writers have a presence, though it's often ghostly. They are present in the questions they ask, the things they emphasize, and the words they choose. Academic researchers work within *discourse communities* that may limit their movements somewhat but do not ever bind their feet. "Discourse community" is a term academics use to describe certain identifiable ways in which people with expertise talk to each other, ask questions, or evaluate evidence they consider convincing. We all belong to discourse communities; any time you have a feeling that there are certain things that might be said and certain ways to say them, you're probably thinking of a particular discourse community.

Although you've been going to school for years, you're still fairly new to the academic discourse communities. You don't yet know how they work; that's something you'll learn later as you begin to specialize in your academic major. What's far more important as you begin academic research is developing the habits of mind that will help you know what might be a researchable question and how to see patterns in the information you collect, along with skills like knowing where to find the information you need. Most important of all, you should feel—no matter what you end up writing about—that you're part of an ongoing conversation about your topic: speculating, asking questions, offering opinions, pointing to gaps, making connections. In short, you must not vacate the building but occupy it, and the easiest way to do this, at least at first, is to worry less about the "rules" of the research paper than the process of discovering what you want to say.

The Question Is You

Okay, so how do you have a strong presence in a research paper aside from talking about yourself? More than anything else, you are present by the questions you ask, particularly the inquiry question that is at the heart of your investigation of a topic. An inquiry question both makes you curious about a topic and suggests what might lead to answers in which other people have a stake, too. A good question is a wonderful thing. As kids, my friends and I used to mess with magnets and iron filings. We would scatter iron filings on a steel pot lid and move the magnet around underneath, marveling at the patterns it produced in the filings. Good questions have the same power. They help you to see patterns in information and to organize it in a way that makes scattered information easier to make sense of. Finding the question, particularly the one *key* question about your research topic that most interests you, is how any

project becomes *your* project. In an inquiry-based investigation, questions power the process, and learning to ask good ones may be the most essential skill.

Thinking Like an Academic Writer

What does it mean to *think* like an academic writer? These are some habits of mind that are typical:

1. Academic inquiry begins with questions, not answers.
2. Because genuine inquiry must be sustained over time, it's essential that researchers suspend judgment and even tolerate some confusion. You do research not because you know what you think already but because you want to discover what you think.
3. Insight is the result of *conversation* in which the writer assumes at least two seemingly contrary roles: believer and doubter, generator and judge.
4. Writers take responsibility for their ideas, accepting both the credit for and the consequences of putting forth those ideas for dialogue and debate.

A Method of Discovery

If college research assignments don't simply report information on a topic, what do they do? They are organized around what you think—what you believe is important to say about your topic—and there are three ways you can arrive at these ideas:

1. You can know what you think from the start and write a paper that begins with a thesis and provides evidence that proves it.
2. You can have a hunch about what you think and test that hunch against the evidence you collect.
3. You can begin by not knowing what you think—only that you have questions about a topic that really interests you.

Academic inquiry rarely begins with item 1. After all, if you already know the answer, why would you do the research? It's much more likely that what inspires research would be a hunch or a question or both. The motive, as I've said before, is discovery. *The Curious Researcher* promotes a method of discovery that probably isn't familiar to you: essaying.

Essay is a term used so widely to describe school writing that it often doesn't seem to carry much particular meaning. But I have something particular in mind.

The term *essai* was coined by Michel Montaigne, a sixteenth-century Frenchman; in French, it means "to attempt" or "to try." For Montaigne and the essayists who follow his tradition, the essay is less an opportunity to *prove* something than an attempt to *find out.* An essay, at least initially, is often exploratory rather than argumentative, testing the truth of an idea or attempting to discover what might be true. (Montaigne even once had coins minted that said *Que sais-je?*—"What do I know?") The essay is often openly subjective and frequently takes a conversational, even intimate, form.

Now, this probably sounds nothing like any research paper you've ever written. Certainly, the dominant mode of the academic research paper is impersonal and argumentative. But if you consider writing a *research essay* instead of the usual *research paper,* four things might happen:

1. *You'll discover your choice of possible topics suddenly expands.* If you're not limited to arguing a position on a topic, then you can explore any topic that you find puzzling in interesting ways, and you can risk asking questions that might complicate your point of view.
2. *You'll find that you'll approach your topics differently.* You'll be more open to conflicting points of view and perhaps more willing to change your mind about what you think. As one of my students once told me, this is a more honest kind of objectivity.
3. *You'll see a stronger connection between this assignment and the writing you've done all semester.* Research is something all writers do, not a separate activity or genre that exists only on demand. You may discover that research can be a revision strategy for improving essays you wrote earlier in the semester.
4. *You'll find that you can't hide.* The research report often encourages the writer to play a passive role; the research essay doesn't easily tolerate passivity. You'll probably find this both liberating and frustrating. While you may likely welcome the chance to incorporate your opinions, you may find it difficult to add your voice to those of your sources.

As you'll see later in this Introduction, the form a research essay can take may be a bit different from the usual thesis-proof research paper. But even if you write a more conventional (and frankly more common) paper that makes an argument, the method of essaying can help you discover the claims you want to argue.

Firing on Four Cylinders of Information

Whatever the genre, writers write with information. But what kind? There are essentially four sources of information for nonfiction:

1. Memory and experience;
2. Observation;
3. Reading; and
4. Interview.

A particular type of writing may emphasize one source over another. For example, literary analysis obviously leans very heavily on reading. The information largely comes from the text you're studying. A personal essay is often built largely from memory. The research essay, however, is a genre that typically fires on all four cylinders, powered by all four sources of information. For example, for an essay exploring the behavior of sports fans, you may observe the behavior of students at a football game, read critiques of unruly soccer fans at the World Cup or theories about group behavior, and remember your own experience as a fan of the Chicago Cubs (God help you!) when you were growing up.

What makes research writing "authoritative" or convincing is less whether you sound objective than whether you are able to find *varied* and *credible* sources of information to explore your research question. It certainly won't do to write a research essay that, say, only relies on your experiences. This doesn't mean that every good research essay must use all four sources of information, but it certainly should use more than one.

"It's Just My Opinion"

In the end, *you* will become an authority of sorts on your research topic. I know that's hard to believe. One of the things my students often complain about is their struggle to put their opinions in their papers: "I've got all these facts, and sometimes I don't know what to say other than whether I disagree or agree with them." What these students often *seem* to say is that they don't really trust their own authority enough to do much more than state briefly what they feel: "Facts are facts. How can you argue with them?"

Step 2 of Exercise 1, which began this chapter, may have started you thinking about these questions. I hope the research assignment you are about to start keeps you thinking about your beliefs about the nature of knowledge. Are facts unassailable? Or

are they simply claims that can be evaluated like any others? Is the struggle to evaluate conflicting claims an obstacle to doing research, or the point of it? Are experts supposed to know all the answers? What makes one opinion more valid than another? What makes *your* opinion valid?

I hope you write a great essay in the next five or so weeks. But I also hope that the process you follow in doing so inspires you to reflect on how you—and perhaps all of us—come to know what seems to be true. I hope you find yourself doing something you may not have done much before: thinking about thinking.

Facts Don't Kill

When my students comment on a reading and say, "It kinda reads like a research paper," everybody knows what that means: It's dry and it's boring. Most of my students believe that the minute you start having to use facts in your writing, the prose wilts and dies like an unwatered begonia. It's an understandable attitude. There are many examples of dry and wooden informational writing, and among them, unfortunately, may be some textbooks you are asked to read.

But factual writing doesn't have to be dull. You may not consider my essay, "Theories of Intelligence" (see the following exercise), a research paper. It may be unlike any research paper you've imagined. It's personal. It tells stories. Its thesis is at the end rather than at the beginning. And yet, it is prompted by a question—Why is it that for so many years I felt dumb despite evidence to the contrary?—and it uses cited research to explore the answers. "Theories of Intelligence" may not be a model for the kind of research essay you will write—your instructor will give you guidelines on that—but I hope it is a useful model for the kind of thinking you can do about any topic when you start with questions rather than answers.

EXERCISE 2

Reflecting on "Theories of Intelligence"

- Read my essay twice. The first time, don't feel compelled to do anything but read it. The second time, however, I want you to read the piece to identify two kinds of content: writing that seems based on outside sources (the kind of material we normally cite in academic writing) and writing that expresses my own thinking and assertions. A great way to visually distinguish these two types of content is to photocopy the essay from the book and mark each type of content with a different color highlighter.
- *What* do you notice about the pattern and the balance between fact and commentary? *Where* do you see each happening in the essay? *How* do your findings about this pattern between the presence of the research and the research either challenge or confirm your previous beliefs about how "research papers" should be written?

Theories of Intelligence

by Bruce Ballenger

At age 55, I've finally decided I'm not as dumb as I thought. This might seem a strange confession from a professor of English, a man who has spent 25 years making his living with his intellect, working all those years in an environment where being "smart" was a quality valued above all others. This revelation—that I'm not as dumb as I thought—is a relief, of course. More and more, I can sit in a meeting of my colleagues and feel okay when I'm unmoved to speak. It pains me less when I can't quite follow someone's argument or sort out the arcane details of a curriculum proposal. Now, more than ever before, I can stand in front of my classes and say, without shame, "That's a good question. I don't really know the answer."

It's quite possible—no, likely—that I'm not nearly as smart as many of the people around me; but I've learned, at last, not to care. Self-acceptance may simply be one of the few blessings of late middle age. I was watching the news the other day and learned of a report on happiness that suggests the midlife crisis is a universal phenomenon. The study, with the straightforward title "Is Well-Being U-Shaped over the Life Cycle?" reviewed data from two million people in 72 countries, and it concluded that American men are most miserable at around age 52, perhaps because they have the sobering realization that life did not unfold the way they hoped it would. Happiness slowly returns when they "adapt to their strengths and weaknesses, and...quell their infeasible aspirations" (Blanchflower and Oswald 20). It's a great relief for me to know that things should be looking up.

I've considered this idea—that I'm really not that smart but have finally accepted my limitations—but I'm coming around to the belief that I'm probably smarter than I thought I was—that I was *always* smarter than I thought I was. I'm pretty sure this is true for most people and, frankly, the ones who have always known they were really smart—and who behave as if they are quite sure of this—are not the kind of people I usually like very much. Yet even the self-consciously smart people deserve our sympathy because being intelligent really, really matters to most of us. We can live with being unattractive, but no one wants to feel dumb. One of the most popular videos on YouTube is a clip from the Miss Teen USA contest when, during the interview segment of the program, Caitlin Upton, the contestant from South Carolina, was asked this question: "Recent polls have shown that a fifth of Americans can't locate the U.S. on a world map. Why do you think this is?" Her response was, sadly, completely incoherent, and the relentless, often unkind ridicule Upton endured prompted her appearance on the *Today Show* a few days later. "I was overwhelmed," she said. "I made a mistake. Everyone makes mistakes. I'm human" ("Miss Teen on Today"). I'm ashamed to admit that I joined the throngs who gleefully watched the clip and enjoyed Upton's humiliation; at the time, I told myself that my response wasn't personal—it just confirmed my belief that beauty pageants are socially bankrupt. But I know that the real reason I enjoyed it was the relief that it wasn't me up there.

The YouTube clip is now painful for me to watch, not only because the humor in humiliation wears off quickly but also because I recognize in Caitlin Upton a phenomenon I see in myself: We believe that our own intelligence is a script that others author and we cannot revise. Researchers tell us that children typically have one of two theories of intelligence. Some believe that intelligence is an "uncontrollable trait," a thing they are stuck with like eye color or big ears. Others, particularly older children, believe that intelligence is "malleable," something they can alter through effort and hard work (Kinlaw and Kutz-Costes 296). I have never met any of these children, but apparently they're out there.

It is a nearly inescapable fact of American childhood that we are branded as smart or somewhat smart or not too smart or even dumb. For many of us who lack faith in our own intelligence, this branding begins in school, a sad fact that researchers say is especially true of African American kids (Aronson, Fried, and Good 113). I am white, but I can trace my own experience with this by following the scent of old resentments back to memories of school that never lose their bitter taste—even when I try to sweeten them with humor. There was the time in the second grade when I was sent to the back

of the room to sit alone in a corner because I couldn't remember all the months of the year. And later, in the eighth grade, I moved from green to orange in the SRA reading packet but never moved again. In those days orangeness was a sign of mediocrity. The shame of never busting through orange to blue, the color Jeff Brickman, Mark Levy, and Betsy Cochran achieved with ease, convinced me that reading and writing were just not my thing, a feeling that was reinforced by my teacher, Mrs. O'Neal, who spattered my essays with red marks. From then on I hated school and, ironically, especially English (a feeling I freely shared on the inside covers of my class yearbooks). I spent my high school days languishing in "Level 3" English and science classes, where I joined the working-class Italian American students from Highwood and the kids from the army base at Fort Sheridan. We found solidarity in hating Shakespeare, lab reports, and the five-paragraph theme. And we pretended to find solidarity in being dumb, though I think most of us were secretly ashamed.

In my junior year, I dated Jan, one of the "smart" kids who moved in a small herd, migrating from one AP class to another. I was awed by her intelligence, and in the twisted logic of an adolescent male, this awe translated into indifference. I pretended I didn't really care about her. Eventually, however, I found Jan's persistent kindness moving and began to write her bad poetry that she copied and bound into a book that she gave me for my birthday. For a time, I entertained the idea that I wasn't unintelligent. Not smart, exactly—not like Jan—but maybe I could hold my own in the AP crowd. Yet what I did not understand back then was that whatever small gains I was making in school could easily be undone at home.

There was never any question that I would go to college. My parents expected it, and so did I. But I knew that I was not destined to go anywhere Jan and her friends were headed—University of Michigan, Brown, Tufts, Beloit, Kalamazoo. I applied to one school, Drake, with rolling admissions, and when I was accepted early, I excused myself from the endless senior chatter about colleges. I pretended I just didn't care. "You're selling yourself short," my father said, disappointed that I wouldn't pursue more schools. My brother—who was two years older—attended my father's alma mater, the University of Rochester, a school with high academic standards. Dad never encouraged me to apply there, confirming what I had already suspected—that I was a dimmer bulb.

My father was an intelligent man, a Rhodes scholar with an interest in British literature who worked for both Chicago and New York newspapers before the booze took him down. Nothing pleased him more than an argument. When I went to college in the early

seventies it was an easier time for students to believe in values and ideas without being wounded by the charge that they were being "naïve." My idealism made me an easy target, and when the vodka kicked in, my father would pick up the scent of some belief I held with uninformed fervor and go after it. Even drunk, Dad knew what he was talking about, and with a cold, ruthless logic he would pick apart whatever passion I brought to the dinner table. I felt young, stupid, and hopelessly inadequate. Dad was not a cruel man; what I know now is that his head may have been full, but his heart was empty. His intellect was one of the last things he clung to as drink became the only way to dull some unspeakable pain; in the end, of course, even intellect succumbs.

There were moments after these arguments when I sat seething and my father would turn to me, wagging his finger. "The most important thing you can be, Bruce," he said, "is an intellectual. Live the life of the mind." Oddly enough, I have become an academic, and, had he lived, my father would likely have approved. Yet the ache I feel about Dad these days is that he didn't possess the kind of knowing that might have saved him had he only valued it. One of the things my Dad's alcoholism taught me was how weak-kneed his kind of intelligence could be against the sucker punches of self-loathing. "Your Dad was just too smart for his own good," my mother would say. "Just too smart for his own good."

Theories of intelligence have evolved considerably since I was a child, a time when everyone was taking IQ tests. In the early eighties, Howard Gardener's "multiple intelligences" came as a relief to many of us whose scores on intelligence tests were not worth bragging about. Back then, I never really understood Gardener's theory but seized on the idea that being smart didn't necessarily mean being smart in one way. More recently, in response to his own bad experiences being labeled dumb in school, intelligence expert Robert Sternberg offered a "Triachic Theory of Successful Intelligence." Being smart, he said, isn't just being analytical but being creative and practical, too. Strength in one can compensate for weakness in the other two ("Robert J. Sternberg"). Yet I always sensed that, no matter what Gardener or Sternberg said, there was a kind of intelligence that really counted and that I didn't possess. It was school smarts—the ability to pick apart an argument, to recognize the logical fallacy, and to make an arresting point—all of the things, I see now, that my father could do so well. As an academic, I see these qualities in some of my colleagues, whom I admire and envy. A very few of them, however, use their intelligence to bully people like my father bullied me.

Before I entered the profession, I imagined that many professors were like these intellectual bullies, people who bludgeon others with reason, looking to wound rather than to enlighten. The literary critic Jane Tompkins once wrote that college teachers are often driven by fear, "fear of being shown up for what you are: a fraud, stupid, ignorant, a clod, a dolt, a sap, a weakling, someone who can't cut the mustard" (654), and this is what drives us to do everything we can to prove to our students and others that we're intellectually superior. In rare cases, this fear of being found out turns teachers into intellectual bullies. More often, their anxiety in the classroom leads to what Tompkins calls the "performance model" of instruction: teachers talking at their students, teachers trying desperately to demonstrate how smart they are. It probably is no surprise that this tendency moves easily from the classroom to the department faculty meeting where the stakes feel higher.

I can't recall exactly how things began to change for me, when I started to see that I might revise the script that had governed my life for so long, but I started to notice it in those department meetings. Whether I spoke or not ceased to matter. I didn't decide one day that I was just as smart as my colleagues. I didn't suddenly start believing the strong evidence that I must have some intellectual ability because I enjoyed a successful career as a college professor. There was no sudden epiphany or dramatic moment. I think I just stopped being afraid.

It has helped to know, too, that my own ideas about intelligence don't travel well. In a famous study, developmental psychologist Joseph Glick asked a Liberian Kpelle tribesman to sort 20 items—food, tools, and cooking utensils—in a way that made "sense" to him. He did this quickly enough, pairing a knife with an orange, a potato with a hoe, and other matches that reflected the practical, functional relationships between the items. "This is what a wise man would do," said the tribesman. The researchers then asked, "What would a fool do?" The Liberian then sorted the items in what we would consider "logical" categories, putting food in one pile, cooking utensils in another, tools in another, and so on (Cole, Gay, Glick, and Sharp 84–87). I live a world away, of course, where as I write this my wife, Karen, is putting away the groceries using a logic that a Kpelle tribesman might find curious. The definition of a fool, obviously, depends on who and where you are.

My self-doubts will never go away completely, but I think they have made me a better teacher. I have empathy for my own students in whom I see the same struggle. Just the other night in a graduate seminar, Greg, a particularly bright student, derailed himself

in midsentence while interpreting a passage from a Montaigne essay we were reading. "My head just isn't working tonight," he said. "I don't know what's wrong with me." I reassured him that he was making perfect sense, but for the rest of the class Greg was solemn, his hand fixed on his forehead, concealing a brow darkened by frustration. Ironically, Montaigne, a sixteenth-century philosopher and father of the personal essay, constantly questioned his own intelligence, and in the piece we were reading that night Montaigne writes that his "mind is lazy and not keen; it can not pierce the least cloud" (213). And yet, Montaigne's work celebrated his shortcomings as well as his strengths, the very things that make us human. Learning's highest calling, he thought, was to know oneself, and the essay seemed the best vessel into which this self-reflection might be poured, as I have done here.

On the advice of a friend, I recently took up meditation, a practice that often involves visualization. Sometimes as I listen to the slow rhythm of my breathing, there are moments when I meet myself on a beach on Nantucket Island, a place I spent a spring nearly 30 years ago. There are just the two of us there—one young version of myself, with a navy blue beret and his hands thrust in the pockets of his khaki pants, and the other the grayer, bearded man I see in the mirror these days. I am walking with that younger self on the empty beach at sunset, and I have my arm around his shoulders. I am whispering something to him meant to be comforting. I might be saying many things, but lately I imagine it is this: "You're going to be okay." I think that learning to fully believe this will be the smartest thing I'll ever do.

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Creative Research Papers?

Question: How often will I get to write a research paper like "Theories of Intelligence?"

Answer: Not often.

Question: So why should I write one now?

Answer: Because writing a research *essay,* one that also uses some of the conventions of academic writing like citation, is a great introduction to the essentials of academic inquiry. These essentials include the following:

1. In the beginning, at least, the motive behind nearly any kind of research is to answer questions or solve a problem. The research rests on a simple hope: discovery. You write about the doubts about intelligence or the habits of a housefly or the motives of a terrorist because you want to find out something. Formal academic writing shares this motive, too, but it's less apparent in the product, which focuses mostly on the persuasiveness of its conclusions. In the research essay, the process of discovery is often a visible part of the product.
2. The purpose of research writing is not simply to show readers what you know. It is an effort to *extend a conversation about a topic* that is ongoing, a conversation that includes voices of people who have already spoken, often in different contexts and perhaps never together. Research writers begin with their own questions and then find the voices that speak to them. They then write about what others have helped them to understand. This experience of entering into a conversation with sources is much more likely when you are visibly part of it, even if this means using the first person.
3. Normally, when we write conventional research papers we have a very narrow conception of audience: the teacher. In a sense, we tend to write *up* to the instructor because she knows more

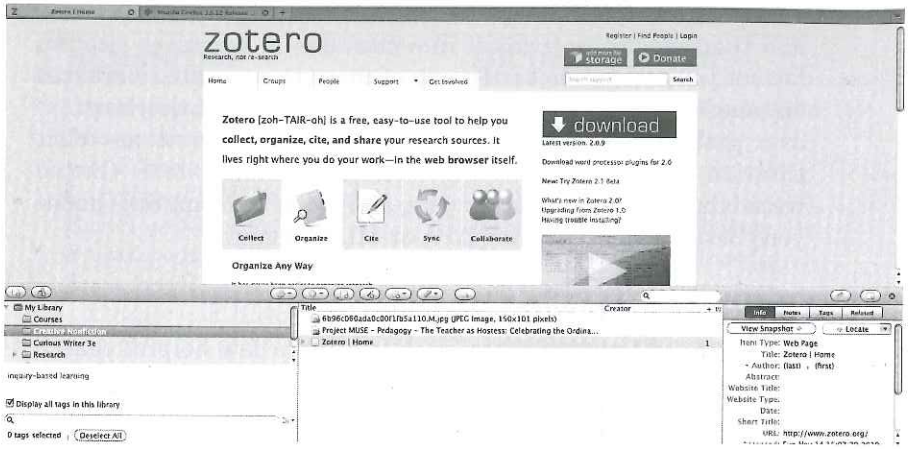

FIGURE 1.2 Zotero

Narrowing the Subject

It never occurred to me that photography and writing had anything in common until I found myself wandering around a lonely beach one March afternoon with a camera around my neck. I had a fresh roll of film (it was that long ago) and, full of ambition, I set out to take beautiful pictures. Three hours later, I had taken only three shots, and I was definitely not having fun. Before quitting in disgust, I spent 20 minutes trying to take a single picture of a lighthouse. I stood there, feet planted in the sand, repeatedly bringing the camera to my face; but each time I looked through the viewfinder, I saw a picture I was sure I'd seen before, immortalized on a postcard in the gift shop down the road. Suddenly, photography lost its appeal.

A few months later, a student sat in my office complaining that he didn't have anything to write about. "I thought about writing an essay on what it was like going home for the first time last weekend," he said. "But I thought that everyone probably writes about that in freshman English." I looked at him and thought about lighthouse pictures.

Circling the Lighthouse

Almost every subject you will choose to write about for this class and for this research paper has been written about before. The challenge is not to find a unique topic (save that for your doctoral dissertation) but to find an angle on a familiar topic that helps readers to see what they probably haven't noticed before. For example, once in a research essay titled "The Bothersome Beauty of Pigeons," I wrote about the most common of subjects—the urban pigeon—and took a close look at its habits and behaviors, finding in them an explanation for my conflicted feelings about "pests" that are inconveniently attractive.

I now know that it was a mistake to give up on the lighthouse. The problem with my lighthouse picture, as well as with my student's proposed essay on going home, was not the subject. It was that neither of us had yet found our own angle. I needed to keep looking, walking around the lighthouse, taking lots of shots until I found one that surprised me, that helped me see the lighthouse in a new way, in *my* way. Instead, I stayed put, stuck on the long shot and the belief that I couldn't do better than a postcard photograph.

It is generally true that when we first look at something, we mostly see its obvious features. That became apparent when I asked my freshman English class one year to go out and take pictures of anything they wanted. Several students came back with single photographs of Thompson Hall, a beautiful brick building on campus. Coincidentally, all were taken from the same angle and distance—straight on and across the street—which is the same shot that appears in the college recruiting catalog. For the next assignment, I asked my students to take multiple shots of a single subject, varying angle and distance. Several students went back to Thompson Hall and discovered a building they'd never seen before, though they walked by it every day. Students took abstract shots of the pattern of brickwork, unsettling shots of the clock tower looming above, and arresting shots of wrought iron fire escapes, clinging in a tangle to the wall.

The closer students got to their subjects, the more they began to see what they had never noticed before. The same is true in writing. As you move in for a closer look at some aspect of a larger subject, you will begin to uncover information that you—and ultimately your readers—are likely to find less familiar and more interesting. One writing phrase for this is *narrowing your subject.* (The photographic equivalent would be *varying distance from the subject.*)

From Landscape Shots to Close-ups

The research reports many of us wrote in high school typically mimicked landscape photography. We tried to cram into one

picture as much information as we could. A research report is a long shot. The college research essay is much more of a close-up, which calls for narrowing the boundaries of a topic as much as you can, always working for a more detailed look at some smaller part of the landscape.

You are probably not a photographer, and finding a narrow focus and fresh angle on your research topic is not nearly as simple as it might be if this were a photography exercise. But the idea is the same. You need to see your topic in as many ways as you can, hunting for the angle that most interests you; then go in for a closer look. One way to find your *focus* is to find your *questions*.

Other Ways to Narrow Your Subject

1. **Time.** Limit the time frame of your project. Instead of researching the entire Civil War, limit your search to the month or year when the most decisive battles occurred.
2. **Place.** Anchor a larger subject to a particular location. Instead of exploring "senioritis" at American high schools, research the phenomenon at the local high school.
3. **Person.** Use the particulars of a person to reveal generalities about the group. Instead of writing about the homeless problem, write about a homeless man.
4. **Story.** Ground a larger story in the specifics of a "smaller" one. Don't write about dream interpretation, write about a dream *you* had and use the theories to analyze it.

EXERCISE 1.3

Finding the Questions

Although you can do this exercise on your own, your instructor will likely ask that you do it in class this week. That way, students can help one another. (If you do try this on your own, only do Steps 3 and 4 in your research notebook.)

STEP 1: Post a large piece of paper or newsprint on the wall. (In a classroom with computers you can do this exercise in an open Word document.) At the very top of the paper, write the title of your tentative topic (e.g., "Plastics in the Ocean").

STEP 2: Take a few minutes to briefly describe why you chose the topic.

STEP 3: Spend five minutes or so briefly listing what you know about your topic already. This is information you harvested this week from your effort to develop working knowledge on your proposed topic. You might list any surprising facts or statistics, the extent of the problem, important people or institutions involved, key schools of thought, common misconceptions, observations you've made, important trends, major controversies, and so on.

STEP 4: Now spend 15 or 20 minutes brainstorming a list of questions *about your topic* that you'd like to answer through your research. Make this list as long as you can; try to see your topic in as many ways as possible. Push yourself on this; it's the most important step.

STEP 5: As you look around the room, you'll see a gallery of topics and questions on the walls. At this point in the research process, almost everyone will be struggling to find a focus. You can help one another. Move around the room, reviewing the topics and questions other students have generated. For each topic posted on the wall, do two things: Add a question *you* would like answered about that topic that's not on the list, and check the *one* question on the list you find most interesting. (It may or may not be the one you added.)

If you do this exercise in class, note the question about your topic that garnered the most interest. This may not be the one that interests you the most, and you may choose to ignore it altogether. But it is helpful to get some idea of what typical readers might want most to know about your topic.

You also might be surprised by the rich variety of topics other students have tentatively chosen for their research projects. The last time I did this exercise, I had students propose papers on controversial issues such as the use of dolphins in warfare, homelessness, the controversy over abolishment of fraternities, legalization of marijuana, and censorship of music. Other students proposed somewhat more personal issues, such as growing up with an alcoholic father, date rape, women in abusive relationships, and the effects of divorce on children. Still other students wanted to learn about historical subjects, including the role of Emperor Hirohito in World War II, the student movement in the 1960s, and the Lizzie Borden murder case. A few students chose topics that were local. For example, one student recently researched the plight of nineteenth-century

Chinese miners digging for gold in the mountains just outside of Boise. Another did an investigation of skateboard culture in town, a project that involved field observation, interviews, as well as library research.

Crafting Your Opening Inquiry Question

What do you do with the gazillion questions you've generated on your research topic? Throw most of them away. But not yet! If you look carefully at the list of questions you (and your peers) generated in Exercise 1.3, you will likely see patterns. Some of your questions will clump together in more general categories. Perhaps a group of questions is related to the history of your topic, trends, processes, local relevance, and so on. Look for these patterns, and especially questions that might be combined or that inspire new questions.

Your work this week will culminate in the crafting of a tentative inquiry question that will guide your research and writing next week. This question will constantly evolve as you learn more; but for now, create the one question around which you will launch your project. Among the most common types of inquiry questions are sense-making questions, hypothesis-testing questions, and relationship-analyzing questions (see Table 1.1). Don't worry too much about the distinctions between question types; for one thing, they overlap quite a bit. But these categories should help you see some of the kinds of questions you might ask about your topic.

As the name implies, *sense-making questions* arise when we are searching for an explanation (think CSI or Sherlock Holmes). Why

TABLE 1.1 Types of Inquiry Questions

Sense-Making	Hypothesis-Testing	Relationship-Analyzing
Why might this be true or not true?	Is this evidence for or against the idea of _____?	What is the relationship between _____ and _____?
What might explain _____?	Is my assumption about _____ true?	Does _____ cause _____?
	Is it true that _____?	Is _____ similar to _____?

does one dog trainer see "correction" in a way that conflicts with the way another dog trainer sees it?

Frequently, we have hunches about what might be true. *Hypothesis-testing questions* test these assumptions. These are ideas that often emerge when we ask a bunch of sense-making questions; for instance, some preliminary research on the conflicts between dog trainers on the issue of correction suggests that the debate is related to assumptions about whether domestic dogs respond like wild canines—wolves, coyotes, and the like. A hypothesis-testing question might be something like this: Is it true that the often-bitter debates between dog trainers about the best approach to correction is based on assumptions about the links between wild dogs and domestic ones?

Finally, *relationship-analyzing questions* are among the most common types of inquiry questions. Most questions researchers explore have to do with trying to figure out whether one thing causes another thing or whether one thing is like or unlike something else. For example, does painful correction destroy the bond between a dog and its owner?

EXERCISE 1.4

Finding the Inquiry Question

Review the questions you or your class generated in Exercise 1.3, steps 4 and 5, and ask yourself, Which questions on the list am I most interested in that could be the focus of my paper? Remember, you're not committing yourself yet.

Using one or more of the templates suggested in Table 1.1, craft several research questions that seem to capture what most interests you in the topic. For example,

- What might explain the rise of recruiting violations in the NCAA?
- What is the connection between having anorexia and the anorexic's relationship with her father?
- Is it true that the major climate change denial organizations are funded by special interests that oppose cap-and-trade legislation?
- Is risk-based behavior in extreme sports caused by a certain personality type?