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Instructor's Guide

A Manual for Writers of Research Papers, Theses, and Dissertations, 7th Edition

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Preface

Since it first appeared in 1937, *A Manual for Writers of Research Papers, Theses, and Dissertations* has focused on matters of form and format in research reports. The seventh edition includes a new section, "Research and Writing," a guide to the entire process of research and its reporting. Experienced writers will find parts of this new section useful, but we also designed it so that less experienced students can use each section systematically, guided by their teachers or advisors.

In this Instructor's Guide, we suggest ways you can help students benefit from this new section. The first part of the guide offers four kinds of assistance: (1) general advice; (2) advice for using the book as a class text; (3) advice for using the book as ancillary reading; and (4) advice for working with students pursuing independent projects ranging from undergraduate honors theses to doctoral dissertations. We also include a quick guide to responding to drafts and marking up papers and a collection of specific activities for implementing our advice with relatively inexperienced students; you can use these activities in class, as homework, or when working with students individually. The first time we mention each key topic, we indicate where in the book you will find our main discussion of this topic.

The remainder of the *Manual for Writers* covers the subjects for which the book has always been known: source citation, style (punctuation, capitalization, and so forth), and paper format.

Although this material is not as suitable as the "Research and Writing" section for use as a class text, some portions of it could serve as ancillary reading (such as chapters 15, 16, and 18 on citation styles). More likely, you will want to encourage students to consult these sections for advice on specific format issues throughout the writing process.

1. Using the *Manual for Writers*

General Advice

Problems, Problems, Problems

If one issue makes or breaks a student research project, it is the quality of the problem that the writer poses. Students with good questions (chap. 2) find more useful sources (chap. 3–4), read more thoughtfully, and make better decisions in planning and drafting their papers. Students with not even a question to answer, much less a good problem to solve, are more likely to wander, to pursue dead ends, to write for themselves rather than for their readers, and therefore to need more of your guidance along the way and more extensive feedback at the end.

So you'll be amply repaid for the time you invest in helping students begin well because they will then understand that their job is not merely to mound up facts on a topic (1.1, 2.1), no matter how new or interesting, but to use those facts to help their readers understand something better by solving a problem important to them.

Different disciplines, of course, work on research problems not only of different kinds but of different degrees of novelty (1.2). There are exceptions, but researchers in the natural sciences tend to work on problems that readers already know about (or that obviously emerge from a line of established research). At the opposite extreme, those in the humanities more often

invent research problems that are novel to readers, with new and unexpected consequences and significance. Some social scientists work on known problems, some on invented ones, and some on problems whose question is widely recognized but whose consequence and significance are not well understood.

If one of your students is working on a problem of known significance, you have only to ensure that he formulates it carefully and clearly, so that he knows what data will serve as the best available evidence for solving it (chap. 3–4). Less experienced students often want to frame their research not in terms of a narrow question they can answer but in terms of a question too large for any one research project to solve. So they need help both to *narrow* their questions and to *focus* their research on that narrow question.

For example, a student interested in the general problem of binge drinking could usefully narrow her question to how students assign responsibility for injuries associated with that problem. She could then collect data on how students react to injuries caused by a fight involving a binger: Do they blame the binger (for drinking or for not walking away)? Those with him (for letting him drink or for not preventing the fight)? The bar (for serving him too much liquor or for lax security)? And so on. Those data answer a specific question: *Do students focus on the person bingeing when they assign responsibility for consequences of it*? The answer to that question might help them answer a more useful question: *Why don't binge drinkers learn from the experience of their classmates?* This might in turn help answer a

still more useful question: *How can schools help students appreciate the danger of binge drinking?* But if the student researcher imagines she is (or should be) answering those larger questions, she will be less likely to stay on her specific topic; gather reliable, sufficient, and, most important, *relevant* evidence; and avoid overgeneralizing from insufficient data. And if in her report she claims to have solved the larger problem, she will be unpersuasive at best.

If, however, your student must begin at the beginning—finding a question, then *inventing* a problem out of it—you will have to involve yourself in the process from start to finish. Many undergraduates and even some dissertation students are more interested merely in reading about their topic than in drawing a problem out of it. And the only research report more tedious to read than an undergraduate's narrative of her thinking is a thesis or dissertation that compiles all that an energetic graduate student can find in a year or more of assiduous work. You have to keep asking such graduate students, "So what? What is the question whose answer all your data support? How will answering your question change how we think about this issue? Whose mind will you change? How is this more than a data dump?" (2.1, 5.4.1).

Insist early in your discussions that the student not only narrow her topic but expand her base of questions. Have the student rank questions and defend her ranking. Once she finds potentially viable questions, have her identify those in her field who might be interested in such a question (and, perhaps,

those who won't be). Ask the student which areas of whose research she will challenge if she convincingly answers her question, and how those working in her area might resist it. Students at all levels find such questions vexing, frustrating, even painful. They can easily undermine the confidence of younger students. But for advanced graduate students, there is no alternative. Better they should face those questions now than at a dissertation defense later or, worse, at a hiring interview. As they advance, students must learn to find/invent good questions on their own, so make them aware from the beginning of what lies ahead.

But with beginning students, cultivating and supporting that development takes time, patience, imagination, and a keen understanding that undergraduates require a less challenging, more supportive environment. You can avoid some of the anxiety that this questioning entails by assigning your own questions. At some point, however, you must help the newest students start thinking about finding their own.

First, create an atmosphere of constant questioning, where no question is dismissed out of hand. In class, conduct regular exercises in which students invent, evaluate, revise, and reevaluate questions—at first, only for their interest and significance, but later also for their answerability. Once a student has some good questions, gently press her with the notion of *So what?* "How might answering this question help us understand something important? I wonder who might be interested in seeing this question answered. How might it change their

thinking?" Model a kindly reader asking such questions, but be firm in pursuing an answer.

The student may have to do a bit of reading in the literature and then some hard thinking about it to find a tentative answer to a plausible *So what?* But equally useful is conversation with those in the field. Have the student discuss her topic with you and anyone else who will listen. She may be on to a budding answer to *So what?* if she is sensitive to sparks of interest, especially to moments of puzzlement.

In short, take the time to put students through the exercise of generating questions, exploring their possibilities, then explicitly explaining what makes them interesting or pointless, consequential or trivial to *specific* readers. Use your own research as a model. Why did *you* pose the question you did in *your* thesis or dissertation? How difficult was it for *you* to find a good question? What kind of frustration did *you* experience? Make it clear that finding a problem that others might care about can take time, but that it is just part of a process that we all struggle through.

Talk, Talk, Talk

Research can be a lonely experience. Except for research teams, most students retire to the silence of their own thoughts, sometimes for months, even years. But everything we know about writing and thinking suggests that most of us work more slowly and less well when we work alone. To be sure, the solitary way is comfortable for many students (not to mention many teachers). And

in fact, some experienced researchers work as well or better alone.

But even then, experienced researchers have a sense of who cares about their work and why. They can anticipate what readers do and don't know, can and can't understand, will and won't resist. None of that is easy for new students (or, the research shows, for most experienced scholars). Most senior researchers rehearse their work all the time—for colleagues, friends, students, in seminars, at conferences, on e-mail lists, in grant proposals, and on and on. Create similar opportunities for your less experienced students.

Create occasions and obligations for students to talk about what they are studying, why it matters, what they are finding, what they still want to know, what parts are weak and need bolstering, and so on (12.2). It doesn't always matter that they talk to someone who can guide them with hints, answers, references, or counter-arguments. Sometimes, the talk is as important as the reaction to it—students can benefit even from talking to their dog if it forces them to hear how clearly they can say out loud what they think they are thinking. Form students working independently into writing groups (2.4); have them e-mail you regular reports, talk to colleagues, friends, anyone. Some students will be uncomfortable with the idea, so you will have to insist. But they'll be glad you did. And so will you.

Think, Think, Think

Few beginning researchers use their writing and methods of research as tools for thinking. Like most people, they tend to see writing and speaking as merely "packaging" their ideas, not as a way to discover and improve them (4.4). Students are reinforced in that "container" theory of language—ideas first, words second—by many routine writing practices. In a science lab, for example, some teachers tell their students to record all their data (as though this were not part of the writing process), determine their results, and then, after they've done their serious thinking, to just "write it up." A history professor also encourages this "think-then-write" approach when he asks for finished outlines of papers before students start drafting them (2.3, 6.2.1).

Earlier, we encouraged you to create opportunities for students to talk about their work not only because finding the words helps them discover their ideas, but because hearing their ideas in words helps writers reflect on them more carefully and critically. You can also build thoughtful and critical reflection into other aspects of your students' writing processes by "staging" their work with moments that encourage or even require it.

When assigning a paper, don't just set a deadline. Instead, create a series of due dates that "stage" their research and writing. Map out milestones that will force students to practice the kind of processes outlined in "Research and Writing,"

including those where they must share, talk about, or reflect on their written work as they go (see pp. 24-30).

Do not, however, let students allow those stages to limit their thinking. Treat problem statements (6.2.2), elevator stories (2.4), outlines (6.2.1), and the like not as templates but as speculative instruments—*Does all this fit together? What's irrelevant? What's missing? Might this idea help?* Vary the circumstances so that these moments of reflection do not become mere enforced rehearsals. But even if what students give you seems more like rote repetition than critical reflection, you are acquainting them with the kind of circumstances that lead to creative thinking, if not this time then perhaps the next.

Maintaining Discipline for the Drudgery of Recording Citations

In section 3.2, we caution students to record all bibliographical information each time they identify or use a source. Many students find such cautions easy to dismiss, even after they waste hours hunting down information they should have recorded earlier. You help your students, especially inexperienced ones, if you take the time both to encourage students to record bibliographical data systematically *and early* and to show them strategies for doing so. You are unlikely to convince students that such work is anything but drudgery (because that's what it is), but you can offer realistic motivation—it's what "real researchers" do—and impress them with the negative consequences of failure: wasted time, grade penalties for incomplete

citations, and worst of all a charge of plagiarism, if they fail to cite material because they lack the data (chap. 15).

Scheduling the Work

Research on scholarly writing has found practices that are good for most students but that some of us are reluctant to enforce:

- Researchers who write in short but regular sessions are typically more productive (and successful) than those who write in longer, sporadic bursts.
- Researchers who regularly record and report their progress to someone (often, not their supervisor) are typically more productive than those who do not.

We do not take a position here. We always urge students to adopt both practices, and at times, with some chronically slow dissertation students, we have insisted on both. But we confess that we are often reluctant either to demand or to police students' habits of drafting (7.2, 7.11).

Helping Very Inexperienced Students

Different kinds of research require different kinds of data, different methods of gathering and analyzing them, different ways of using them to support claims, and different ways of reporting those claims and their support (5.4). Thus no one class experience can prepare students for all the research they will have to do later. But there are a few principles that underlie how students must *define* what they are doing and a few that

encourage a project's successful completion, from research papers in first-year writing courses to research intended for publication. Here is how students must define their task.

- Researchers do not gather data for their own sake, but rather to pose a question whose answer solves a problem.
- Readers must see the significance of those questions, answers, problems, and solutions.
- Writing is as intellectually challenging an element in the process of research as any other part.

Here is the minimum you must do to encourage success.

- Create an environment in which questions are, at first, more important than answers, and all questions are worth thinking about.
- Model evaluating those questions, then show students how to emulate you.
- Encourage students to talk, talk, and talk some more, with anyone who will listen.
- Remind students that learning to write research papers is like learning to do anything difficult but worth doing: No one gets it right the first time, or the second, or the third, or . . . For beginning researchers, what counts is the frame of mind, the understanding of what they are up to.

- Instead of forgetting the anxiety and pain that each one of us has experienced in our own research, use it to model what good research looks like and share how difficult it is to do it well.

Using the *Manual for Writers* in Class

Few students learn to write by memorizing formal rules from a book like this. They need to write but also—before and after writing—to talk. And they need to learn about the written forms they are expected to produce not as inert knowledge that they will use "some" day, but *as practical guidance for a task they are engaged in*. Students can get a quick overview of the whole process if you have them skim this book, but after that, do not grind your way through the book in class, disconnected from what they are *doing*. Use the readings in "Research and Writing" to support the thinking and writing that students are actively *doing*. Here are some suggestions:

- Do not assign just a deadline for the paper. Instead, create a series of due dates that "stage" the research and writing. Students seldom manage their time well on long projects, partly because they do not recognize the importance of doing so, but also because they do not know how. Break your assignment into stages that will force them to practice the kind of processes outlined in "Research and Writing," including stages where they must either share or talk about their written work as they go (see pp. 24-30).

- Organize the portion of your class devoted to writing the research paper not around just talking about it but *modeling* the writing process that they should be following. Plan for both classroom and homework

activities that will make explicit what experienced writers do automatically. Use your own experience: tell them about the research you are doing, as well as why and how you are doing it.

- Move from intuition to principle. Students must learn the forms and practices that govern academic research, but they will use them well (and remember them) only when they can connect those forms and practices to their intuitions—linguistic, interpersonal, and practical. Consider, for example, our advice that students take notes on positions that do not help their argument (see 4.3). They understand why that is important (and take better notes) when they experience in class how unpersuasive someone is who merely states a view while failing to acknowledge that others think they have a sound basis for a different view of their own.

Using the *Manual for Writers* as Ancillary Class Reading

Few students learn to write by memorizing formal rules from a book like this. They need to write but also—before and after writing—to talk. And they need to learn about the written forms they are expected to produce not as inert knowledge that they will use "some" day, but *as practical guidance for a task they are engaged in.* Students turn what they hear into practical knowledge only when you show them how by modeling it, something that is particularly difficult without the support of classroom instruction and discussion.

Here are some suggestions for ensuring that students use the book usefully even if you do not devote class time to it:

- When you assign a paper, don't just assign a deadline for it. Instead, create a series of due dates that "stage" the research and writing. Students seldom manage their time well on long projects, partly because they do not recognize the importance of doing so but also because they do not know how. Map out milestones that will force students to practice the kind of processes outlined in "Research and Writing," including those where students must either share or talk about their written work so far (see pp. 24-30).

- Coordinate reading assignments (or even just suggested readings) to the staged due dates for the paper. If your students are inexperienced, they will not understand the

research and writing process well enough to know when to look for help and what help to look for. They will get more out of the book (and present you with fewer problems) if you set milestones and tell them where to find help in meeting them. For example, for a project that you expect to last a month, you might require students three weeks in advance to have either a tentative problem statement or, failing that, a list of three plausible candidates; coordinated with that deadline, you would assign sections 1.1, 2.1, 2.2, and 10.1.

- Devote some class time to your assignment: explain what you want from students and why; have students discuss what they can do to fulfill the assignment; go over the table of contents of the *Manual for Writers*, explaining when, how, and why students might consult it as they work.

- If students have little or no experience with the genre you assign, show them models. Do not offer just one good example: it will become a straightjacket. Instead, distribute *and discuss* a range of relatively successful papers *and no less important, papers that did not succeed*. We can never know what counts as good until we can contrast it with what is not. Identify for students those features you particularly want to see in their papers (along with those you don't), coordinated with the

pages in the "Research and Writing" section that discuss them.

- Finally, when you respond to papers, coordinate your comments to particular pages in the *Manual for Writers.* Not only will that save you having to explain the same issues on paper after paper, but you will increase the chances that students will reflect on and learn from your comments. But if you merely edit a paper or make comments that merely suggest changes without explaining them, you become not a teacher but an editor. Students are more likely to learn from your comments if you pick out specific passages or sections that they must revise in light of them (you do not have to re-grade the revisions for students to benefit from revising). You might also review with students chapter 12 on how to talk with an instructor about a returned paper.

Using the *Manual for Writers* for Independent Projects

If a student is advanced and experienced enough, tell him to use the *Manual for Writers* in whatever way suits him best—he can read it through to consolidate his knowledge and get useful tips; he can work through only those sections on matters he has found difficult; or he can use it as a reference work to be consulted as needed.

But a less experienced student will need your help to get the most out of the book. Here are some suggestions that help students without overburdening you:

- Work with the student to set milestones for important "stages" in her work, with at least tentative due dates associated with each. Students seldom manage their time well on long projects, partly because they do not recognize the importance of doing so but also because they do not know how. Even if you do not have time to review the products of these interim stages, make the student share them with you.
- At each milestone, discuss with the student what parts of "Research and Writing" are most relevant to the next stage. (Since this is an independent project, it would be appropriate for you to require the student to tell you which parts she plans to consult for the next milestone.)
- If a student has little or no experience with the genre you assign, either show her models or have her

investigate them on her own. (Early on, every dissertation student should study a few typical dissertations, not for their content but for their formal aspects.) Do not offer just one good example: it will become a straightjacket. Instead, identify *and discuss* relatively successful models along with models that illustrate common failures. We cannot know what counts as good until we also know what does not. Discuss with the student those features you particularly want to see in her work (along with those you do not), coordinated with the pages in "Research and Writing" that discuss them.

- Finally, when you respond to drafts, coordinate your comments to particular pages in the *Manual for Writers.* That will not only save you from having to explain your comments, but encourage your students to reflect on and learn from them. If your comments only suggest or make changes with no discussion of the reasons for them, you become not a teacher but an editor. If you do so repeatedly, your student will have an incentive to reverse-delegate to you the final responsibility for her work. That not only increases your workload but deprives the student of an important learning experience.

2. A Quick Guide to Marking Students' Papers

1. Distinguish *marking* papers (a learning outcome) from *grading* papers (an evaluation outcome).

We mark up papers so that students can learn from our response to them. Students seldom learn much of anything from a paper marked up to show all the errors that contributed to a grade (poor students get too many marks, good students too few). So never put marks on a paper just to justify a grade. (In practice, this might mean marking and grading separately and returning two versions of the paper at different times.)

2. Let students help you decide when to mark their papers.

If you stage assignments, you are unlikely to have the time to respond to each stage in detail, and in any case students will not benefit if they see that you will take responsibility for each step. You should give students full responses only when it will do them the most good. If you wait until the end, students are unlikely to pay more than lip service to your comments. If you respond when students have a complete draft, some of them will use your advice to improve their final papers, but others will have played out the consequences of a poor choice of problem—so that the only truly helpful response is to make them start over. On the other hand, students who find a good problem will benefit from a later rather than an earlier response. So, if you respond selectively, discuss with your students what they can expect from responses at various stages in the process, and let

them help you decide when each student will benefit most from the time you can give them.

3. When you don't respond, students can learn from their peers.

To most teachers (and students), peer editing seems little more than the blind leading the blind. If students were good editors, they wouldn't need our help as much as they do. But if students are generally poor editors, they are usually excellent surrogate readers. So create opportunities for writers to learn what their colleagues understand or not, where they struggle or not, where they resist or not. A student writer can learn a great deal from a colleague's summary of her argument, especially when the summary is not what the writer expected. She can learn from a colleague's list of possible objections or alternative conclusions, if not to identify weaknesses then to have issues for acknowledgment and response. Let students help each other, not by making suggestions (though of course suggestions are welcome), but by analyzing and responding to storyboards (2.3) and drafts.

4. Don't mark as you read.

The most efficient way to mark a paper is to analyze it before you read closely enough to mark it up. Start by reading the introduction, conclusion, headings, and opening paragraphs to major sections. If the paper is coherent and reasonably well executed, those elements will constitute the best overview. If the paper is incoherent or poorly reasoned, you'll see the problem right away. (When the introduction and conclusion are

inconsistent, it is usually the conclusion that represents the student's best thinking—or at least the thinking that has dominated the argument.) Once you have an overview, decide on a tentative agenda for your marks (see #6). Then read the paper carefully enough to pick out specific issues to address. It is generally better if anything more substantial than line editing comes to the student on a separate page, keyed to pages or to numbers in the margins. Students learn better when your response respects the difference between their words and yours.

5. In marking, less is more.

The research is clear: for most students, the more you mark, the less they learn. If you want to use marking to teach students something they can use in their next papers, you have to select one or two key points and focus on them. (In practice, this means reading and diagnosing the paper *before* you start marking it up; for most teachers this is faster than marking as you go.) If you line edit papers, you do not teach students anything about grammar or editing; you simply teach them that they can demote you to a copyeditor.

6. Have a learning agenda for your marks.

As teachers, we all know that students cannot learn everything at once. So when you mark papers, select the one or two most important matters you think that student should work on. Then use your marks to focus the student on those matters and to explain both how to recognize the problem and how to avoid or mitigate it. We don't help students by teaching them how to remedy all of

the errors or infelicities *we* can find; we help them by teaching them how to avoid, or at least find and fix, the weaknesses in their papers that are most important *and that they are prepared to learn how to fix*.

7. Mark papers "top-down."

In general, the problems in a draft cascade downward. A poor problem usually leads to a weak argument; an incoherent argument usually leads to a disorganized paper; a disorganized paper usually leads to poorly crafted sentences. When a writer struggles with the higher-level features of a text, he usually executes lower-level ones less successfully than he otherwise could. So unless you have a specific agenda for an individual student, the best strategy is generally to focus the student on the highest level problems in a draft. Chances are that once the high-level issues are addressed, the low-level problems will disappear; or if not, they will then be more easily fixed.

8. Don't penalize good papers by leaving them unmarked.

Although we all treasure a paper that seems not to need correction, you do not help good writers by returning clean papers that offer only general praise. Use the time you save by not editing to mark up good papers as well. If you cannot find something important that the student should change, use your marks to show students the most important things they should not change. Papers often succeed by accident, and students usually cannot explain even to themselves exactly why a paper worked. Use

your marks to teach good students how to replicate their successes next time.

9. **The most effective marks focus on a reader's response, not on the writer's success or failure.**

You can phrase your criticism of a student's writing in different ways: (1) *You put these points in the wrong order.* (2) *Your paper has its points in the wrong order.* (3) *I couldn't see how these points fit together because their order confused me.* Not only is the third gentler and kinder, but it reinforces the most important and most difficult lesson any writer must learn: *Readers rule!*—what matters is not how your text seems to you but how it seems to your readers.

10. **The most effective marks about writing have three parts: they (1) point out the specific issue on the page, (2) articulate the relevant general principle, and (3) suggest a change or, better, direct the student to make a change.**

In order for students to learn from your marks, they have to know exactly how the marks apply to the paper at hand. Your goal should be for students to learn something they can use to improve both the current paper and the next one, so they have to understand not just how to fix this paper but the general principle that they can apply to the next one (this part can usually be a canned response). And in order for them to be able to use your advice, they have to see it in practice or, best of all, practice it themselves.

For example, *I became confused when you raised the issue of Alexander Pope's Catholicism in the middle of page 3, because nothing before this led me to expect that it would be a major issue in your paper. I was able to figure out the connection, but I had to work too hard to do so. Remember that your readers will do a better job of following your argument if they can anticipate (or at least not be surprised by) all of its major themes. So be sure that your most important themes are at least mentioned near the end of your introduction. I think you can probably find a way to mention Catholicism or at least religion in the last couple of sentences of your intro. Give me a revision of just the intro that does that by Monday the 3rd.*

11. The most effective marks about argument—"content"—have three parts: they (1) point out the specific issue on the page, (2) explain what gives you pause, and (3) make a suggestion or, better, ask a question pointing the student in a new direction.

You do not help students if your comments merely correct their misunderstandings or substitute your analysis for theirs. Students learn best when you comment on their positions (both favorably and unfavorably) in ways that share your own reasoning.

For example, *You're right, of course, when you say in the middle of page 3 that Alexander Pope's Catholicism made him an outsider. That's a shrewd observation. But I've got a problem with saying that it's the only factor in his attitude toward, as you say, "the rich and famous" (Pope would have called it the "beau monde"). After all, he was a short, unattractive*

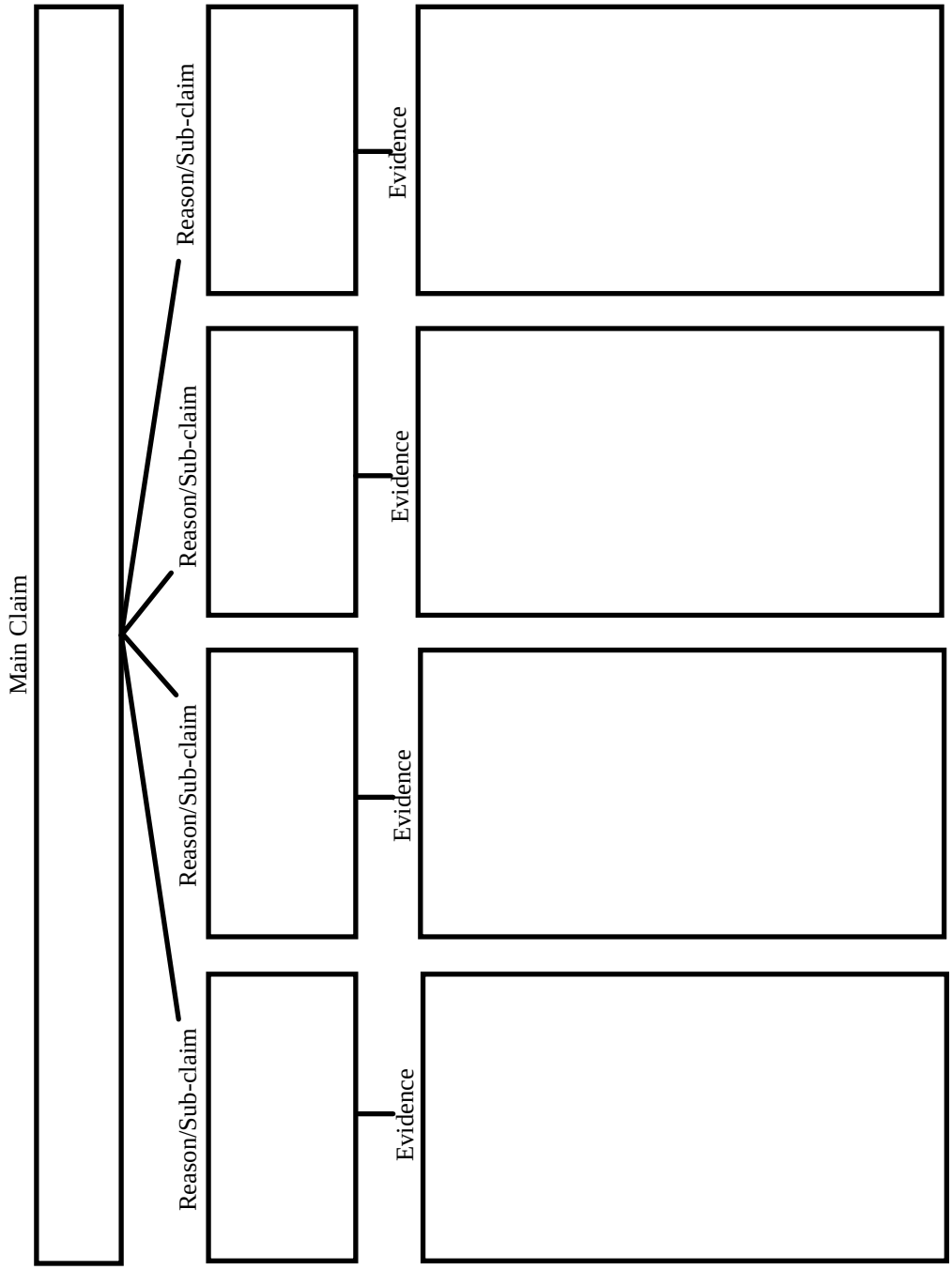
hunchback with only middling family connections and at this point not a lot of money. In view of those factors, isn't there an even stronger point to be made about Pope's feelings of being on the outside looking in?

3. Some Activities for Managing the Writing Process

Here are some specific activities for implementing our advice with relatively inexperienced students; you can use these activities in class, as homework, or when working with students individually.

Argument Boxes

The matrix on the following page helps writers and readers analyze an argument by summarizing its claim, reasons, and evidence (chap. 5) in the appropriate boxes. It may also be used in several of the other exercises in this part.


Main Claim
Reason/Sub-claim
Evidence
Reason/Sub-claim
Evidence
Reason/Sub-claim
Evidence
Reason/Sub-claim
Evidence

Brainstorming Readings

This activity is a good way to get students to practice generating the parts of an argument as they think about a reading. If you use this technique early, students will be better able to anticipate the kind of arguments they need to make when they start collecting material from sources.

Materials

You'll need a board or overhead to record responses. For this exercise, it is best not to use a student as a scribe, because you may want to edit responses before writing them down. It is useful to ask a student to copy what you put on the board, so that you can reproduce it as notes for the whole class.

Process

1. Put a claim about a reading on the board. The first few times you try this exercise, select three or four claims about aspects of the reading you want to discuss. Later you can let students generate the claims.

2. Starting with reasons, you and the students build an argument for the claim, including any objections, reservations, or counter-evidence. (Occasionally select claims with more going against than for them.)

3. Once the students run out of energy and ideas, revisit the claim to see whether you can refine it to fit the argument more closely.

Brainstorming Questions

This activity gives students new to research practice in generating and evaluating questions for conceptual problems. It primes them both for class discussion and for choosing research topics, ensuring that they see themselves as responding to a real and immediate audience.

Materials

You will need to compile and copy students' questions. You'll also need a board or overhead to record students' choices of questions. You may want to appoint a scribe.

Process

1. Assign students to formulate three questions about an issue or a reading. They can use the procedure in 1.1-1.2 ("I am writing about _____ in order to find out . . ."). Make the questions due the afternoon or evening before class, so that you can compile them into a master list. It is easiest if you have students e-mail their questions to you.

2. Compile the questions into a list. Group closely related ones, putting all questions unsuitable for argument in a group. (It is a useful exercise to explain why they are unsuitable.) Add any that students do not propose but that you would like them to consider.

3. In class, put students in groups. Have each group pick the three or four questions they think are most promising. The group can revise a question before proposing it.

4. Reconvene the class and compile a list of the questions chosen by each group. As a group proposes a question, ask its members to explain why they selected it. Keep track of questions selected by more than one group.

5. If you intend to use these questions only for class discussion, you can either start in right away or assign students to prepare answers to the top five questions for the next class. If you intend them as paper topics, you will get better questions if you go on to a second round.

6. For paper topics, assign students to reformulate at least one and at most two questions based on what they learned in the first round. Have them turn in the questions the afternoon or evening before class. Once again, compile a master list.

7. In class, put students into groups. Have each group pick the two most promising questions on the master list. The group can revise a question before proposing it.

8. Reconvene the class and compile a final list of proposed questions for papers. Veto questions likely to give students too much trouble.

Post-Discussion Questions

This activity also gives students practice in generating and evaluating questions for conceptual problems, but in response to a class discussion. It helps you know what students have understood and what has engaged them in a discussion. You will have time for the full version of this activity only in a class longer than fifty minutes.

Materials

You will need a board or overhead to record students' questions.

Process: Short Version

1. On a day devoted to a class discussion or lecture, stop the discussion ten minutes before the period ends. Give students five minutes to write at least one but preferably two questions for continuing the discussion. Emphasize that the question can be on any aspect of the discussion or lecture.

2. Put students in groups of three or four and give them five minutes to select the one or two most promising questions from the group. Collect the questions and select three or four as the basis for the next class.

Process: Long Version

1. On a day devoted to a class discussion or lecture, stop the discussion at least twenty minutes before the period ends. Give

students five minutes to write at least one but preferably two questions for continuing the discussion.

2. Put students in groups of three or four and give them five minutes to select the one or two most promising questions from the group. Have each group write its question or questions on the board.

3. Give the groups five minutes to select the one or two most promising questions on the board.

4. After you collect the votes from the groups, assign the four top questions as study questions for the next class.

Making Trouble

In this activity, students learn to recognize what kinds of disagreements do and do not generate productive, thoughtful interest from others.

Process

1. Have students join a news group or e-mail list in your field. If the list has an archive, they should study the messages going back two or three weeks. If not, they should read and save postings for a week or more.

2. After they get a feel for the conversation, students should study all of the postings that create productive disagreements—those that lead to a thread of reasonable exchanges rather than silence, rants, or personal attacks.

3. Have students share what they have found with the class in general class discussion, brief oral reports, or e-mail reports.

Brainstorming Papers with Questions

In this activity, students practice using questions to generate ideas for their arguments.

Process

1. Tell students to bring to class four copies of one page with (a) a one-paragraph statement of their problem, (b) a plausible solution / claim (two if they can), and (c) a list / outline of the reasons relevant to their claim.

2. Divide the class into groups of three, and ask students to share their one-page summaries. Each group goes through three five-minute rounds, in which two students question the third about her ideas for the paper. The questioners should ask both friendly and unfriendly questions. (A good way to do this is to have one ask only friendly questions and the other only unfriendly ones for half the round and then switch roles.) The student questioned should take notes on both questions and her answers. (They might tape these sessions for later reference.)

Conference Proposals

This activity helps students think about how their research questions respond to a community of inquiry.

Process

1. Before assigning a paper, have the class go through at least one round of Brainstorming Questions (see p. 34) to prime their thinking.

2. With the whole class, help students select at least six questions too large for papers or even just general topics related to the theme of the class.

3. Then write up and distribute a "Call for Papers" with four or five panels based on the best questions or topics. Describe each panel as broadly as you can, but point students toward manageable paper questions.

4. Each student must subscribe to one of the panels. If any panel has fewer than three subscribers, cancel it. If a panel gets too big, divide it.

5. Require students on a panel to work together to formulate individual paper topics related to the panel, to serve as readers and editors through the drafting process, and to present papers to you bound together as a panel.

6. (*Optional*) If you have time, have panels give presentations. Don't let students read their papers out loud to the class; give them twenty minutes to share with the rest of the class what they

learned about their general topic. Ask them to meet to prepare and rehearse their presentations.

7. (*Optional*) Give students a chance to revise their papers after their presentations.

Finding Common Ground

In this activity, students practice writing the common ground, or literature review, section of an introduction (10.1.1). It also gives them practice researching either in the library or on the Internet. You can assign it as an exercise or as a part of the revising process for an assigned paper.

Process

1. After students have completed any of the activities for generating questions for paper topics, have them state their questions as conceptual problems.

2. Have students find texts articulating positions that their problem contradicts, complicates, completes, or otherwise destabilizes. Then have them add to their problem statements two or more versions of common ground based on those texts. Students should try to make their statements of common ground as different as the texts will support.

3. (*Optional*) Have students discuss how those different statements of common ground would color their problem and shape their readers' expectations.

Retrofitting Problems

In this activity, students learn how to recast their problem when the argument they make does not resolve the problem they started with.

Materials

You will need at least three or four well-written papers without introductions but with complete conclusions.

Process

1. Assign students to read each paper, picking out the claim and major reasons. You can have them fill out Argument Boxes (see pp. 31–32).

2. Put the class into groups to formulate a problem for each paper, including both the condition and its costs or consequences.

3. Reconvene the class to share the problem statements. Each group should explain how the problem anticipates the paper and, conversely, how the argument in the paper resolves the problem.

Retrofitting Introductions

This activity follows up on Retrofitting Problems (p. 43), making students take the further step of writing a full-scale introduction.

Materials

You will need at least three or four well-written research papers without introductions but with complete conclusions. If possible, have soft copies (available on a server or Web page) as well.

Process

1. Have students work through Retrofitting Problems or read each paper, picking out the claim and major reasons.

2. Assign students to write introductions for some or all of the papers, if possible adding them to soft copies so that they can print and mark up the complete papers.

3. Have each student show how the introduction matches the conclusion. Have them do the following:

   - Put a box around the common ground, another around the problem statement, and a third around the resolution.
   - Underline the (re)statement of the claim in the conclusion.
   - Circle words in the introduction that refer to key themes. Circle those words or words like them throughout the paper.

- Briefly state how the paper resolves the problem stated in the introduction.

The Paper Exchange

These activities give students responses from readers and help to make the class a community of readers.

Outlines

1. Have students bring to class four copies of an outline of a draft in progress. It can be in Argument Boxes (see pp. 31–32), a storyboard, or a traditional outline.

2. Put students in groups of four. Have each writer present his outline, after which group members can ask all the questions they can think of. Students should rotate the job of recording questions for the writer.

Drafts 1

1. In groups of four, students exchange drafts. As homework, they read them and make notes on questions for the writer.

2. In class, the group questions each writer. Students should rotate the job of recording the questions for the writer.

Drafts 2

1. In groups of four, students exchange drafts. As homework, they fill in an Argument Boxes worksheet for each draft.

2. In class, the groups ask each writer all the questions they can think of. Students should rotate the job of recording the questions for the writer.

Drafts 3

1. In groups of three, students exchange drafts. As homework, they fill in the reasons and evidence in an Argument Boxes worksheet for each draft.

2. In class, the groups discuss each writer's evidence, suggesting evidence the writer can use or look for.

Drafts 4

1. In groups of three, students exchange drafts. As homework, they read them and make two lists: (a) three things they would change and (b) three things they would not. They bring three copies of their lists to class.

2. In class, the groups discuss each draft and share their lists with the writers. Each listmaker explains each item on the list. Encourage writers to question the listmakers.

Brainstorming Alternatives

In this activity, students practice imagining alternatives and objections.

Materials

You will need a list of issues on which students differ. You can draw questions from anywhere, but you can also use this exercise as a review if you look for instances in which students have already disagreed about the readings. If you share responses, you'll need a board or overhead.

Process

1. Have students declare their position in response to the issue. Put students in groups that share the same position.

   As homework, assign students two tasks:

   - List three objections to the argument that they anticipate the other group will make; then predict how the other group might acknowledge and respond to their objections.
   - List three objections that they think the other group may have against their position; then think of ways to acknowledge and respond to those possible objections.

   Students should bring enough copies for the group.

2. Have the two groups meet to share their lists and pick the five objections or alternatives that they think they can raise

against the other group, and the five objections or alternatives that they think the other group is most likely to raise against their own position.

3. Either collect the lists or, if you want to discuss them, reconvene the class to make a master list of acknowledgments for each of the possible positions. In each case, the acknowledgments should speak to the concerns of one or more of the other groups. If the groups do not feel that those acknowledgments represent their concerns, have the students try to figure out what went wrong.

NOTE: If your students find this exercise too challenging at first, have them represent the position opposite to their own; that way, to think of acknowledgments they have to consider only what they already think.

The Alternative Server

This activity shows students an easy way to practice finding alternative positions they can acknowledge and respond to.

Materials

Students must have at least a completed draft.

Process

1. As homework, assign students to search Web sites related to the problem of their paper, looking for arguments that complicate or contradict their own. Encourage them not to censor themselves, but to find as much disagreement as they can, no matter how silly it seems. Students should print the relevant parts of the sites.

2. Put students in groups of three to share what they found and select together the three positions most worthy of acknowledgment in each paper.

3. As homework, have each student write an appropriate acknowledgment and response for each position selected by the group, whether or not they decide to add them to the paper.

Exchanging Alternatives

In this activity, students help each other decide what alternatives and objections to acknowledge in their papers. It works best when students fall into two or three well-defined camps.

Materials

Students need copies of a draft in progress.

Process

1. Put students in groups of three.

2. Have students exchange papers. As homework, assign them to read the drafts of the other group members; they should make a list of every point they disagree with or can imagine someone else disagreeing with.

3. Ask students to respond to two or more alternatives raised by their colleagues.

My Favorite Martian

In this activity, students practice articulating warrants that seem too obvious to state. It helps them see when a warrant is obvious to them but not to others.

Materials

Students need several copies of a completed draft.

Process

1. Put students in groups of four and have them exchange copies of papers.

2. Have students look at the papers one at a time, with two playing the role of Martians who understand little or nothing about how things work on Earth and two responding (including the author of the paper). The Martians ask for a warrant for every step in the argument: *You say that the author's second point is more important than the first because he devotes three times as many pages talking about it; why do you say that?* The responders answer with a warrant: *Authors usually devote more pages to important subjects than to less important ones.* The Martians can then query the warrant: *What evidence do you have that an author devotes more pages to important subjects?* When the responders can't answer, the Martians move on to another claim and reason.

3. Reconvene the class to discuss how many questions readers can conceivably have and what students can do to anticipate them.