To create your preproposal, take a look at the key pieces that you know you want in your dissertation that you identified in the conceptual conversation. These key pieces might be a variety of things—theories you want to use or ideas about how you might like to collect or analyze data, for example. Have you identified your research question and data as part of the key pieces? If you haven't identified one or both of these—the research question and the data—now is the time to turn your attention to these two decisions. If you have formulated your research question, you still want to turn your attention to it—not to develop it but to assess it. We'll start at the beginning of the process of developing a research question, and you can join in at whatever point is appropriate for where you are in the process.

Formulating Your Research Question

The research question is what you are trying to find out by doing your study. It guides your research process, tells you what to look at and what to ignore, and is captured in the title of your dissertation. As a result of your conceptual conversation, you might already have a question that you want to ask in your study that is quite close to what your actual research question will be. What is more likely, though, is that you have several key pieces of your dissertation figured out but not the research question. That's because the research question is the most important part of the dissertation and takes the most effort and care to develop.

If you don't have a question that could turn into your research question, how do you get one? One of the easiest ways is to review the key pieces you identified that you would like in your dissertation and to ask how they might be connected to various theoretical conversations in your field. If you know you are interested in dealing with Paolo Freire's ideas, for example, you might identify as relevant theoretical conversations liberatory pedagogy and online pedagogy. Brainstorm possible questions that allow you to use the key pieces you have identified for your dissertation and connect them to constructs or phenomena that are part of these theoretical conversations. Write down all of the questions that you (and your partner, if she is still involved) suggest, even if you know they are not questions you would want for your study. By writing them down, you can see how to build on them, how to combine them, and how to mold a question from them that captures your interests.

Criteria for a Good Research Question

What are you aiming for as you create a question for your dissertation? A good research question meets six criteria. The first criterion for a good research question is that it *clearly identifies the theoretical construct* you are studying. For example, if you are interested in figuring out the processes by which parents transmit their political perspectives to their children, the theoretical construct you are studying is "transmission of political perspectives." If you are interested in whether grades motivate students' learning, your theoretical construct is "students' motivation." If you are interested in how television networks attract and retain viewers through branding, your theoretical concept is "branding." Notice that the theoretical construct is the phenomenon, event, or experience you want to learn more about.

A second criterion that a research question should meet is that it should contain some suggestion of *recognizability* of the theoretical construct. This means that the research question articulates the theoretical construct in a specific enough way so that you'll know it when you see it when you are coding for it in your data. In other words, it supplies a clear unit of analysis that allows you to tell the difference between that construct and other constructs relatively easily. To accomplish recognizability, word the construct in a way that is concrete and specific.

An example will help clarify this idea of recognizability. Celeste started her dissertation planning with a theoretical construct of "the experience of nontraditional women in college." While certainly a construct that would be important to explore, it is too large because Celeste would have a difficult time recognizing the construct when she sees it in her data. It involves a potentially large number of different constructs, including women's experiences of raising children while going to school, degree of support from family members, responses of other students, educational accomplishments, use of technology, emotions the women experience, and on and on and on. There is virtually nothing having to do with nontraditional women college students that would not count as part of the construct of "the experience of nontraditional women in college." A more specific theoretical construct would be "nontraditional women's experiences of discrimination in the classroom" or "nontraditional women's use of support services on campus." The recognizability here is that the theoretical construct is focused on one aspect of nontraditional women's

experiences and allows Celeste to discriminate between it and other constructs that are a part of nontraditional women's experiences in college. Identifying recognizability in this way allows Celeste to find more examples—and more nuanced examples—of these experiences in her data because she can ask herself, as she sees an experience discussed, "Is this an example of ____?"

Here's another example: You begin with a theoretical construct of "group purpose in therapeutic settings." Again, you have many options for theoretical constructs as part of this construct, including the importance of achieving the group's purpose, therapists' strategies for achieving group purpose, obstacles to achieving it, and so on. You might choose to settle on "participants' methods of sabotaging group purpose" as your recognizable theoretical construct for your research question. As you formulate your research question, then, think about how you will code data with that question, looking for examples of the theoretical construct you are considering featuring in your research question. Will you be able to locate it and distinguish it easily from other constructs that appear in your data?

There's another criterion you want your research question to meet, and that is *transcendence of data*. Except in a few instances (and we'll talk about what these are shortly), your research question should not include mention of the specific data you are using to investigate your question. Many different kinds of data can be used to answer your research question, so don't confine your question to the one type of data you plan to study. You want your question to be more abstract than those specific data.

For example, if you want to study resistance strategies used by marginalized groups to challenge institutions, you can use as your data a social movement, works of art by politically motivated artists, the songs sung by union organizers, or the strategies used by Mexican immigrants to improve their status in the United States, to name a few. You want your study to contribute to a significant theoretical conversation in your field, and it can do that more easily if your question is not tied to one particular kind of data. A research question on the topic of resistance that transcends the data, then, might be, "What is the nature of the resistance strategies used by subordinate groups in their efforts to challenge hegemonic institutions?"

Let's look at an example where the criterion of transcendence of data was violated in a research question. Larry initially proposed as part of his

research question a theoretical construct of "accounting practices used in children's theaters in Detroit." Here, his theoretical construct is the same as his data—he is conflating the construct in the research question with the data he will use to answer the question. As a result, Larry's story has limited interest to other readers. Larry certainly could collect data for his study concerning accounting practices in children's theater groups in Detroit, but the construct he wants to understand in his study is larger than that—perhaps something like "accounting practices in nonprofit arts organizations."

There are a few kinds of dissertations where the criterion of transcendence of data in the research question does not apply. These are dissertations in which researchers want to find out about a particular phenomenon, so the research is specifically about that phenomenon. For example, someone who is interested in the strategies used by Alcoholics Anonymous to attract members would want to include *Alcoholics Anonymous* in the research question. In this case, the researcher sees something unique and significant about that particular organization, in contrast to other treatment approaches, and sets out to understand it specifically.

There are some fields, too, where the data are typically included in the research question in dissertations. History is one. Dissertations in this field are about a particular place and time, and their purpose is to explore that place and time. Thus, those particulars are included in the theoretical construct of the research question. For example, a research question for a history dissertation might be, "How was a counterculture identity sustained in Humboldt County, California, in the 1980s and 1990s?" The discipline of English is another one where research questions may include mention of data. Scholars in English are often interested in a writer or group of writers or a particular type of literature, and those would be included in the research question. An example is: "How do troll images function in the narratives of Scandinavian writers between 1960 and 1990?"

Your research question also should meet the criterion of identifying your study's *contribution to an understanding of the theoretical construct*. Your research question should name what happens to the theoretical construct in your study—what you are doing with it in your study or what interests you about it. This contribution should be developed from the theoretical conversations in your discipline and should reflect a specialized knowledge

of your discipline. For example, the new contribution you might be making is to begin to suggest the communication processes by which political beliefs are transmitted within families. You know that such beliefs (the theoretical construct) get transmitted. Your new contribution will be to explain some of the processes by which the transmission happens. Or let's say your theoretical construct is stay-at-home mothers. The new contribution you might make is to explain how stay-at-home mothers legitimize the role in an era when most women work. Meeting this criterion in your research question forecasts the contributions to the discipline you'll discuss in your conclusion.

A fifth criterion your research question should meet is *capacity to surprise*. You should not already know the answer to the research question you're asking. You want to be surprised by what you find out. If you already know the answer to your question, you don't need to do the study. Moreover, if you know the answer, you aren't really doing research. Instead, you are selecting and coding data to report on and advocate for a position you already hold. Zaila, for example, had selected as her data immigrant narratives, and her research question was, "How do traumatic events produce long-term negative effects on individuals?" She was already assuming that immigration inevitably traumatizes individuals and that there are no possibilities other than to experience immigration negatively. She was not likely to be surprised by her findings because her question articulated what she was expecting to discover. If she continued in this direction, she certainly could have found examples of negative effects, but her contribution to her discipline (and her future ability to publish) would have been greatly diminished. And, by the way, don't worry about not coming up with any significant findings when you ask a question and don't already know the answer to it. Whatever findings you get are your findings, and they tell you something useful about your theoretical construct.

The final criterion for judging a research question is *robustness*, the capacity to generate complex results. Your question should have the capacity to produce multiple insights about various aspects of the theoretical construct you are exploring. It should not be a question to which the answer is "yes" or "no" because such an answer is not a complex result. The following list provides examples of how to begin research questions that typically produce robust findings.

Research Questions that Produce Robust Findings Often Begin With . . .

- What is the nature of
- What are the functions of
- What are the mechanisms by which
- How do . . . perceive
- What factors affect
- What strategies are used
- How do . . . respond
- How do . . . affect
- What are the effects of
- What is the relationship between
- How are . . . defined
- How do . . . differ
- Under what conditions do

When you are formulating your research question, work carefully on wording it so that the question meets the six criteria for a good research question: It clearly identifies the theoretical construct you are studying, it contains some suggestion of recognizability of the theoretical construct, it (usually) transcends your data, it identifies your study's contribution to an understanding of the theoretical construct, it has a capacity to surprise, and it can produce robust results. A question formulated according to these criteria ensures that your study has a solid center that can hold all of the pieces of the study together.

Once you have the core of a question that you think is a good one, work with your conversational partner (if he is still hanging in there with you) to formulate the exact wording for the question. This is important to do now because it helps test the viability of the research question before you get too far along. Here are samples of some poorly worded research questions that don't meet one or more of the criteria for a good research question. Notice how easily they can be revised into good questions:

- **Research Question 1**: "Are minority mentoring programs effective in mentoring minority undergraduate students?" This question does not meet the criterion of robustness because it is a yes-no question that will not produce complex and insightful findings. **A better question is**: "What factors characterize successful mentoring relationships for minority undergraduate students?"

41

- **Research Question 2**: "What is the history of public education in Washington, D.C.?" This question for a study in the discipline of history is inappropriate because it contains no identification of the contribution the study will make to an understanding of the theoretical construct—education in Washington, D.C. Because no contribution the history will make is specified in the question, anything can count as data to include in the study (history of minority relations within the schools, history of school finances, history of assessment of students, history of pedagogical practices used in the schools), thus violating the criterion of recognizability. **A better question is**: "How did the relationship between teachers and unions in Washington, D.C., affect pedagogical practices within the schools in the decade of the 1960s?"

- **Research Question 3**: "How do climate-driven changes in the biophysical environment of the Great Lakes region affect the sustainability of wetlands?" This question violates the criterion of transcendence of data. It names the particular data that will be collected to answer the question—the biophysical environment of the Great Lakes region. **A better question is**: "How do climate-driven changes in the biophysical environment affect the sustainability of wetlands?"

- **Research Question 4**: "How do Amish parents ensure that their children actively contribute to the survival of the Amish community?" This question does not have a recognizable theoretical construct. Virtually any practice in which Amish parents engage could be seen as a possible mechanism for ensuring active contributions by their children, and collecting and coding data to answer this question would be very difficult. **A better question is**: "What disciplinary practices do Amish parents use to facilitate their children's active participation in contributing to the survival of the Amish community?" "Disciplinary practices" focuses the theoretical construct and enables the researcher to be clear about what will answer the question. Notice that the data are named in this question. That's because the researcher is interested in the Amish community in particular, so lack of transcendence of data is not a problem here.

- **Research Question 5**: "How does the Starbucks chain engage in oppressive practices toward consumers?" Let's assume the researcher really wants to study only Starbucks for some reason, so this question doesn't violate the criterion of transcendence of data. But it does violate the capacity to surprise. The researcher is already assuming that Starbucks performs a particular function. **A better question is**: "What are the impacts of Starbucks on the consuming patterns of its patrons?"

- **Research Question 6**: "Are the learning strategies used by law students at St. Louis University's School of Law effective?" There are three problems with this question. It includes the data in the question, violating the criterion of transcendence of data. It asks a yes-no question, violating the criterion of robustness. And it has a vague theoretical construct—strategies to learn what? **A better question is**: "What learning strategies do first-year law students use to develop their case-analysis skills?"

- **Research Question 7**: "What happens when motivational techniques from the business world are applied to nonprofit arts organizations?" This question lacks specificity in identification of the contribution to an understanding of the theoretical construct. "What happens" does not provide a clear and specific understanding about what interests the researcher about nonprofit arts organizations. **A better question is**: "What motivational techniques are reported as effective by the staff of nonprofit arts organizations?"

- **Research Question 8**: "How do union organizations use the strategy of enactment to retain their radicalism over time?" The trouble with this question is that the answer will not be a surprise because the researcher has already assumed that retention of radicalism is due to one strategy. **A better question is**: "What strategies do union organizations use to retain their radicalism over time?"

Multiple Research Questions

You undoubtedly have seen dissertations or journal articles in which there is more than one research question. Should you have more than one

43

question in your study? Maybe, but we discourage it, and here's why: In some cases, studies contain more than one question because researchers have not thought carefully enough about what they want to find out. As a result, they take a scattershot approach and try to get close to the question they want to answer by asking about many things. A better approach is to aim for one research question and to think carefully about what it is. Refine it sufficiently so that it really gets at the key thing you want to find out. All research designs have one central question that is guiding them, and taking the time to figure out precisely what it is will make it easier to create and execute your dissertation preproposal and help you analyze your data.

Another reason studies sometimes include many research questions is because students confuse research questions with the questions they will use as prompts for coding their data. The many research questions are really just guides for coding data. In her study about online chat rooms and whether they have the capacity for deep culture, Frankie had such a list of research questions:

- What artifacts do chat rooms use as the basis for developing culture?

- What norms characterize chat rooms?

- What processes are used to socialize new members into chat rooms?

- What mechanisms are used in chat rooms to repair breaches of organizational norms?

These questions are not separate research questions as much as they are questions that Frankie will use to guide her analysis of her data. They are methodological guidelines that will help her know what to look for as she codes her data. Remember that a research question is what the dissertation is about—it produces the title of the dissertation. None of these questions is major enough to assume that role in Frankie's study, so they aren't really her research questions.

There are some cases when more than one research question is warranted. When a study has more than one research question, it tends to be

when basic information about a theoretical construct does not exist, and you need to know basic information before you can investigate a process that characterizes the construct. Frankie, for example, knew from the literature she had read that online interaction is not supposed to have the capacity to develop a deep culture the way that organizations typically do, but she had been observing and participating in a chat room that she thought had such a culture. One question she wanted to ask, then, was, "Can chat rooms develop deep culture?" She did not know whether chat rooms can have this kind of culture, and she wanted to find out. The answer to this question alone, though, does not meet the criterion of robustness for a research question because it would produce an answer of "Yes, chat rooms can have deep culture" or "No, they can't." That finding is not complex enough for a dissertation.

Frankie needed another question in addition to the question about whether chat rooms can develop deep culture—something that would produce more complex findings. Frankie also wanted to find out how participants in chat rooms create deep culture if, in fact, they do. So she had a second research question for her study: "What mechanisms do participants in chat rooms use to create deep culture?" Because she needed to validate that these kinds of interactions have a viable culture before she could ask how this culture is created, her study has two research questions.

Another example of a situation in which more than one research question is warranted is Sam's study. He was interested in differences for students between online and face-to-face courses. He could find nothing that answered the question he wanted to ask: "Are there differences in students' retention of subject matter between online and face-to-face courses?" That was his first question. But he would not have had much of a study by just reporting yes or no concerning whether differences exist. He also wanted to know more about those differences, so he added two other questions: "If so, what are the differences?" and "Do the differences correlate with students' learning styles?"

Some studies contain, in addition to a research question or questions, a set of hypotheses. When research questions are developed for quantitative research designs, they lead to hypotheses. Because quantitative designs produce as their primary data measures of significance or measures of relationship among some number of factors, the research question is extended to include one or more hypotheses about whether the relationship