If your argument is too big, focus on a key subargument. Mention your larger problem in your introduction and conclusion, but be clear that you're addressing only part of it.
- Methodology or data report. If you offer a new methodology or source of data, explain why it matters. Start with a brief problem statement, then focus on how your new methods or data solve it.

13.1.2 Understand the Difference between Listeners and Readers

Speakers have endless ways to torment their listeners. Some robotically recite memorized sentences or hunch over pages reading every word, rarely making eye contact with their audience. Others ramble through slides of data with no more structure than *And now this slide shows . . .* Such presenters think passive listeners are like active readers or engaged conversationalists. They are not.

- When we read, we can pause to reflect and puzzle over difficult passages. To keep track of organization, we can look at subheads, even paragraph indentations. If our mind wanders, we reread.
- When we converse, we can pose questions as we think of them and ask the other person to clarify a line of reasoning or just to repeat it.

But as listeners in an audience we can do none of those things. We must be motivated to pay attention, and we need help to follow a complicated line of thought. And if we lose its thread, we may drift off into our own thoughts. So when speaking, you have to be explicit about your purpose and your organization, and if you're reading a paper, you have to make your sentence structure far simpler than in a written report.

So favor shorter sentences with consistent subjects (see 11.1.2). Use "I," "we," and "you" a lot. What seems clumsily repetitive to readers is usually welcomed by listeners.

13.2 Design Your Presentation to Be Listened To

To hold your listeners' attention, you must seem to be not lecturing *at* them but rather amiably conversing *with* them, a skill that does not come easily, because few of us can write as we speak and because most of us need notes to keep us on track. If you must read, read no faster than about two minutes a page (at about three hundred words a page). Time yourself reading more slowly than you ordinarily speak. The top of your head is probably not your most attractive feature, so build in moments when you deliberately look straight out at your audience, especially when you're saying something important. Do that at least once or twice a page.

Far better is to talk from notes, but to do that well you need to prepare them well.

13.2.1 Sketch Your Introduction

For a twenty-minute talk, you get one shot at motivating your audience before they tune out, so prepare your introduction more carefully than any other part of your talk. Base it on the four-part problem statement described in section 10.1, plus a road map. (The times in parentheses in the list below are rough estimates.)

Use your notes only to remind yourself of the four parts, not as a word-for-word script. If you can't remember the content, you're not ready to give a talk. Sketch enough in your notes to *remind* yourself of the following:

1. the research that you extend, modify, or correct (no more than a minute)
2. a statement of your research question—the gap in knowledge or understanding that you address (thirty seconds or less)
3. an answer to *So what?* (thirty seconds)

Those three steps are crucial in motivating your listeners. If your question is new or controversial, give it more time. If your listeners know its significance, mention it quickly and go on.

4. Your claim, the answer to your research question (thirty seconds or less)

Listeners need to know your answer up front even more than readers do, so state at least its gist, unless you have a compelling reason to wait for the end. If you do wait, at least forecast your answer.

5. A forecast of the structure of your presentation (ten to twenty seconds). The most useful forecast is an oral table of contents: "First I will discuss . . ." That can seem clumsy in print, but listeners need more help than readers do. Repeat that structure as you work through the body of your talk.

Rehearse your introduction, not only to get it right but also to be able to look your audience in the eye as you give it. You can look down at notes later.

All told, spend no more than three minutes or so on your introduction.

13.2.2 Design Notes for the Body of Your Talk So That You Can Understand Them at a Glance

Do not write your notes as complete sentences (much less paragraphs) that you read aloud; notes should help you see at a glance only the structure of your talk and cue what to say at crucial points. So do not cut and paste sentences from a written text; create your notes from scratch.

Use a separate page for each main point. On each page, write out your main point not as a topic but as a claims, either in a shortened form or (only if you must) in complete sentences. Above it, you might add an explicit transition as the oral equivalent of a subhead: "The first issue is . . ."

Visually highlight those main points so that you recognize them instantly. Under them, list as *topics* the evidence that supports them. If your evidence consists of numbers or quotations, you'll probably have to write them out. Otherwise, know your evidence well enough to be able to talk about it directly to your audience.

Organize your points so that you cover the most important ones first. If you run long (most of us do), you can skip a later section or even jump to your conclusion without losing anything crucial to your argument. Never build up to a climax that you might not reach. If you must skip something, use the question-and-answer period to return to it.

13.2.3 Model Your Conclusion on Your Introduction

Make your conclusion memorable, because listeners will repeat it when asked, *What did Jones say?* Learn it well enough to present it looking at your audience, without reading from notes. It should have these three parts:

- your claim, in more detail than in your introduction (if listeners are mostly interested in your reasons or data, summarize them as well)

- your answer to *So what?* (you can restate an answer from your introduction, but try to add a new one, even if it's speculative)
- suggestions for more research, what's still to be done

Rehearse your conclusion so that you know exactly how long it takes (no more than a minute or two). Then when you have that much time remaining, conclude, even if you haven't finished your last (relatively unimportant) points. If you had to skip one or two points, work them into an answer during the question-and-answer period. If your talk runs short, don't ad lib. If another speaker follows you, make her a gift of your unused time.

13.2.4 Prepare for Questions

If you're lucky, you'll get questions after your talk, so prepare answers for predictable ones. Expect questions about data or sources, especially if you didn't cover them in your talk. If you address matters associated with well-known researchers or schools of research, be ready to expand on how your work relates to theirs, especially if you contradict or complicate their results or approach. Also be ready to answer questions about a source you never heard of. The best policy is to acknowledge that you haven't seen it but that you'll check it out. If the question seems friendly, ask why the source is relevant. Don't prepare only defensive answers. Use answers to questions to reemphasize your main points or cover matters that you may have left out.

Listen to every question carefully; then to be sure you understand the question, *pause before you respond and think about it for a moment.* If you don't understand the question, ask the questioner to rephrase it. Don't snap back an answer reflexively and defensively. Good questions are invaluable, even when they seem hostile. Use them to refine your thinking.

13.2.5 Create Handouts

You can read short quotations or important data aloud for your listeners, but if you have lots of them, create a handout. If you use slides, pass out printed copies. You might hand out an outline of your main points, with white space for notes.

13.3 Plan Your Poster Presentation

A poster is a large board on which you lay out a summary of your research along with your most relevant evidence. Poster sessions are usually held in hallways or in a large room filled with other presenters. People move from poster to poster, asking questions of the presenters. Posters combine the advantages of writing and speaking. Those who read your poster have more control than a listener, and they can rely on prominent visual signals that you use to organize your material—boxes, lines, colors, and larger and smaller titles.

You can design your poster using available software and websites that produce a serviceable final product. For the text itself, however, follow the guidelines for a paper to be read aloud, with two more considerations:

1. Layer your argument. Present your argument visually in three levels of detail:
   - Highlight an abstract or a problem statement and summary at the top of the poster (box it, use larger type, etc.).
   - Under it, list your reasons as subheads in a section that summarizes your argument.
   - Under that, restate your reasons and group evidence under them.
2. Explain all graphs and tables. In addition to providing a caption for each graphic, add a sentence or two explaining what is important in the data and how they support your reason and claim (review 7.7 and 8.3.1).

13.4 Plan Your Conference Proposal

Conferences are good opportunities to share your work, but to be invited to speak, you usually have to submit a proposal. Write it not as a paragraph-by-paragraph summary of your work but as a thirty-second "elevator story"—what you would tell someone who asked, as you both stepped into an elevator on the way to your talk, *What are you saying today?* In fact, a carefully prepared and rehearsed elevator story is especially useful for any conversation about your work, particularly interviews.

An elevator story has three parts:

- a problem statement that highlights an answer to *So what?*
- a sketch of your claim and major reasons
- a summary of your most important evidence

Conference reviewers are less interested in your exact words than in why anyone should want to listen to them. Your aims are to pose your research question and to answer the reviewer's *So what?* So focus on how your claim contributes to your field of research, especially on what's novel or controversial about it. If you address a question established by previous research, mention it, then focus on your new data or your new claim, depending on which is more original.

Be aware that reviewers will often know less about your topic than you do and may need help to see the significance of your question. So even after you answer that first *So what?*, ask and answer it again, and if you can, one more time. Whether your role at a conference is to talk or only to listen depends not just on the quality of your research but also on the significance of your question.

14 On the Spirit of Research

As we've said, we can reach good conclusions in many ways other than research: we can rely on intuition, emotion, even spiritual insight. But the truths we reach in those ways are personal. When we ask others to accept and act on them, we can't present our feelings as evidence to convince others of our claims; we can ask only that they take our report of our inner experience—and our claims—on faith.

The truths of research, however, and how we reached them must be available for public study. We base research claims on evidence available to everyone and on principles of reasoning that, we hope, our readers accept as sound. And then those readers test all of that in all the ways that they and others can imagine. That may be a high standard, but it must be if we expect others to base their understanding and actions, even their lives, on what we ask them to believe.

When you accept the principles that shape public, evidence-based belief, you accept two more that can be hard to live by. One concerns our relationship to authority. No more than five centuries ago, the search for better understanding based on *evidence* was often regarded as a threat. Among the powerful, many believed that all the important truths were already known and that the scholar's job was to preserve and transmit them, certainly not to challenge them. If new facts cast doubt on an old belief, the belief usually trumped the facts. Many who dared to follow evidence to conclusions that challenged authority were banished, imprisoned, or even killed.

Even today, those who reason from evidence can anger those who hold a cherished belief. For example, some historians claim that, based on the sum of the evidence, Thomas Jefferson probably fathered at least one child by his slave Sally Hemings. Others disagree, not because they have better counterevidence but because of a fiercely held belief: *a person of Jefferson's stature couldn't do such a thing* (see 5.5). But in the world of research, both academic and professional, good evidence and sound reasoning trump belief every time, or at least they should.

In some parts of the world, it's still considered more important to