<div style="border: 1px solid black; display: inline-block;">CHAPTER FOUR</div>

DESIGNING YOUR STUDY AND SELECTING A SAMPLE

Rarely would anyone starting out on a trip just walk out the door with no thought of where to go or how to get there. The same is true when beginning a research study. You need some idea of what you want to know and a plan for carrying it out. This map, or research design, is "*a logical plan for getting from here to there,* where *here* may be defined as the initial set of questions to be answered, and *there* is some set of conclusions (answers) about these questions" (Yin, 2014, p. 28, emphasis in original).

This chapter begins with how you select a topic for a research study, followed by how to focus this topic and shape it into a research problem. The research problem reflects your theoretical framework. We explain what a theoretical framework is and what the role of a literature review is in establishing this framework and forming the problem statement. Although defining the research problem, identifying the theoretical framework, and reviewing the literature are explained in sequence here, in reality they are very much interactive processes, as we hope to make clear. Once the research problem is defined, your next task is to select the sample to be studied—a process also covered in this chapter.

SELECTING A TOPIC

How do you select a topic for a qualitative research study? The first place to look is your daily life—your work, family, friends, community. What are you curious about? What is happening or

has occurred at work that puzzles you? Why are things the way they are?

What happens when something changes at work, in your family, in your neighborhood? Look around. What is interesting to you that you do not quite understand? For example, you might observe that all your efforts to include certain students in classroom discussions have failed. You might wonder about any number of factors related to this situation. Is there something about these students that makes them reluctant to participate? Is it the methods you use to try to include them? Is there something about the classroom atmosphere? Your feelings about these students? Thus out of personal, practical experience can come research questions. Following are several examples of how our daily lives can generate a topic for research:

- Paul, a hospice counselor, wondered how the grieving experience of older adults could also be a significant learning experience, one that is transformative (Moon, 2011).
- Amelia had been working in adult basic education. She became fascinated with the stories and experiences of how young adults who had left high school transition into adult education programs (Davis, 2014).
- Alfred had been teaching writing and composition at a community college. He was interested in how to teach in a way that would engage students and help them both learn to write and feel as if they were making change in the world and in their lives (Siha, 2014).
- Robin had worked as a museum educator. She observed that some docents were quite good at their jobs. She wondered how volunteer docents, often with a minimum of training, became experts (Grenier, 2009).

In applied fields of practice such as education, management, social work, health professions, and so on, the vast majority of research topics come from one's personal interest in the field and from the work setting itself. A research topic can also come from other sources. Current social and political issues offer numerous possibilities. For example, one might become interested in the learning and practices of health care providers in light of the

changes in health care and the pressures of evidence based medicine (Timmermans & Oh, 2010). Out of their concern and interest in these issues, Armstrong and Ogden (2006) conducted a qualitative study of how practicing physicians deal with such changes and how these changes altered their behavior. Another example from social and political discourse is related to the 2008 financial crisis and the increased public discussion of the limited financial literacy of many adults. This increased public discussion prompted Tisdell, Taylor, and Sprow Forté (2013) to conduct a study to examine the teaching beliefs of financial literacy educators and how they attempt to educate about financial matters in working class communities.

A topic might come from the literature, especially previous research or theory in an area. Something you read in your association newsletter, a paper you write for a course assignment, or even leisure reading may be the source of a question that can evolve into a research study. Completed research studies are a good source because nearly every research study has a section with suggestions for future research, many of which could be approached qualitatively. Theory might also suggest topics. Much of the theoretical literature in adult education, for example, states that adults are self-directed and therefore prefer to participate in planning, implementing, and evaluating their own learning. However, data-based studies of adult learners have revealed that some do not want—or know how—to take control of their own learning. Since these two notions are inconsistent, a problem arises. Is self-direction a precondition of adult learning, or is it one of the goals of an adult learning activity? What differentiates self-directed learners from those who are not? What about the context of learning that may or may not promote self-direction? Is self-directed learning—as opposed to, say, collaborative learning—desirable?

Although not as common in qualitative research as it is in quantitative research, a research problem can be derived from a theory by questioning whether a particular theory can be sustained in practice. Even architects of grounded theory (see Chapter Two) concede that qualitative research can be used to elaborate and modify existing theory by the rigorous "matching of theory against data" (Strauss & Corbin, 1994, p. 273). For example, Wenger's (1998) theory of communities of practice posits that learning is a

social activity in which we collectively make meaning as we mutually engage in some activity. Further, that learning changes who we are, our identity. To explore Wenger's theory, you could select a community of practice to study, as did Allen (2013) in his ethnographic case study of how social media mediates the boundary between a workplace-based community of practice and the external professional community of Microsoft SharePoint.

So research topics most often come from observing and asking questions about your everyday activities. They can also come from social and political issues, from the literature on a topic, or from theory. These areas of course intersect; for example, there are always social and political issues embedded in one's work setting. So, too, you are likely to encounter theories in reading the literature in your field. A crucial factor in deciding what topic you would like to research is to be *genuinely* curious and interested in finding the answers to your questions. This interest, even passion, will carry you through the process more than any other single factor. Once you have a topic, the next step is to shape it into a research problem.

The Research Problem

It would be a fruitless undertaking to embark on a research journey without first identifying a research problem. Most people understand what it means to have a "problem." A problem in the conventional sense is a matter involving doubt, uncertainty, or difficulty. A person with a problem usually seeks a solution, some clarification, or a decision. So, too, with a research problem. For Dewey (1933), a problem is anything that "perplexes and challenges the mind so that it makes belief . . . uncertain" (p. 13).

The first task, then, in conducting a qualitative study is to raise a question about something that perplexes and challenges the mind. It has often been said that research is more art than science. In comparing qualitative research to the art form of dance, Janesick (1994) says of this important first step, "All dances make a statement and begin with the question, What do I want to say in this dance? In much the same way, the qualitative researcher begins with a similar question: What do I want to know in this study? This is a critical beginning point. Regardless of point of view, and

quite often because of our point of view, we construct and frame a question for inquiry" (p. 210).

The thing you are curious about, then, forms the core of the research problem, or the problem statement. It reflects your particular theoretical framework; more precisely, it represents a gap in the knowledge base. As Kilbourn (2006) points out:

> Statements such as "I want to explore . . ." and "This study will examine . . ." do not tell a reader what the problem of the study is; rather, they say what the study will do, and although what the study will do is equally critical, a reader first wants to know the problem that will be the focus of the research. (p. 538)

In crafting the research problem, you move from general interest, curiosity, or doubt about a situation to a specific statement of the research problem. In effect, you have to translate your general curiosity into a problem that can be addressed through research.

The structure of a problem statement, which essentially lays out the logic of the study, can be compared to a funnel shape—broad at the top and narrow at the bottom. At the "top" you identify the general area of interest. Is it students who are the first in their family to attend college? Dealing with diversity in the workplace? Math anxiety? Online learning? You acquaint the reader with what this topic is all about; you introduce key concepts, what has already been studied with regard to this topic, and why it is an important topic; that is, why anyone should care about it.

Moving along, you then narrow the topic, directing the reader toward the specific question you have. At this juncture you also point out the lack of information—*the knowledge gap*—with regard to this particular aspect of the topic. Perhaps nothing in the literature addresses your question, or there may be some research but, for reasons you make clear, it is inadequate or flawed in some important way. You have just led your reader down the funnel to the point where the necessity for the study is obvious. What needs to be done becomes the precise purpose of your study. You typically point out the lack of research related to the exact topic, and then problem statements often conclude with the statement, "The purpose of this study is to . . ." The purpose statement is a restatement of the "gap" in the knowledge base. Once you've

talked about the topic and perhaps what we do know, you point out what we don't know—for example, "Despite the fact that there is much discussion on embodied learning in the literature, there is a paucity of data-based published research studies on how people actually learn through the body." This gap in our knowledge (how people learn through the body) then becomes the purpose statement; the purpose statement might also identify a particular group of people to be studied. For example, with regard to the gap in our knowledge about how people learn through the body, the purpose statement might be: "The purpose of this study is to identify the embodied learning processes of martial arts teachers."

The purpose statement is often followed by a set of research questions. These questions reflect the researcher's thinking on the most significant factors to study. Maxwell (2013) suggests researchers ask themselves "what questions are most central to your study? How do these questions form a coherent set that will guide your study? You can't study everything interesting about your topic; start making choices. Three or four main questions are usually a reasonable amount for a qualitative study, although you can have additional subquestions for each of the main questions" (p. 84). For example, with reference to the embodied learning study above, research questions might be (1) How do martial arts instructors recognize that embodied learning is taking place? (2) What are the steps or stages in the process of embodied learning? (3) How do martial arts instructors foster or promote embodied learning?

Research questions also determine how data are to be collected. In qualitative research they often identify areas of inquiry for what to observe in a field observation, or what topics to ask about in an interview. Research questions are *not* usually specific interview questions; research questions are broader, identifying areas to ask questions about. Research questions that guide a qualitative inquiry should not be confused with the general question, curiosity, or puzzlement that gave rise to the study in the first place (and that is reflected in the problem statement and purpose of the study). For example, in Bierema's (1996) study of executive women, her overall question or purpose was to understand how these women learned enough about the culture to break through the glass ceiling. Questions that guided the study were, "What formal and informal learning do women experience to develop

their understanding of organizational culture? What barriers do women encounter in their climb up the corporate ladder? What are executive women's strategies for coping and excelling in corporate environments?" (p. 149).

In summary, the problem statement is a carefully crafted essay that lays out the logic of the research study. In a thesis or dissertation, the problem statement comes after a section usually titled "Introduction to the Problem" or "Background of the Problem." This introductory section can be any length but usually runs five to ten pages. It is where you can give us the details about the topic, what we know, what research has been done, what concepts and theories are important, and so on. You basically take the reader's hand and lead him or her through the topic to get to the place where *you* want to land; that is, the particular question that you have about the phenomenon. The problem statement is kind of a summary of this introductory section and can be as short as a half page—one or two pages being quite common. In a journal article, the problem statement, introduction to the problem, and sometimes the literature review are often interwoven together. Nevertheless, the important components of any problem statement should be present.

There are three important components to the problem statement. First is the *context* of the study; that is, what is the area or topic you are interested in and about which you have a particular question? This is the easy part of the problem statement, because writing anything about some topic identifies the context of the study. A second component is the identification of the *gap* in the knowledge base—what we don't know that your research will address. The third component is making it clear, either implicitly or explicitly, that this is a *significant* problem to address. There is some urgency about addressing this problem. Why is it important to know the answer to your question? Why is it important to fill in the knowledge gap? The problem statement ends with the purpose statement and research questions.

Exhibit 4.1 is an example of a problem statement of a study of dealing with emotions in the adult classroom. The first paragraph establishes the context of the study—the well-researched and established link between emotional states and learning. The sentence beginning "The literature in the fields of adult education and

EXHIBIT 4.1. PROBLEM STATEMENT: ENGAGING MOMENTS: ADULT
EDUCATORS READING AND RESPONDING TO EMOTION
IN THE CLASSROOM.

Statement of the Problem

Research in neuroscience indicates that emotional states
are the starting point for all learning (Damasio, 1994a,   *Context*
1999, 2003; LeDoux, 1996, 1999, 2002). There are
thousands of states, each containing a unique mix of
potential behaviors, feelings, and 16 emotions that can
either enhance or impede learning. The literature in the
fields of adult education and learning readily acknowledges   *Significance*
that emotions influence the learning process (Argyris,
Putnam, & Smith, 1985; Dirkx, 2001; Heron, 1999;
Lovell, 1980; MacKeracher, 2004; Merriam et al., 2007;
More, 1974), however there is surprisingly little research
and/or literature on how this process plays out in the adult *Gap*
classroom. This study sought to understand and thickly
describe the nature of the experiences of a group of adult
educators and how they go about reading and responding
to learners' emotional states in practice.

Purpose Statement and Research Questions

The purpose of this study was to better understand the   *Purpose*
practices of adult educators in reading and responding to
emotional states exhibited by learners. The study was
guided by the following questions:

1. What indicators do adult educators use to read and determine
   emotional states?
2. What actions do adult educators take in response to learners'
   emotional states?
3. What is the reasoning behind the actions taken?

Source: Buckner (2012). Reprinted with permission.

learning" speaks to the significance of this study—that is, knowing
more about this link can only enhance our learning. Next the "gap"
in our knowledge is clearly identified—we know little about how
emotions play out in the adult classroom. This gap in our knowledge
is then turned into the purpose of the study—that is, the research will
directly address this gap in our knowledge base. The purpose
statement is followed by three research questions.

In the example in Exhibit 4.2, Valente (2005) sets up the problem statement regarding older adults' self-directed learning and their health care. The first paragraph establishes the context of the study—health care needs of older adults in a managed care system. In both the first and second paragraphs there are references to the significance of the problem: health educators recommend a more "active role for the patient in their own health care" and older adults are particularly at risk in this system. The *gap* in our knowledge is that we know little about how older adults are using self-directed learning for their health care. This gap then becomes the purpose of the study followed by five research

EXHIBIT 4.2. PROBLEM STATEMENT: THE ROLE OF SELF-DIRECTED LEARNING IN OLDER ADULTS' HEALTH CARE.

Statement of the Problem

Growing numbers of older adults are placing increasing demands on medical services systems and, subsequently, will affect the future direction of health care policy. In response to the increasing numbers, costs, and health care needs of older adults, the medical establishment has changed patient-care policies. For example, managed care provider reimbursement policies have created incentives to move patients quickly through the health care system and have pressured physicians to limit office visit time for dialogue and health education. In response to these changes, health educators have been promoting an active role for patients in their own health care (Berman & Iris, 1998; Keller & Fleury, 2000; National Centers for Chronic Disease Prevention & Health Promotion, 2002).	*Context* *Significance*
The importance of understanding factors contributing to health maintenance is especially relevant for older adults, as it is this segment of the population who are most at risk. Those older adults who have taken control of their health care are self-directing their own learning. However, little is known about how older adults are using self-directed learning to gain access to health information and how this information is affecting their health care.	*Significance* *Gap*

(*continued*)

<center>EXHIBIT 4.2   (*Continued*)</center>

Statement of the Problem

Purpose of the Study

The purpose of this study was to understand the role of self-directed learning in older adults' health care. The research questions that guide this study are as follows: | *Purpose*

1. What motivates older adults to take control of their learning regarding health care?
2. What health care behaviors are controlled by self-directed learners?
3. What contextual factors are controlled by self-directed learners?
4. What is the process of self-directed learning of one's health care?
5. How does self-directed learning affect one's health care?

Source: Valente (2005). Reprinted with permission.

questions exploring different aspects of the overall (and more general) purpose.

Finally, Exhibit 4.3 is a worksheet that you may find helpful in setting up your research problem. As with all problem statements, you first identify the topic that you are interested in. This is the broad top of the funnel structure. As you move on in explaining what this topic is about and what *is* known about your topic, and then what is not known (the "gap" in our knowledge), you move to the narrow end of the funnel. Somewhere in this movement you indicate why this is an important problem to be researched. Finally, at the narrowest end of the funnel, you take the gap you have already identified and write a purpose statement explicitly stating how your study will address this gap. This purpose statement is often followed by research questions.

THE THEORETICAL FRAMEWORK

A colleague of ours once commented that if she could have figured out what a theoretical framework was early on, she could have cut a year off of her graduate studies! Indeed, the theoretical or conceptual framework (terms used interchangeably by many writers)

Exhibit 4.3. Problem Statement Worksheet.

In your field, what topic is of interest to you that you could shape into a research study?

What are some of the things we *do* know about this problem/topic from the literature?

What is the *gap* in our knowledge/understanding of this phenomenon? That is, what is missing from the literature on this topic? This is the *problem* of your study. (Although we know x, y, z about this phenomenon, we *do not know* . . .)

Take the "gap" in our knowledge and turn it into a purpose statement. Complete this sentence:
    The purpose of this study is to

What are the specific research questions that elaborate your research purpose?

of a study and where theory fits into a research study continue to mystify and frustrate many a novice (and sometimes experienced) researcher. Yet it is often the lack of a clearly articulated theoretical framework—or weak theorizing in general—that results in a study proposal or report being rejected by selection committees and publication outlets. Unfortunately, although it is relatively easy to spot the lack of a theoretical framework, it is considerably more difficult to explain what it is and how to go about incorporating it into your study.

WHAT IS A THEORETICAL FRAMEWORK?

Part of the struggle in identifying the theoretical framework in a qualitative study is that qualitative research is designed to inductively build rather than to test concepts, hypotheses, and theories. Because of this characteristic, many mistakenly believe that theory has no place in a qualitative study. Further, some who write about qualitative research speak of theory as it relates to the particular methodology one uses and that methodology's epistemological underpinnings (Crotty, 1998; Denzin & Lincoln, 2011).

Yet another point of confusion is that the terms *theoretical framework* and *conceptual framework* are often used interchangeably in the literature. We prefer *theoretical framework* because a theoretical framework seems a bit broader and includes terms, concepts, models, thoughts, and ideas as well as references to specific theories; further, conceptual frameworks are often found in the methodology chapter or section of a quantitative study wherein the concepts and how they are to be operationalized and *measured* are presented.

Although it is good to explore your ideas about the nature of knowledge and its construction (epistemology) and the logical links to how you conduct research (methodology), this is more often discussed in the section on methodology; this is not how we and others think about the theoretical framework of a particular study.

We concur with Schwandt's (1993, p. 7) statement that "Atheoretical research is impossible." A theoretical framework underlies all research. Theory is present in all qualitative studies

because no study could be designed without some question being asked (explicitly or implicitly). How that question is phrased and how it is worked into a problem statement reflect a theoretical orientation.

Just what is a theoretical framework? A theoretical framework is the underlying structure, the scaffolding or frame of your study. This underlying structure consists of concepts or theories that inform your study (Maxwell, 2013). The theoretical framework is derived from the orientation or stance that you bring to your study, and every study has one. As Anfara and Mertz (2015, p. xv) observe, a theoretical framework "is any empirical or quasi-empirical theory of social and/or psychological processes, at a variety of levels (e.g., grand, midrange, explanatory), that can be applied to the understanding of phenomena." They also write that theoretical frameworks are the "lenses" to study phenomena. Examples of what they mean by "lenses" to study phenomena might include "Vygotskian learning theory, micro-political theory, class, reproduction theory, job-choice theory, and social capital" (p. xv). In Anfara and Mertz's edited book titled *Theoretical Frameworks in Qualitative Research,* chapter authors discuss their use of theoretical frameworks in their qualitative research. Frameworks range from transformational learning theory to Kübler-Ross's grief model to Black feminist thought and liminality theory from anthropology.

Identifying Your Theoretical Framework

There are several ways to identify what your theoretical framework is. First, what is your disciplinary orientation? Each of us has been socialized into a discipline (such as education, psychology, business, and the like) with its own vocabulary, concepts, and theories. This disciplinary orientation is the lens through which you view the world. It determines what you are curious about, what puzzles you, and hence, what questions you ask that, in turn, begin to give form to your investigation. Looking at the same classroom, for example, different researchers might ask different questions about it. An educator might ask questions about the curriculum, the instructional strategies, or the learning activities. A psychologist might be curious about the self-esteem or motivation of certain students, a sociologist about the social interaction patterns or roles that

different participants assume, an anthropologist about the culture of the classroom—its rites and rituals.

One of the clearest ways to identify your theoretical framework is to attend to the literature you are reading that is related to your topic of interest. What are the titles of journals? What key words do you use to search databases for information? At the very least, you will be looking into the literature to see whether the study you are thinking of doing has already been done. In your search, what are the recurring concepts, models, and theories? Who are the major writers, theorists, and researchers in this area? (See the following section on reviewing the literature for a fuller discussion of this process.)

The framework of your study will draw upon the concepts, terms, definitions, models, and theories of a particular literature base and disciplinary orientation. This framework in turn will generate the "problem" of the study, specific research questions, data collection and analysis techniques, and how you will interpret your findings. Nearly 30 years ago, Schultz (1988) explained this process with regard to vocational education research: "Any research problem may be approached from more than one theoretical perspective. . . . The choice of a theoretical model/conceptual framework . . . will guide the research process in terms of the identification of relevant concepts/constructs, definition of key variables, specific questions to be investigated, selection of a research design, choice of a sample and sampling procedures, data collection strategies . . . data analysis techniques, and interpretation of findings" (p. 34).

All aspects of the study are affected by its theoretical framework. The theoretical framework in relation to the specific research problem to be investigated can be pictured as a set of interlocking frames. As illustrated in Figure 4.1, the outermost frame—the theoretical framework—is the body of literature, the disciplinary orientation that you draw upon to situate your study. This framework indicates to the reader the topic you are interested in. The theoretical framework for Buckner's study, mentioned earlier, is the role of emotions in learning; for Valente's study it is self-directed learning. Drawing from the literature wherein the theoretical framework is lodged, you identify what is known about the topic (citing appropriate literature), what aspect of the topic

FIGURE 4.1. THE THEORETICAL FRAMEWORK.
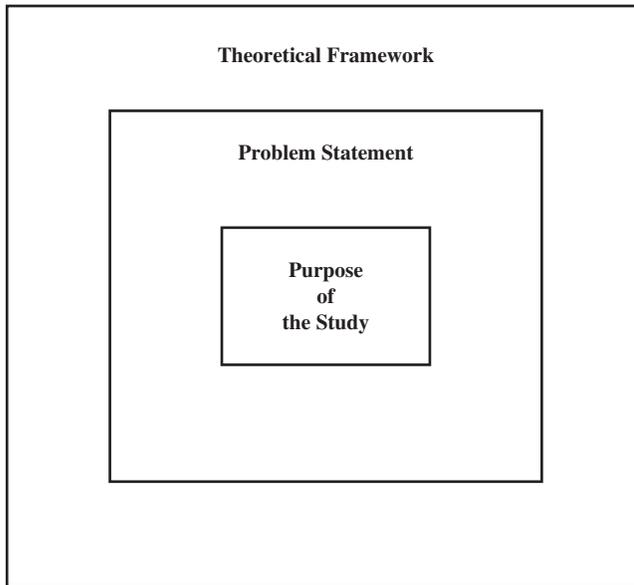
you are going to focus on, what is not known (the gap in the knowledge base), why it is important to know it, and the precise purpose of the study. All of this information is pulled from the larger frame of the study in order to construct the problem statement itself (see the previous section on problem statements). Thus the problem statement is represented by a second frame that is firmly lodged within the overall framework. Finally, the exact purpose of the study is within the problem statement and can be pictured as the third, innermost frame in this set of interlocking frames.

The theoretical framework, problem statement, and purpose can be illustrated in a study of Korean workers who, postretirement, transition into second careers (Kim, 2014). The author begins by stating that a rapidly aging, globalized economy such as Korea "has created different employment trends and work lives, which in turn require adults to adapt to changes in their careers" (p. 4). Kim then presents data showing the increase in labor force participation of those over 55, including a 41 percent employment rate for people

age 65 to 69, even though the official—and in some situations mandatory—retirement age is 60. She points out that "postretirement employment after voluntary retirement is a relatively new phenomenon in Korea," one that has not yet been adequately studied" (p. 4). The literature that *frames* the study (and hence the *theoretical framework*) is career development theory. She reviews and critiques this literature, deciding that several well-known models seem best suited to the more "predictable career mobility typical of employees in organizations in the 20th century," and that the developmental-contextual approach emphasizing "the variability of the process" in conjunction with the fast-changing context of the 21st century (p. 5) is best suited to frame her study.

The *problem* of her study, or the gap in what is known about this phenomenon, is stated as follows: "Little is known about how individuals experience their career transition processes within the realm of postretirement employment" (p. 5).

In addition to determining how the problem and purpose are shaped, "our observations as researchers are framed in some ways rather than others, which makes perception itself theory-laden. Theory allows seeing what we would otherwise miss; it helps us anticipate and make sense of events" (Thornton, 1993, p. 68). That is to say that the things we observe in the field, the questions we ask of our participants, and the documents we attend to are determined by the theoretical framework of the study. It also determines what we do not see, do not ask, and do not attend to. Or, as Mertz and Anfara (2015) point out, one's theoretical framework both reveals and conceals meaning and understanding—something researchers should be aware of.

The sense we make of the data we collect is equally influenced by the theoretical framework. That is, our analysis and interpretation—our study's findings—will reflect the constructs, concepts, language, models, and theories that structured the study in the first place. As Wolcott (2005, p. 180) observes, there is a "need for every researcher to be able to place his or her work within some broader context," and one's theoretical framework is that broader context. This is usually done in the "Discussion" section of a research study. In the study of the career transition process of middle-aged workers to postretirement employment just cited, for example, the findings are situated back in the career development

literature. Situating the findings back in the literature tells the reader exactly how the particular study has addressed the gap in our knowledge; this gap was identified in setting up the problem (see previous mention).

As we noted at the beginning of this section on the theoretical framework, confusion arises about the place of theory in qualitative research because qualitative research is inductive, leading to interpretive or analytical constructs, even to *theory*. The argument could be made, however, that most qualitative research inherently shapes or modifies existing theory in that (1) data are analyzed and interpreted in light of the concepts of a particular theoretical orientation, and (2) a study's findings are almost always discussed in relation to existing knowledge (some of which is theory), with an eye to demonstrating how the present study has contributed to expanding the knowledge base. For example, Merriam discusses how a qualitative study of HIV-positive young adults implicitly tested Erikson's eight-stage model of life-span development (Merriam, 2015). She asked how the threat of death affected movement through stages of development and found that the movement was not as linear or sequential as Erikson's theory implies. Even those who set out to develop a grounded theory (see Chapter Two) do not enter the study with a blank mind, with no notion of what to think about or look for. For example, Al Lily's (2014) grounded theory study of how the international academic community of educational technologies functions as a tribe is framed by the social and anthropological literature on actual Saudi Arabian Bedouin tribal habits and practices.

This section presents a case for theory permeating the entire process of qualitative research. The very questions you raise derive from your view of the world. In research, this view is lodged in a disciplinary base and can be identified through attending to the literature you review in preparation for the study. A discussion of how and why you review the literature follows.

Reviewing the Literature

One way to identify and establish the theoretical framework of a qualitative study is to review the relevant literature. By literature we mean the theoretical or conceptual writing in an area (the "think"

pieces) and the empirical data-based research studies in which someone has gone out and collected and analyzed data. In practice, designing a study is not a linear process of reading the literature, identifying the theoretical framework, and then writing the problem statement. Rather, the process is highly interactive. Your question takes you to some of the literature, which sends you back to looking anew at the phenomenon of interest. In trying to shape the problem, you go back again to the literature, and so on. In essence, you carry on a dialogue with previous studies and work in the area.

Typically, the first question you ask in this dialogue is whether there is any literature on the topic. If so, does it confirm that you are onto a problem that needs researching, or has your idea already been researched to death? In a chapter aptly titled "Terrorized by the Literature," Becker (2007) speaks to everyone's fear of discovering that a "carefully nurtured idea was in print before they thought of it (maybe before they were born) and in a place they should have looked" (p. 136). Claiming that there is no literature on a topic can only mean that no one thinks the topic is worth studying, there is no way to study it, or, more than likely, you have searched too narrowly. In our experience there is always some related literature. An investigator who ignores prior research and theory risks pursuing a trivial problem, duplicating a study already done, or repeating others' mistakes. Then the goal of research—contributing to the knowledge base of the field—may never be realized. According to Cooper (1984, p. 9), "the value of any single study is derived as much from how it fits with and expands on previous work as from the study's intrinsic properties." And if some studies seem more significant than others, it is "because the piece of the puzzle they solve (or the puzzle they introduce) is extremely important."

WHY REVIEW THE LITERATURE?

Investigators who do not take the time to find out what has already been thought or researched may be missing an opportunity to make a significant contribution to their field. Indeed, one function of the literature review is to provide the foundation for contributing to the knowledge base. No problem in one field exists in

isolation from other areas of human behavior. Consequently, there is always some research study, some theory, some thinking related to the problem that can be reviewed to inform the study at hand.

While many novice researchers find the idea of doing a literature review rather intimidating, Montuori (2005) discusses how conducting a literature review can be a rather creative activity. He highlights the fact that a literature review is like engaging with those who have gone before you who have also been fascinated with a similar topic. Doing a literature review is like participating in a dialogue with that community; you can highlight what the assumptions have been and add your own special spin to the discussion. It is a way of contributing to the knowledge construction process related to the topic.

Besides providing a foundation—*a theoretical framework*—for the problem to be investigated, the literature review can demonstrate how the present study advances, refines, or revises what is already known. It is important for the researcher to know how his or her study deviates from what has already been done. A literature review can do more than set the stage for a study, however. The process can contribute to formulating the problem and answering specific design questions. Knowing what hypotheses have been advanced and tested previously, how terms have been defined, and what assumptions have been dealt with by other investigators can simplify the researcher's task; knowing what research designs have been used before, and with what success, can save time and money. For qualitative studies, researchers can benefit from knowing how well certain data collection techniques used in previous related studies may or may not have yielded meaningful data.

Previous research is often cited in support of the way the study is framed, how concepts are defined, and so on. Previous literature can also be drawn upon to make the case that the present study is necessary, urgent, and important to undertake.

Finally, a commanding knowledge of previous studies and writing on a topic offers a point of reference for discussing the contribution the current study will make to advancing the knowledge base in this area. The researcher literally situates his or her findings in the previous literature, pointing out the exact nature of this particular study's contribution.

In the typical research study, references to previous litera-ture—sometimes even the same citation—may appear in three places. First, previous literature and writing are cited in the in-troduction, perhaps judiciously quoted from, to build the case for doing the present study. A quote from a well-known authority about the importance of a problem and the need for research in the area will shore up the researcher's position. Underscoring the paucity of research on a topic by citing the few existing studies is also persuasive.

The second place for a literature citation is in a section or chapter often called the "Literature Review" or "Previous Research." Here the literature is synthesized and critiqued; the work that has been done on the topic, its strengths, and its short-comings are highlighted. In an article-length report of a study, previous literature is often integrated into the development of the problem for study.

Third, the discussion of the findings of a study, found at the end of a research report, *always* contains references to the literature. In the discussion the researcher points out what the study contributes to the knowledge base of the field by showing how the study's findings extend, modify, or contradict previous work. In this discussion the researcher situates the findings of the study within the literature base on the topic, pointing out what new insights have been found, what aspects of theory have been challenged, and so on.

Although there is little doubt that a literature review can strengthen a research study, determining the best time to conduct the review is a matter of some debate. Most writers would agree that the task of becoming familiar with the background of a topic is best undertaken early in the research process; a literature review's impact on problem formulation is an interactive process. At one end of a continuum is a researcher reviewing the literature to find a problem; at the other end is a researcher reviewing the literature to see whether an identified problem has previously been studied. Somewhere in the middle is the investigator who has some notion about what he or she wants to research and consults the literature for help in focusing the problem. Although a literature review helps in problem formation regardless of design, in grounded theory studies in particular, there is a range of opinion as to when

the literature should be consulted. Glaser (1978) feels it is best to wait until after data have been collected. However, Glaser is clear that even in inductive, grounded theory studies, it is essential to read widely. He suggests reading in substantive areas somewhat different from the research area at first, then reading in the researcher's own area as the project gets under way. The activity is then highly relevant, for the researcher can "skip and dip, thereby gaining greater coverage, since he now has a clear purpose for covering his field, which is to integrate his generated theory with the other literature in the field" (Glaser, 1978, p. 32). However, weighing the possibility of being unduly influenced by previous work versus the possibility that an early review of the literature could enhance even a grounded theory study, most qualitative researchers would consult the literature earlier rather than later in the process. In our personal experience, having a command of the literature early in the process greatly facilitates the shaping of the research problem and, simultaneously, decisions related to carrying out the study.

CONDUCTING AND WRITING UP A LITERATURE REVIEW

How is a literature review conducted? This topic is covered in more depth in other sources (Cranton & Merriam, 2015; Galvan, 2012; Imel, 2011). Nevertheless, a summary of the process here may be helpful. First, the scope of the search is determined by how well defined the research problem is, as well as the researcher's prior familiarity with the topic. If you as a prospective researcher have only a vague sense of a problem you want to investigate, a good way to start would be to conduct an overview of the topic. In this way you can identify major studies, theories, issues, and so on. The next step is to check bibliographies, indexes, and abstracts that reference specific aspects of a topic.

Once you have collected a set of references and abstracts, you must decide which full-length resources should be obtained. You can use the following criteria:

- Is the author of the source an authority on the topic, one who has done much of the empirical work in the area, or one who

has offered seminal theory upon which subsequent research and writing has been based? If so, that author's work will be quoted by others and listed in bibliographies on the topic.

- When was the article or book or report written? As a rule, the most recent work in an area should be included in a review.
- What exactly was written about or tested? If a particular resource or research study is highly relevant to your present research interest, it should be included even if the "who" and "when" criteria are not met.
- What is the quality of the source? A thoughtful analysis, a well-designed study, or an original way of viewing the topic likely indicates a significant piece of literature. In historical or documentary analysis, the quality of primary and secondary sources is a major criterion for inclusion in the database.

Once you have decided which sources you want to look at more closely, you must obtain the full document. As you review a source, be scrupulously diligent about recording the full bibliographic reference. If you write down a particularly good quote or idea, record the page number. Many a researcher has spent hours going back to look for an author's first initial, volume number, date, or page number of a reference! Begin developing an annotated bibliography. This will be something you can add to and draw from as you begin putting together the rationale for your study.

Knowing when to stop reviewing the literature is as important as knowing where and how to locate sources. There are two ways you can determine whether you have done enough. One is to recognize that you have covered all of the relevant literature in the area. Your first glimpse of this end point happens when you turn to the reference list at the end of an article or report and discover that you are familiar with all of the references listed. You may even have read them all. When this happens two or three times, you can feel that you have accounted for most, if not all, of the relevant literature. This is a saturation point. The second clue is a bit more subjective—you realize you know the literature. You can cite studies, people, dates, theories, historical trends, and so on. You have a command of the literature. It is time to quit reviewing.

A literature review is a narrative essay that integrates, synthesizes, and critiques the important thinking and research on a particular topic. Having collected and reviewed the relevant sources, the researcher still faces the task of writing up the review into a coherent narrative essay. There are probably as many organizing possibilities as there are authors. Most literature reviews are organized according to particular themes found in the literature reviewed. A review of the literature on learning styles, for example, might contain sections on conceptualizations of learning style, instruments that measure learning style, populations that have been used in learning style research, and so on. Sometimes reviews are organized as a mixture of early important works reviewed chronologically, followed by a thematic organization characteristic of most of the more recent work on a topic.

Regardless of the organization, a crucial component of any literature review is the critical assessment of the research and literature included. The reader wants to know what *you* think of the literature, its strengths as well as its weaknesses, whether or not it constitutes a major breakthrough in the thinking on the topic, what it adds to the knowledge base, and so on. As a caveat, new researchers are sometimes reluctant to critique the research in a field, especially if an author is well-known and respected. However, it's important to point out that a critique does not mean being negative, but rather assessing the strengths and weaknesses of a particular theory or research study and, in particular, how the piece advances (or does not) the thinking about the topic you are investigating.

In summary, a familiarity with previous research and theory in the area of study is necessary for situating your study in the knowledge base of the field. A review of the literature can also yield information that will be helpful when you make design decisions. Further, the literature is crucial to identifying the overall theoretical framework of your study, as well as shaping the problem statement.

Sample Selection

Once the general problem has been identified, the task becomes to select the unit of analysis—the sample. Within every study there are

numerous sites that could be visited, events or activities that could be observed, people who could be interviewed, documents that could be read. The researcher thus needs to choose what, where, when, and whom to observe or interview.

The two basic types of sampling are probability and nonprobability sampling. Probability sampling (of which simple random sampling is the most familiar example) allows the investigator to generalize results of the study from the sample to the population from which it was drawn. Since generalization in a statistical sense is not a goal of qualitative research, probabilistic sampling is not necessary or even justifiable in qualitative research (see Chapter Nine for more discussion on generalizability). Thus nonprobability sampling is the method of choice for most qualitative research. Anthropologists, for example, have long maintained that nonprobability sampling methods "are logical as long as the field-worker expects mainly to use his data not to answer questions like 'how much' and 'how often' but to solve qualitative problems, such as discovering what occurs, the implications of what occurs, and the relationships linking occurrences" (Honigmann, 1982, p. 84). Thus the most appropriate sampling strategy is nonprobabilistic—the most common form of which is called *purposive* (Chein, 1981) or *purposeful* (Patton, 2015). Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned. Chein (1981) explains, "The situation is analogous to one in which a number of expert consultants are called in on a difficult medical case. These consultants—also a purposive sample—are not called in to get an average opinion that would correspond to the average opinion of the entire medical profession. They are called in precisely because of their special experience and competence" (p. 440).

Patton (2015) argues that "the logic and power of qualitative purposeful sampling derives from the emphasis on in-depth understanding of specific cases: *information-rich cases.* Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term *purposeful sampling*" (p. 53, emphasis in original).

To begin purposive sampling, you must first determine what selection criteria are essential in choosing the people or sites to be

studied. Some qualitative researchers, such as LeCompte and Schensul (2010), also use the term *criterion-based selection*. In criterion-based selection you first decide what attributes of your sample are crucial to your study and then find people or sites that meet those criteria. The criteria you establish for purposeful sampling directly reflect the purpose of the study and guide in the identification of information-rich cases. You not only spell out the criteria you will use, but you also say why the criteria are important. For example, in Bierema's (1996) study of executive women in corporate settings, she decided that to ensure that the women were top-level executives, they would have to be from Fortune 500–type corporate environments (one criterion); they had to have achieved executive-level status, which meant that they would have responsibility for a business unit with supervisory, policy development, or organizational strategy responsibilities (a second criterion). Third, she reasoned that they had to have been with the same company for at least five years "to ensure that each participant understood the corporate culture" (p. 150).

Types of Purposeful Sampling

A number of writers have differentiated among different types of purposeful sampling (Creswell, 2013; Miles, Huberman, & Saldaña, 2014; Patton, 2015). Some of the more common types are typical, unique, maximum variation, convenience, and snowball or chain sampling. Using a population of high school graduates for illustration, a discussion and example of each of these types follows.

A typical sample would be one that is selected because it reflects the average person, situation, or instance of the phenomenon of interest. When using a typical purposeful sampling strategy, you want to "highlight what is typical, normal, and average" (Patton, 2015, p. 268). When selecting a site that is "typical" (as in a case study for example), "the site is specifically selected because it is not in any major way atypical, extreme, deviant, or intensely unusual" (p. 284). Using a profile of the average or typical high school graduate, any who fit this profile could be included in a typical purposeful sample.

A unique sample is based on unique, atypical, perhaps rare attributes or occurrences of the phenomenon of interest. You

would be interested in them because they are unique or atypical. With regard to high school graduates, you might select one who has become a professional athlete.

Maximum variation sampling was first identified by Glaser and Strauss (1967) in their book on grounded theory. A grounded theory, it was reasoned, would be more conceptually dense and potentially more useful if it had been "grounded" in widely varying instances of the phenomenon. "Any common patterns that emerge from great variation are of particular interest and value in capturing the core experiences and central, shared dimensions of a setting or phenomenon" (Patton, 2015, p. 283). Sometimes this strategy involves looking for "negative" or "disconfirming" instances of the phenomenon (Miles, Huberman, & Saldaña, 2014, p. 36). Maximum variation sampling of high school graduates would involve identifying and seeking out those who represent the widest possible range of the characteristics of interest for the study.

Convenience sampling is just what is implied by the term—you select a sample based on time, money, location, availability of sites or respondents, and so on. Although some dimension of convenience almost always figures into sample selection, selection made on this basis alone is not very credible and is likely to produce "information-poor" rather than information-rich cases. A convenience sample of high school graduates might begin with your own teenagers and their friends.

Snowball, chain, or network sampling is perhaps the most common form of purposeful sampling. This strategy involves locating a few key participants who easily meet the criteria you have established for participation in the study. As you interview these early key participants, you ask each one to refer you to other participants. "By asking a number of people who else to talk with, the snowball gets bigger and bigger as you accumulate new information-rich cases" (Patton, 2015, p. 298). High school graduates would name other graduates who exemplify the characteristics of interest in the study.

Finally, some qualitative research designs incorporate an ongoing sample selection process commonly referred to as *theoretical sampling*. This type of sampling begins the same way as purposeful sampling. First put forward by Glaser and Strauss (1967),

"theoretical sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges" (p. 45). The researcher begins with an initial sample chosen for its obvious relevance to the research problem. The data lead the investigator to the next document to be read, the next person to be interviewed, and so on. It is an evolving process guided by the emerging theory—hence, *theoretical* sampling. Analysis occurs simultaneously with identifying the sample and collecting the data. As data are being collected and theoretical constructs begin to evolve, the researcher might also look for exceptions (negative-case selection) or variants (discrepant-case selection) to emerging findings.

"TWO-TIER" SAMPLING

Unlike the other types of qualitative research presented in Chapter Two (basic qualitative study, phenomenology, ethnography, grounded theory, narrative), two levels of sampling are usually necessary in qualitative case studies. First, you must select the case to be studied. Then, unless you plan to interview, observe, or analyze all the people, activities, or documents within the case, you will need to do some sampling *within* the case.

As we discussed in Chapter Two, a case is a single unit, a bounded system. And as Stake (1995) points out, sometimes selecting a case turns out "to be no 'choice' at all. . . . It happens when a teacher decides to study a student having difficulty, when we get curious about a particular agency, or when we take the responsibility of evaluating a program. The case is given" (p. 3). Other times, we have a general question, an issue, a problem that we are interested in, and we feel that an in-depth study of a particular instance or case will illuminate that interest.

To find the best case to study, you would first establish the criteria that will guide case selection and then select a case that meets those criteria. For example, if your interest is in programs that are *successful* in addressing learning disabilities, you would establish criteria for what constitutes a successful program; then you would select a program that meets those criteria. This

program would be the case. For multicase or comparative case studies, you would select several "cases" based on relevant criteria. One of the criteria might be that you want as much variation as possible; hence you would be employing a maximum variation sampling strategy in the selection of your cases. Using the successful learning disabilities program example, you might seek out programs that are successful in a wide range of socioeconomic neighborhoods or that address a wide range of disabilities or grade levels.

Thus the researcher first identifies the case—the bounded system, the unit of analysis—to be investigated. The case can be as varied as a second-grade classroom, the training department of a company, a system-wide model science program, or a patient education clinic at a local hospital. Within every case there are numerous sites that could be visited (as in the model science program), events or activities that could be observed, people who could be interviewed, and documents that could be read. A sample within the case needs to be selected either before the data collection begins or while the data are being gathered (ongoing or theoretical sampling). Random sampling can be used within the case; indeed, this is one strategy that can be employed for addressing validity (see Chapter Nine). More commonly, however, purposeful sampling as outlined earlier is used to select the sample within the case, just as it is used to select the case itself. However, a second set of criteria is usually needed to purposefully select whom to interview, what to observe, and which documents to analyze.

Thus the questions, concerns, and purposes of qualitative studies lead to forms of nonprobability sampling in determining the sample of instances, locations, people, and times to be included. Purposive or purposeful sampling usually occurs before the data are gathered, whereas theoretical sampling is done in conjunction with data collection. The size of the sample within the case is determined by a number of factors relevant to the study's purpose. In case studies, then, there are usually two levels of sampling; first the case is selected, then people, events, sites, and so on *within* the case are selected. For both levels of sampling, criteria need to be established to guide the process. Using the successful learning disabilities program as an example, the criteria

for selecting the program (the case) might be the following: the program will have been in existence for a minimum of five years; 60 percent of its students are able to join regular classes after one year in the program; the program deals with learning disabilities in reading and math only. Once the program has been selected, you will need to determine whom to interview (unless you plan to interview everyone) and what to observe. Criteria for selecting the interview sample might include all administrators, teachers who have been with the program at least five years, students representing various ages, length in the program, and particular learning disabilities.

HOW MANY IN THE SAMPLE?

Invariably, the question of how many people to interview, how many sites to visit, or how many documents to read concerns—more likely, haunts—the novice qualitative researcher. Unfortunately for those with a low tolerance for ambiguity, there is no answer. It always depends on the questions being asked, the data being gathered, the analysis in progress, and the resources you have to support the study. What is needed is an adequate number of participants, sites, or activities to answer the question posed at the beginning of the study (in the form of the purpose statement). Lincoln and Guba (1985) recommend sampling until a point of saturation or redundancy is reached. "In purposeful sampling the size of the sample is determined by informational considerations. If the purpose is to maximize information, the sampling is terminated when no new information is forthcoming from new sampled units; thus *redundancy* is the primary criterion" (p. 202, emphasis in original).

Reaching a point of saturation or redundancy means that you begin hearing the same responses to your interview questions or seeing the same behaviors in observations; no new insights are forthcoming. It is impossible to know ahead of time when saturation might occur. In order to recognize that your data is saturated, you must engage in analysis along with data collection. As discussed more fully in Chapter Eight, data analysis is best done simultaneously with data collection.

If you are submitting a proposal to a funding agency, dissertation committee, or other oversight board for approval or support,

you can offer a tentative, approximate number of units to be included (that is, people, sites, cases, activities, and so on), knowing full well that this will be adjusted in the course of the investigation. Patton (2015) recommends specifying a minimum sample size "based on expected reasonable coverage of the phenomenon given the purpose of the study" (p. 314).

SUMMARY

We began this chapter by explaining how to select a topic for study. Once a topic has been selected, it needs to be shaped into a research *problem*. Defining the research problem is a key step in any type of research. You can examine your own practice, review the literature, or look to current social problems for questions that can be shaped into a research problem. The statement of the problem presents the logic of the study and includes identifying the context of the study, the gap in our knowledge of the topic, and a rationale for the importance or significance of addressing this gap through research. The statement of the problem concludes with a very specific purpose statement followed by research questions.

Also discussed in this chapter is the theoretical framework of a study; that is, the underlying structure upon which all other aspects of the study rest. Previous literature plays an important role in the formation of a study's theoretical framework, and we reviewed the benefits of conducting a literature review, the steps in doing it, and the place of the review in the overall research process. Establishing the theoretical framework and reviewing the literature, which we discussed sequentially in the chapter, are, in reality, quite intertwined. From a review of the literature a researcher discovers what research exists on a topic and how theory and previous research may help frame the study at hand. Likewise, a researcher is guided to a specific body of literature by the emerging problem, by issues that arise during data collection and analysis, and by the need to interpret findings in light of previous research.

Selecting the sample is dependent upon the research problem. In qualitative research, the most appropriate sampling strategy is nonprobability sampling. Purposeful and theoretical

sampling are well-known and widely used nonprobability sampling strategies in qualitative research. There are also times when sample selection occurs twice, as in a qualitative case study wherein the case is selected first, followed by people, events, and documents within the case. The chapter closes with a brief discussion of sample size.