CHAPTER THREE

From Topics to Questions

In this chapter we discuss how to explore your interests to find a topic, narrow it to a manageable scope, question it to find the makings of a problem, then turn it into a problem that guides your research. If you are an experienced researcher or already know what topics you want to pursue and why, you might skip to chapter 4. But if you are starting your first project, you will find this chapter useful.

If you are free to research any topic that interests you, that freedom can be frustrating—so many choices, so little time. At some point, you have to settle on a topic, but beyond a topic, you also have to find a reason beyond your assignment to devote weeks or months pursuing it and writing up what you find, then to ask readers to spend their time reading your report.

As we've said, your readers expect you to do more than just mound up and report data; they expect you to report it in a way that continues the ongoing conversation between writers and readers that creates a *community* of researchers. To do that, you must select from all the data you find just those data that support an answer to a question that solves a problem your readers think needs solving. In all research communities, some problems are already "in the air," widely debated and deeply researched, such as whether personality traits like shyness or an attraction to risk are genetically inherited or learned. But other questions may intrigue only the researcher: *Why do cats rub their faces against us? Why do the big nuts end up at the top of the can?* That's how a lot of research begins—not with a "big" question known to everyone in a field, but with a mental itch that only one researcher feels the need to scratch.

If you have such an itch, good. But as we've said (and will say

again), at some point, you have to decide whether the answer to your private question is also significant to others: to a teacher, colleagues, other researchers, or even to a public whose lives your research could change. At that point, you aim not just to answer a question, but to pose and solve a *problem* that others also think is worth solving.

Now that word *problem* is itself a problem: commonly, a problem means trouble, but among researchers it has a meaning so special that we devote all of the next chapter to it. It raises issues that few beginning researchers are able to resolve entirely and that can vex even advanced ones. But before you can address a research problem, you have to find a topic that might lead to one. We'll start there, with finding a topic.

3.1 FROM AN INTEREST TO A TOPIC

Most of us have more than enough interests to pursue, but beginners often find it hard to locate among theirs a topic focused enough to support a research project. A research topic is an interest defined narrowly enough for you to imagine becoming a local expert on it. That doesn't mean that you already know a lot about it or that you will have to learn more about it than your professor has. You just want to know more than you do now.

If your assignment leaves you free to explore any topic within reason, we can offer only a cliché: Start with what interests you most deeply. Nothing contributes to the quality of your work more than your commitment to it. Start by listing two or three interests that you'd like to explore. If you are undertaking a research project in a course in a specific field, skim a recent textbook, talk to other students, or consult your teacher. You might try to identify an interest based on work you are doing or will do in a different course.

If you are still stuck, you can find help either on the Internet or in your library. The Internet may seem the easier way, but it's more likely to lead you astray, especially if you are new to research. Start with the standard guides:

- For a project in a general writing course, start in the library. Look at the headings in a general bibliography such as the *Reader's Guide to Periodical Literature*. If you already have a general focus, use more specialized guides such as the *American Humanities Index* or the *Chicano Index*. (We discuss using these resources in chapter 5 and list many of them on pp. 298–315.)

Scan headings for topics that catch your interest. They will provide not only possible topics, but up-to-date references on them. If you already have an idea for a topic, you can check out the Internet, but if you have no idea what you are looking for, what you find there may overwhelm you. Some indexes are available online, but most don't let you skim only subject headings.

- For a first research project in a particular field, skim headings in specialized indexes, such as the *Philosopher's Index,* the *Psychological Abstracts,* or *Women's Studies Abstracts*.

Once you identify a general area of interest, use the Internet to find out more about it and to help you narrow your topic. (If you are really stuck, see the Quick Tip at the end of this chapter.)

- If you are doing an advanced research project, you might look first for what resources are easily available *before* you settle on a topic.

If you pick a topic and then discover that sources are hard to find, you may have to start over. If you *first* identify resources available in your library or on the Internet, you can plan your research more efficiently, because you will know where to start.

At first, you may not know enough about a general interest like *the use of masks in religious and social contexts* to turn it into a focused topic. If so, you have to do some reading to know what to think about it. Don't read randomly: start with entries in a general encyclopedia, then look at entries in a specialized encyclopedia or dictionary, then browse through journals and web-

sites until you have a grip on the general shape of your topic. Only then will you be able to move on to these next steps.

3.2 FROM A BROAD TOPIC TO A FOCUSED ONE

At this point, you risk settling on a topic so broad that it could be a subheading in an encyclopedia: *Space flight, history of; Shakespeare, problem plays; Natural kinds, doctrine of.* A topic is usually too broad if you can state it in four or five words:

Free will in *War and Peace*	The history of commercial aviation

With a topic so broad, you may be intimidated by the idea of finding, much less reading, even a fraction of the sources available. So you have to narrow it, like this:

Free will in *War and Peace*	→	The conflict of free will and historical inevitability in Tolstoy's description of three battles in *War and Peace*
The history of commercial aviation	→	The crucial contribution of the military in the development of the DC-3 in the early years of commercial aviation

We narrowed those topics by adding words and phrases, but of a special kind: *conflict, description, contribution,* and *development.* Those nouns are derived from verbs expressing actions or relationships: *to conflict, to describe, to contribute,* and *to develop.* Without such words, your topic is a static thing—*free will in War and Peace, the history of commercial aviation.* But when you use nouns derived from verbs, you move your topic a step closer to a *claim* that your readers might find significant.

Note what happens when these topics become statements. Topics (1a) and (2a) change almost not at all:

TOPIC		CLAIM
1a. Free will and historical inevitability in Tolstoy's *War and Peace*?	→	There is free will and historical inevitability in Tolstoy's *War and Peace*.
2a. The history of commercial aviation	→	Commercial aviation has a history.

Topics (1b) and (2b), on the other hand, are closer to claims that a reader might find interesting:

1b. The *conflict* of free will and historical inevitability in Tolstoy's *description* of three battles in *War and Peace*	→	*In War and Peace,* Tolstoy *describes* three battles in a way that makes free will *conflict* with historical inevitability.
2b. The *crucial contribution* of the military in the *development* of the DC-3 in the early years of commercial aviation	→	In the early years of commercial aviation, the military *crucially contributed* to the way the DC-3 *developed*.

Such claims will at first seem weak, but you will develop them into more specific ones as you develop your project.

A more specific topic also helps you see gaps, puzzles, and inconsistencies that you can ask about when you turn your *topic* into a research *question* (more about that in a moment). A specific topic can also serve as your working title, a short answer when someone asks you what you are working on.

Caution: Don't narrow your topic so much that you can't find enough data on it:

TOO MANY DATA AVAILABLE	TOO FEW DATA AVAILABLE
The history of commercial aviation	The decision to lengthen the wingtips on the DC-3 prototype because the military wanted to use the DC-3 as a cargo carrier

3.3 FROM A FOCUSED TOPIC TO QUESTIONS

In taking this next step, researchers often make a beginner's mistake: they rush from a topic to a data dump. Once they hit on a topic that feels promising, something like *the political origins and uses of legends about the Battle of the Alamo,* they go straight to searching out sources—different versions of the story in books and films, Mexican and American, nineteenth century and twentieth. They accumulate a mound of summaries of the stories, descriptions of their differences and similarities, ways in which they conflict with what modern historians think happened. They write all that up and conclude, "Thus we see many interesting differences and similarities between . . ."

Most high school teachers would give such a report a passing grade, because it shows that the student can focus on a topic, find data on it, and assemble those data into a report—no small achievement for a first project. But in any advanced course, including a first-year writing course in college, such a report falls short because it offers only random bits of information. If the writer asks no *question* worth pondering, he can offer no focused answer worth reading. Readers of research reports don't want just information; they want the answer to a question worth asking. To be sure, those fascinated by a topic often feel that *any* information about it is worth reading for its own sake: collectors of Japanese coins or Elvis Presley movie posters will read anything about them. Serious researchers, however, do not report data for their own sake, but to support the answer to a question that they (and they hope their readers) think is worth asking.

The best way to find out what you do not know about a topic is to barrage it with questions. First ask the predictable ones of your field. For example, a historian's first questions about the Alamo stories would concern their sources, development, and accuracy. Also ask the standard journalistic questions *who, what, when,* and *where,* but focus on *how* and *why*. Finally, you can systematically ask four kinds of analytical questions, about the composition, history, categorization, and values of your topic. Record the questions, but don't stop for answers. (And don't worry about fitting the questions into the right categories; use the categories only to stimulate you to ask them and to organize their answers.)

3.3.1 Identify the Parts and How They Interrelate

- What are the parts of your topic, and how do they relate to one another?

  In stories about the Alamo, what are the themes, the plot structure, the main characters? How do the characters relate to the plot, the plot to the actual battle, the battle to the characters, the characters to one another?

- How is your topic part of a larger system?

  How have politicians used the story? What role does it have in Mexican history? What role does it have in U.S. history? Who told the stories? Who listened? How does their nationality affect the story?

3.3.2 Trace Its Own History and Its Role in a Larger History

- How and why has your topic changed through time, as something with its own history?

  How have the stories developed? How have different stories developed differently? How have audiences changed? How have the storytellers changed? How have their motives to tell the stories changed?

- How and why is your topic an episode in a larger history?

  How do the stories fit into a historical sequence of events? What caused them to change? How did they affect national identity in the United States? In Mexico? Why have they endured so long?

3.3.3 Identify Its Characteristics and the Categories that Include It

- What kind of thing is your topic? What is its range of variation? How are instances of it similar to and different from one another?

  What is the most typical story? How do others differ? Which is most different? How do the written and oral stories differ from the movie versions? How are Mexican stories different from those told in the States?

- To what larger categories can your topic be assigned? How does that help us understand it?

  What other stories in U.S. history are like the story of the Battle of the Alamo? In Mexican history? How do the stories compare to other mythic battle stories? What other societies produce similar stories?

3.3.4 Determine Its Value

- What values does your topic reflect? What values does it support? Contradict?

  What moral lesson does the story teach, if any? Whose purposes does each story serve? Who is praised? Who blamed? Why?

- How good or bad is your topic? Is it useful?

  Are some stories better than others? More sophisticated than others? What version is the best one? The worst one? Which parts are most accurate? Which least?

3.3.5 Evaluate Your Questions

When you run out of questions (or think, *Enough!*), it's time to evaluate them. First, set aside questions whose answers you could look up in a reference work. Questions that ask *who, what, when,* or *where* are important, but they may ask only about matters of settled fact (though not always). Questions that ask *how* and *why* are more likely to invite deeper research and lead to more interesting answers.

Next, try to combine smaller questions into larger, more significant ones. For example, several Alamo questions revolve around the issue of the interests of the storytellers and their effects on the stories:

> How have politicians used the story? What role does it have in U.S. history? How have the storytellers changed? How have their motives to tell the stories changed? How did the stories affect national identity in the United States? How do the stories compare to other mythic battle stories? Is its moral lesson worth teaching? Whose purposes does each story serve?

Many of these can be combined into a larger, more significant question:

> How and why have tellers of the Alamo story given a mythic quality to the event?

Once you settle on a question or two, you have a guide to doing your research more systematically. A question narrows your search to only those data you need for its answer. And once you have an answer you think you can support, you know it's time to stop hunting. But when you have only a topic, the data you can find on it are, literally, endless; worse, you will never know when you have enough.

Through all this, though, the most important goal is to find questions that challenge you or, better, arouse your intense curiosity. Of course, you can't be sure where any particular question will lead, but this kind of questioning can send you in directions

you never imagined, opening you up to new interests, new worlds of research. Finding good questions is an essential step in any project that goes beyond fact-grubbing. With one or two in mind, you are ready for the next steps.

3.4 FROM A MERELY INTERESTING QUESTION TO ITS WIDER SIGNIFICANCE

Even if you are an experienced researcher, you might not be able to take this next step until you are well into your project. If you are a beginner, you may feel that this step is still deeply frustrating even when you've finished it. Nevertheless, once you have a question that grabs your interest, you must pose a tougher question: *Why should this question also grab my readers? What makes it worth asking?*

Start by asking, *So what?* At first, ask it for yourself:

> So what if I don't know or understand how snow geese know where to go in the winter, or how fifteenth-century violin players tuned their instruments, or why the Alamo story has become myth? So what if I can't answer those questions?

Eventually, you will have to answer this question not just for yourself but for your readers. Finding its answer vexes all researchers, beginners and experienced alike, because it's so hard to predict what will really interest readers. Instead of trying to answer instantly, though, you can work toward an answer in three steps.

3.4.1 Step 1: Name Your Topic

If you are just beginning a project, with only a topic and maybe the glimmerings of a few good questions, describe your topic in a sentence as specific as you can make it (glance back at pp. 43–45):

> I am trying to learn about (working on, studying) _____.

Fill in the blank with your topic. Be sure to use some of those nouns based on verbs or adjectives:

I am studying *diagnostic processes* in the *repair* of cooling systems.

I am working on Lincoln's *beliefs* about *predestination* in his early speeches.

3.4.2 Step 2: Add a Question

As soon as you can, add to that sentence an indirect question that specifies something that you do not know or understand about your topic but want to:

1. *I am studying X*
   2. *because I want to find out* who/what/when/where/whether/why/how _____.

1. *I am studying* diagnostic processes in the repair of cooling systems
   2. *because I am trying to find out how* expert repairers diagnose failures.

1. *I am working on* Lincoln's beliefs about predestination in his early speeches
   2. *because I want to find out how* his belief in destiny influenced his understanding of the causes of the Civil War.

When you add that *because-I-want-to-find-out-how/why* clause, you state why you are pursuing your topic: to answer a question important to you.

If you are doing one of your first research projects and you get this far, congratulate yourself, because you have framed your project in a way that moves it beyond the kind of aimless collection and reporting of data that afflicts too much research. But now go one step more, if you can.

3.4.3 Step 3: Motivate Your Question

This step is a hard one, but it lets you know whether your question is not just interesting to you but possibly significant to others. To do that, add another indirect question, a bigger and more general one that explains why you are asking your first question.

Introduce this second implied question with *in order to help my reader understand how, why,* or *whether:*

1. *I am studying* diagnostic processes in the repair of cooling systems
    2. *because I am trying to find out how* expert repairers analyze failures,
        3. *in order to help my reader understand how* to design a computerized system that can diagnose and prevent failures.

1. *I am working on* Lincoln's beliefs about predestination in his early speeches
    2. *because I want to find out how* his belief in destiny and God's will influenced his understanding of the causes of the Civil War,
        3. *in order to help my reader understand how* his religious beliefs may have influenced his military decisions.

It's your answer to the third step that will give you a claim on your readers' interest. If that larger question touches on issues important to your field, even indirectly, then you have reason to think that your readers should care about its answer, and so care about your answer to the smaller, prior question you raise in step 2.

A few researchers can flesh out this whole pattern even before they start gathering data, because they are working on a well-known question, some widely investigated problem that others in their field are already interested in. In fact, advanced researchers often begin their research with questions that others have asked before but not answered thoroughly, or maybe even correctly. But many researchers, including at times the three of us, find that they can't flesh out these steps until they're nearly finished. And too many write up their research results without having thought through these steps at all.

At the beginning of your project, you may not be able to get past the first step of naming your topic. But regularly test your progress by asking a roommate, relative, or friend to *force* you to

question your topic and to flesh out those three steps. Even if you can't take them all confidently, you'll know where you are and where you still have to go.

To summarize: Your aim is to explain

1. what you are writing about—your topic: *I am studying . . .*
2. what you don't know about it—your question: *because I want to find out . . .*
3. why you want your reader to know about it—your rationale: *in order to help my reader understand better . . .*

If you are just beginning serious research, don't be discouraged if you never get past that second step. As long as your question is interesting to *you,* plow ahead. Your teacher should be satisfied, because you have changed the terms of your project from simply gathering data to asking and answering a question.

If you are a graduate student doing advanced research, however, you *must* take that last step, because answering that last question will help you create the relationship you are working to establish with the rest of your research community. It's your ticket into the conversation.

In the following chapters, we will return to those three steps and their implied questions, because as you'll see, they are crucial not just for finding good specific questions that you want to answer, but for finding and then expressing the problem that you want your readers to recognize and value.

Finding Topics

If you have experience in your field but are stuck for a topic, you can find one with some quick research. Read recent articles and review essays and, if they are available, recent dissertations. Look closely at the conclusions: they often suggest further lines of research. You can also browse the archives of an Internet discussion list in your field: look for points of current controversy.

But if you are a beginner and your teacher has not suggested specific topics, start with our suggestions about skimming bibliographical guides (pp. 298–315). If you still draw a blank, try these steps.

FOR GENERAL TOPICS

1. What special interest do you have—sailing, chess, finches, old comic books? The less common, the better. Investigate something about it you don't know: its origins, its technology, how it is practiced in another culture, and so on.

2. Where would you like to go? Surf the Internet, finding out all you can about it. What particular aspect surprises you or makes you want to know more?

3. Wander through a museum with exhibitions that appeal to you—artworks, dinosaurs, automobiles. If you can't get there in person, browse a "virtual museum" on the Internet. Stop when something catches your interest. What more do you want to know about it?

4. Wander through a shopping mall or store, asking yourself, *How do they make that?* or, *I wonder who thought up that product?*

5. Leaf through a Sunday newspaper, especially its features sections, until something catches your eye. Skim reviews of books or movies, in newspapers or on the Internet.

6. Browse a large magazine rack. Look for trade magazines or those that cater to specialized interests. Investigate whatever catches your interest.

7. If you can use an Internet newsreader, look through the list of "alt" newsgroups until you find one that sounds interesting. Read the posts, looking for something that surprises you or that you disagree with.

8. Tune into talk radio or interview programs on TV until you hear a claim you disagree with. Or find something to disagree with on the websites connected with well-known talk shows. See whether you can make a real case to refute it, instead of just shouting back.

9. Use an Internet search engine to find websites about something people collect. (Narrow the search to exclude dot-com sites.) You'll get hundreds of hits, but look only at the ones that surprise you.

10. Is there a common belief that you suspect is much too simplistic, or just plain wrong? Or a common practice that you detest? Don't just pronounce the belief or practice wrong, but instead probe for something you can show about it that might lead others to reconsider.

FOR TOPICS FOCUSED ON A PARTICULAR FIELD

1. Browse through a textbook of a course that is one level beyond yours or a course that you know you will have to take some time in the future. Look especially hard at the study questions.

2. Attend a lecture for an advanced class in your field and listen for something you disagree with, don't understand, or want to know more about.

3. Ask your instructor about the most contested issue in your field.

4. Find an Internet discussion list in your field. Browse its archives, looking for matters of controversy or uncertainty.
5. Surf the websites of departments at major universities, including class websites. Also check sites of museums, national associations, and government agencies, if they seem relevant.

CHAPTER FOUR

From Questions to Problems

In this chapter we explain how to frame your project as a problem that readers want to see solved, an essential step for advanced researchers. If you are attempting your first research project, this chapter may prove difficult. (You can find more help on problems in our discussion of introductions in chapter 14.) If you feel lost, you can skip to chapter 5, but we hope that you will stay with it. You'll learn important steps you can take now, and will certainly need in the future.

In the last chapter, we described how to find a topic in your interests, how to narrow it, then to question it. We suggested that you identify the significance of your questions by fleshing out this three-step formula:

1. **Topic:** I am studying _____
2. **Question:** because I want to find out what/why/how _____,
3. **Significance:** in order to help my reader understand _____.

These steps describe not only the development of your project, but your own as a researcher.

When you move from step 1 to 2, you stop being a mere data collector, because you are now motivated not by aimless curiosity (by no means a useless impulse), but by a desire to understand something better. That second step also helps you develop an increasingly sophisticated relationship with your readers. When you move from step 2 to 3, you focus your project on the significance of that understanding, at least for yourself. But you can join a *community* of researchers only when you can see that significance from your readers' point of view. With that last step, you change your intention from merely discovering and understanding something for yourself to *showing* and *explaining* some-