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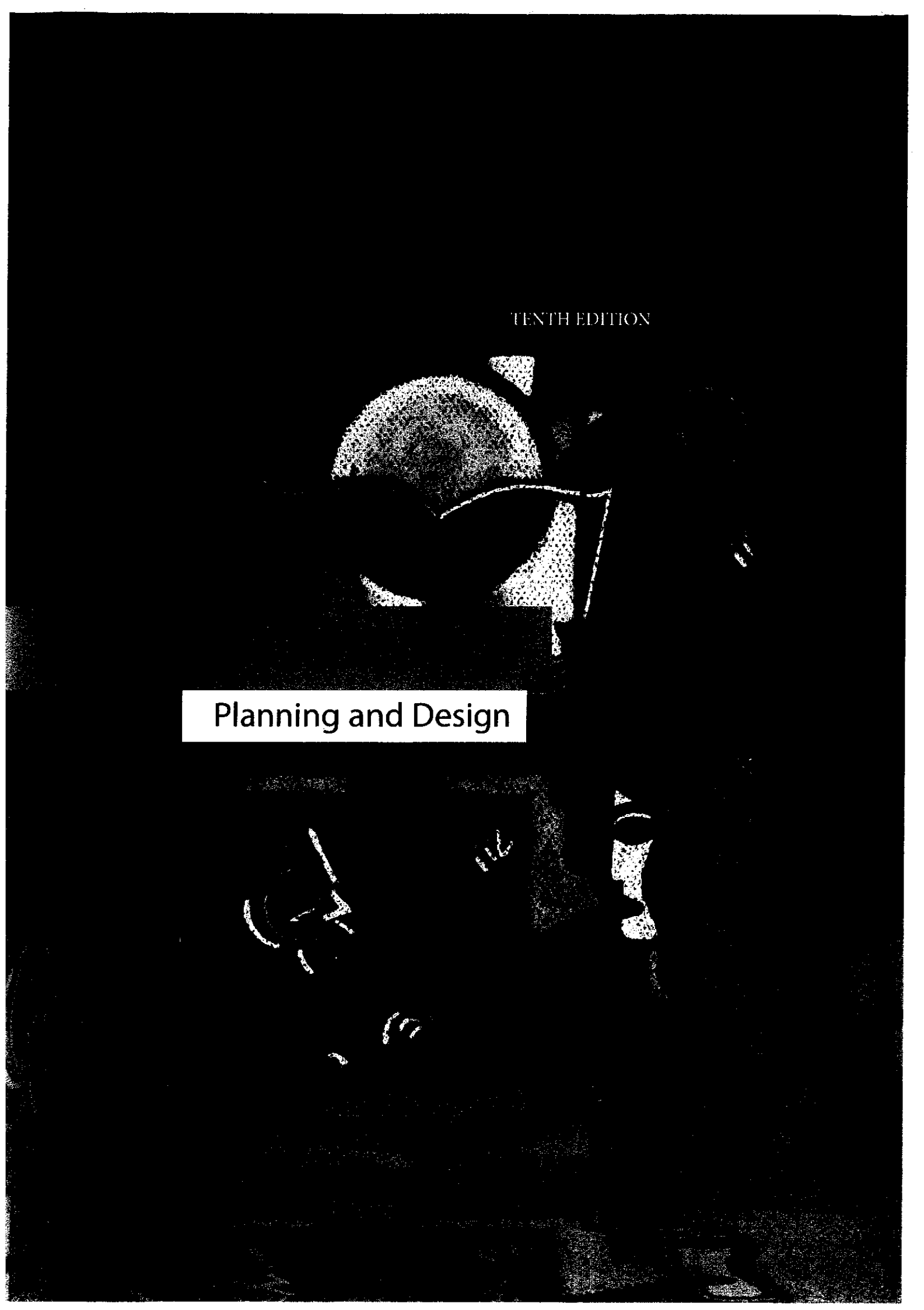
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Qualitative Research

To answer some research questions, we cannot skim across the surface. We must dig deep to get a complete understanding of the phenomenon we are studying. In qualitative research, we do indeed dig deep: We collect numerous forms of data and examine them from various angles to construct a rich and meaningful picture of a complex, multifaceted situation.

The term **qualitative research** encompasses several approaches to research that are in some respects quite different from one another. Yet all qualitative approaches have two things in common. First, they focus on phenomena that occur in natural settings—that is, in the “real world.” And second, they involve capturing and studying the complexity of those phenomena. Qualitative researchers rarely try to simplify what they observe. Instead, they recognize that the issue they are studying has many dimensions and layers, and they try to portray it in its multifaceted form.

As noted in Chapter 1, most researchers strive for objectivity in their research. They believe their observations should be influenced as little as possible by any perceptions, impressions, and biases they may have. By maintaining objectivity, they hope to maximize their chances of determining the ultimate Truth of which we spoke in Chapter 4. In contrast, some qualitative researchers—certainly not all of them—argue against this objectivity principle. Although objective methods may be appropriate for studying events in the physical world, these researchers say, an objective approach to studying human events—interpersonal relationships, social structures, creative products, and so on—is neither desirable nor, perhaps, even possible (e.g., Creswell, 2009; Eisner, 1998; Wolcott, 1994). From this perspective, the researcher’s ability to interpret and make sense of what he or she observes is critical for understanding any social phenomenon. In a sense, *the researcher is an instrument* in much the same way that an oscilloscope, sociogram, or rating scale is an instrument.

Furthermore, some qualitative researchers believe that there isn’t necessarily a single, ultimate Truth to be discovered. Instead, there may be multiple perspectives held by different individuals, with each of these perspectives potentially having equal validity, or truth (Creswell, 2007; Guba & Lincoln, 1988). One goal of a qualitative study, then, might be to reveal the nature of these multiple perspectives.

Qualitative research can be found in many academic disciplines, including anthropology, sociology, psychology, biology, history, political science, education, and medicine. In some disciplines, such as psychology and education, qualitative approaches were once frowned on (largely because of their subjective nature) and have only recently gained wide acceptance as legitimate research. Yet we should hardly think of qualitative research as being “new” or “modern.” In fact, many researchers believe that all inquiry starts out in a qualitative form (e.g., Lauer & Asher, 1988). When little information exists on a topic, when variables are unknown, when a relevant theory base is inadequate or missing, a qualitative study can help define what is important—that is, *what needs to be studied*. The field of medicine, as one example, makes extensive use of qualitative methods when unique or puzzling cases are first observed. Biologists’ efforts to classify newly observed species, create taxonomies, and describe the social behaviors of primates and certain other animal species are largely qualitative efforts. Many analyses of historical data are almost entirely qualitative. And social scientists often look subjectively for patterns in the complex phenomena they observe, sometimes using qualitative methods exclusively and sometimes combining qualitative and quantitative methods into a *mixed-methods design* (more on mixed-methods research in Chapter 10).

In this chapter we give you a general idea of what qualitative research is and what it strives to accomplish, with a particular focus on studies of human beings and their creations. Included in the chapter are descriptions of five kinds of qualitative studies: case studies, ethnographies, phenomenological studies, grounded theory studies, and content analyses. We describe a sixth kind, historical research, in Chapter 7.

The Nature of the Research Problem and Planning in Qualitative Research

In Chapter 2 we emphasized the importance of pinning down the problem with utmost precision. But here, too, we sometimes find an exception in qualitative research. Qualitative researchers often formulate only general research problems and ask only general questions about the phenomenon they are studying. For example, they might ask, What is the nature of the culture of people living in Samoa? or What is it like to live with someone who has Alzheimer's disease? Such research problems and questions do not remain so loosely defined, however. As a study proceeds, the qualitative researcher gains increasing understanding of the phenomenon under investigation and so becomes increasingly able to ask more specific questions—and occasionally can formulate and test specific hypotheses as well.

Because qualitative researchers tend to ask open-ended questions at the beginning of an investigation, they sometimes have difficulty identifying—at the outset—the exact methods they will use. Initially, they may select only a general approach suitable for their purpose, perhaps choosing a case study, ethnography, or content analysis. As they learn more about what they are studying and can thereby ask more specific questions, so, too, can they better specify what methods they should use to answer those questions.

The methodology in a qualitative study, then, may continue to evolve over the course of the investigation. Despite this fact, we must emphasize that *qualitative research requires considerable preparation and planning*. The researcher must be well trained in observation techniques, interview strategies, and whatever other data collection methods are likely to be necessary to address the research problem. The researcher must have a firm grasp of previous research related to the problem so that he or she knows what to look for and can separate important information from unimportant details in what he or she observes (some grounded theory studies are exceptions, for reasons you will discover shortly). And the researcher must be adept at wading through huge amounts of data and finding a meaningful order in what, to someone else, might appear to be chaos. For these reasons, a qualitative study can be a challenging task indeed. It is definitely *not* the approach to take if you're looking for quick results and easy answers.

When to Choose a Qualitative Approach

Qualitative research studies typically serve one or more of the following purposes (Peshkin, 1993):

- *Description.* They can reveal the multifaceted nature of certain situations, settings, processes, relationships, systems, or people.
- *Interpretation.* They enable a researcher to (a) gain new insights about a particular phenomenon, (b) develop new concepts or theoretical perspectives about the phenomenon, and/or (c) discover problems that exist within the phenomenon.
- *Verification.* They allow a researcher to test the validity of certain assumptions, claims, theories, or generalizations within real-world contexts.
- *Evaluation.* They provide a means through which a researcher can judge the effectiveness of particular policies, practices, or innovations.

As a general rule, qualitative studies do *not* allow the researcher to identify cause-and-effect relationships—to answer questions such as What caused what? or Why did such-and-such happen? You will need quantitative research, especially experimental studies, to answer questions of this kind.

Qualitative Research Designs

In this section, we describe five common qualitative research designs. We give you enough information to help you determine whether one of these approaches might be suitable for your research question, and we briefly describe the specific nature of the method, data analysis, and research report for each design. Later in the chapter, we discuss data collection strategies and data analysis strategies that are more broadly applicable to qualitative designs.

A single chapter cannot cover everything you would need to know to carry out a solid qualitative research project. Should you choose to conduct a qualitative study, we urge you to take advantage of the resources listed in the “For Further Reading” section at the end of the chapter.

Remember, too, that of all the designs we describe in this book, qualitative research methods are the least prescriptive (Eisner, 1998). There are no magic formulas, no cookbook recipes for conducting a qualitative study. This book, as well as any others you may read, can give you only general guidelines based on the experiences of those qualitative researchers who have gone before you. In a qualitative study, the specific methods you use will ultimately be constrained only by the limits of your imagination.

Case Study

In a case study—sometimes called *idiographic research*—a particular individual, program, or event is studied in depth for a defined period of time. For example, a medical researcher might study the nature, course, and treatment of a rare illness for a particular patient. An educator might study and analyze the instructional strategies that a master teacher uses to teach high school history. A political scientist might study the origins and development of a politician’s campaign as he or she runs for public office. Case studies are common not only in medicine, education, and political science, but also in law, psychology, sociology, and anthropology.

Sometimes researchers focus on a single case, perhaps because its unique or exceptional qualities can promote understanding or inform practice for similar situations. At other times researchers study two or more cases—often cases that are either similar or different in certain key ways—to make comparisons, build theory, or propose generalizations; such an approach is called a *multiple or collective case study*.

A case study may be especially suitable for learning more about a little known or poorly understood situation. It can also be appropriate for investigating how an individual or program changes over time, perhaps as the result of certain conditions or interventions. In either circumstance, it is useful for generating or providing preliminary support for hypotheses. Its major weakness is that, especially when only a single case is involved, we cannot be sure that the findings are generalizable to other situations.

Method. In a case study, the researcher collects extensive data on the individual(s), program(s), or event(s) on which the investigation is focused. These data often include observations, interviews, documents (e.g., newspaper articles), past records (e.g., previous test scores), and audiovisual materials (e.g., photographs, videotapes, audiotapes). In many case studies, the researcher may spend an extended period of time on site and interact regularly with the person or people being studied.

The researcher also records details about the context surrounding the case, including information about the physical environment and any historical, economic, and social factors that have bearing on the situation. By identifying the context of the case, the researcher helps others who later read the research report to draw conclusions about the extent to which the study’s findings might be generalizable to other situations.

Data analysis. Data analysis in a case study typically involves the following steps (Creswell, 2007; Stake, 1995):

1. *Organization of details about the case.* The specific “facts” about the case are arranged in a logical (e.g., chronological) order.

2. *Categorization of data.* Categories are identified to help cluster the data into meaningful groups. (For instance, a researcher studying the course of a political campaign might think in terms of "campaign strategies," "fund-raising activities," "news media accounts," "setbacks," etc.)
3. *Interpretation of single instances.* Specific documents, occurrences, and other bits of data are examined for the specific meanings that they might have in relation to the case.
4. *Identification of patterns.* The data and their interpretations are scrutinized for underlying themes and other patterns that characterize the case more broadly than a single piece of information can reveal.
5. *Synthesis and generalizations.* An overall portrait of the case is constructed. Conclusions are drawn that may have implications beyond the specific case that has been studied.

Especially when only a single case is studied, any generalizations made are, of course, tentative and must await further support from other studies—perhaps from additional case studies, other kinds of qualitative studies, or experimental research.

A case study researcher often begins the data analysis process during data collection; preliminary conclusions are likely to influence the kinds of data he or she seeks out and collects in later parts of the study. Ultimately the researcher must look for convergence (*triangulation*) of the data: Many separate pieces of information must all point to the same conclusion.

The research report. If you conduct a case study, you will probably want to include the following in your report:

1. *A rationale for studying the case.* Explain why the case was worthy of in-depth study—in other words, how it will significantly advance human beings' knowledge about some aspect of the world.
2. *A detailed description of the facts related to the case.* Describe the specific individual(s), program(s), or event(s) you studied, as well as the setting and any other uncontested facts about the case. Your description should be as thorough and objective as possible.
3. *A description of the data you collected.* Tell your readers what observations you made, whom you interviewed, what documents you examined, and so on.
4. *A discussion of the patterns you found.* Describe any trends, themes, personality characteristics, and so on, that the data suggest. At this point, you are going beyond the facts themselves to your *interpretation* of the facts. Support each pattern you identify with sufficient evidence to convince the reader that the pattern does, in fact, accurately portray the data. If some data contradict the patterns you propose, however, you should describe those as well. *Even though you are interpreting as well as reporting data, you want to present as complete and unbiased an account of the case as you possibly can.*
5. *A connection to the larger scheme of things.* In some way, you need to answer the question, So what? In what way does the case study contribute to our collective knowledge about some aspect of the world or human experience? The connection(s) you make here might take one or more of several forms. You might compare the case with other, previously reported cases and note similarities and dissimilarities. You might argue that the case either supports or disconfirms an existing hypothesis or theory. Or you might use the case to support your contention that a particular intervention—perhaps a medical treatment, teaching method, or campaign strategy—can be a highly effective one.

Ethnography

In a case study, the researcher looks in considerable depth at a particular person, program, or event. In contrast, in an *ethnography*, the researcher looks in depth at an *entire group*—more specifically, a group that shares a common culture. (The word *ethnography* comes from *ethnos*, Greek for "a nation or other close-knit group of people," and *graph*, "something written or recorded.") The ethnographic researcher studies a group in its natural setting for a lengthy time period, often several months or several years. The focus of investigation is on the everyday behaviors of the people in the group (e.g., interactions, language, rituals), with an intent to identify

cultural norms, beliefs, social structures, and other patterns. Ideally the ethnographic researcher identifies not only explicit cultural patterns—those readily acknowledged by group members or easily observable in objects or behaviors—but also *implicit* patterns—those beliefs and assumptions that have such a below-the-surface, taken-for-granted quality that even group members aren't always consciously aware of them.

Ethnographies were first used in cultural anthropology, but they are now seen in sociology, psychology, education, and marketing research as well. The conception of the type of “culture” that can be studied has also changed over time: Whereas ethnographies once focused on long-standing cultural groups (e.g., people living on the island of Samoa), more recently they have been used to study such “cultures” as those of adult work environments, elementary school classrooms, violent adolescent groups, and Internet-based communities (e.g., Bender, 2001; Kozinets, 2010; McGibbon, Peter, & Gallop, 2010; Mehan, 1979).¹

An ethnography is especially useful for gaining an understanding of the complexities of a particular sociocultural group. It allows considerable flexibility in the methods used to obtain information, which can be either an advantage (to the astute researcher who knows what to look for) or a disadvantage (to the novice who may be overwhelmed and distracted by unimportant details). Hence, if you decide that an ethnography is the approach most suitable for your research problem, we urge you to get a solid grounding in cultural anthropology before you venture into the field (Creswell, 2007).

Method. Site-based fieldwork is the *sine qua non*—the essence—of any ethnography. Prolonged engagement in the group's natural setting gives the researcher time to observe and record processes that would be almost impossible to learn about by using any other approach.

The first step in an ethnographic study is to gain access to a site appropriate for answering the researcher's general research problem or question. Ideally, the site should be one in which the researcher is a “stranger” and has no vested interest in the outcome of the study. A site that the researcher knows well (perhaps one that involves close acquaintances) may be more accessible and convenient, but by being so close to the situation, the researcher may have trouble looking at it with sufficient detachment to gain a balanced perspective and portray an accurate picture of the processes observed (Creswell, 2007).

To gain access to a site, the researcher must often go through a gatekeeper, a person who can provide a smooth entrance into the site. This individual might be a tribal chief in a community in a developing country, a principal or teacher in a school or classroom, or a program director at a homeless shelter. Then, after gaining entry into the site, the researcher must establish rapport with and gain the trust of the people being studied. At the same time, the researcher must be open about why he or she is there. The principle of *informed consent* described in Chapter 4 is just as essential in an ethnography as it is in any other type of research.

Initially, the researcher casts a broad net, intermingling with everyone and getting an overall sense of the social and cultural context. Gradually, the researcher identifies key informants who can provide information and insights relevant to the research question and can facilitate contacts with other helpful individuals.

In some ethnographic studies, the researcher engages in **participant observation**, becoming immersed in the daily life of the people. In fact, over the course of the study, the researcher's role may gradually change from “outsider” to “insider.” The advantage here is that the researcher might gain insights about the group and its behaviors that could not be obtained in any other way. The disadvantage is that he or she may become so emotionally involved as to lose the ability to assess the situation accurately. In some situations, the researcher may even “go native,” joining the group and therefore becoming unable to complete the study (Creswell, 2007).

Throughout the fieldwork, the researcher is a careful observer, interviewer, and listener. Furthermore, he or she takes extensive field notes (written either on site at the time or in private later in the day) in the forms of dialogues, diagrams, maps, and so forth. Lengthy conversations and significant events can be recorded using audiotapes and videotapes. The researcher may also

¹ See Kraur and colleagues (2004) for a good discussion of the research possibilities, potential pitfalls, and ethical issues related to studying people's postings on the Internet.

collect artifacts (e.g., tools, ritualistic implements, artistic creations) and records (e.g., accounting ledgers, personal journals, lesson plans) from the group. In order to test hypotheses about a group's unconsciously shared beliefs or assumptions, some ethnographic researchers occasionally conduct *breaching experiments*—that is, they intentionally behave in ways they suspect might violate an unspoken social rule—and observe people's reactions (Mehan & Wood, 1975).

We must caution you that conducting a good ethnography requires both considerable patience and considerable tolerance. One experienced ethnographer has described the process this way:

It requires a great patience under any circumstances for me to "sit and visit." A rather inevitable consequence of being inquisitive without being a talker is that my conversational queries usually prompt others to do the talking. During fieldwork, I make a conscious effort to be sociable, thus providing opportunities for people to talk to me. My work ethic takes over to help me become not only more social but more attentive and responsive, and out pour the informants' stories and explanations so essential to good fieldwork.

(Parenthetically, I note my suspicion that many fieldworkers talk too much and hear too little. They become their own worst enemy by becoming their own best informant. . . .)

. . . I never confront informants with contradictions, blatant disbelief, or shock, but I do not mind presenting myself as a bit dense, someone who does not catch on too quickly and has to have things explained. . . . (Wolcott, 1994, p. 348)

Data analysis. As is true in case study research, data collection and data analysis in an ethnographic study often occur somewhat simultaneously. The analysis typically proceeds in the following sequence (Wolcott, 1994):

1. *Description.* The information obtained is organized into a logical structure. Ethnographers have used a variety of strategies to organize and describe the groups they have observed, including the following:
 - Describing events in chronological order
 - Describing a typical day in the life of the group or of an individual within the group
 - Focusing on a critical event for the group
 - Developing a story, complete with plot and characters
2. *Analysis.* The data are categorized according to their meanings. Patterns, regularities, and critical events are identified.
3. *Interpretation.* The general nature of the group and its practices is inferred from the categories, meanings, and patterns identified in Step 2. Existing theoretical frameworks in one's discipline may lend structure and support during the interpretation process.

Experienced ethnographers readily admit that it is virtually impossible—and perhaps not even desirable—to analyze their data with total objectivity. Wolcott (1994) has proposed that the researcher should instead strive for *rigorous subjectivity*; to achieve this end, he has suggested, the researcher should aim for balance, fairness, completeness, and sensitivity in the final analysis and interpretation of the data. Even so, any researcher conducting an ethnographic study must continually acknowledge—both to self and to others—that personal attitudes and opinions are inevitably creeping into and biasing observations and interpretations.

The research report. The final report for an ethnography may or may not be written in the impersonal style that is typical for many other forms of research. Sometimes it is, instead, a personal, literary narrative designed to engage the reader's attention and interest. Some experienced ethnographers are storytellers as much as they are scholars and researchers.

When you write about an ethnographic study, you will want to include the following information:

1. *An introduction that provides a rationale and context for the study.* Present your research question at the beginning of the report (at this point in the book, such a suggestion should hardly be a surprise!), and describe the nature of your study as it relates both to your question and to one or more theoretical perspectives. More generally, explain why the study was an important one for you to conduct and for others to read about.

2. *A description of the setting and methods.* Describe the group you studied and the methods you used to study it. Go into considerable detail about what people do and say, how they interact with one another, what systems and rituals they have in place, and so on. In other words, engage in the *thick description* described in Chapter 4. Ideally, an ethnographic report should “place the reader figuratively in the setting . . . transport the reader to the actual scene . . . make it real” (Creswell, 2012, p. 472).
3. *An analysis of the group studied.* Describe the patterns and themes you observed (e.g., the stated or unstated norms and conventions for behavior, the social hierarchy, the belief system). Present evidence (e.g., descriptions of artifacts, conversations with group members) to support your claims. To the extent that different group members have different perspectives, you should present those perspectives. Use the participants’ actual words—perhaps including their language or dialect as well—to give your account realism and “life.” Ethnographers give their research participants *voice*: They often use participants’ own words to convey a sense of what it is like to live and work within the group.
4. *A conclusion.* Relate your findings to your research question and to concepts, theories, and previous research in your discipline. In the process, also be explicit about how your background and perspectives may have colored your analysis and conclusions.

Although it may be impossible for you to be completely objective when you describe the group you have studied, you should nevertheless conscientiously try to avoid making judgments. Even small changes in wording can make a significant difference in this regard. For instance, rather than saying, “Only one villager had ever graduated from high school,” you might say, “One villager had graduated from high school” (Wolcott, 1994, pp. 352–353). And rather than saying, “Few pupils were at task,” you might instead say, “Five pupils appeared to be engaged in the assignment” (Wolcott, 1994, p. 353). Such words as *only* and *few* can imply such meanings as “insufficient” or “disappointing”—value judgments that an impartial researcher tries to avoid.

Ultimately you want to construct an in-depth portrait of a sociocultural group in all its complexities. Your portrait should give your readers a better understanding of the culture and help them look at it from the perspectives of the group’s members.

Phenomenological Study

In its broadest sense, the term *phenomenology* refers to a person’s perception of the meaning of an event, as opposed to the event as it exists external to the person. A **phenomenological study** is a study that attempts to understand people’s perceptions, perspectives, and understandings of a particular situation. In other words, a phenomenological study tries to answer the question, What is it like to experience such-and-such? For instance, a researcher might study the experiences of people caring for a chronically or terminally ill relative, living in an abusive relationship, or home-schooling a child.

In some cases, the researcher has had personal experience related to the phenomenon in question and wants to gain a better understanding of the experiences of others. By looking at multiple perspectives on the same situation, the researcher can then make some generalizations of *what something is like* from an insider’s perspective.

Method. Phenomenological researchers depend almost exclusively on lengthy interviews (perhaps 1 to 2 hours in length) with a carefully selected sample of participants. A typical sample size is from 5 to 25 individuals, all of whom have had direct experience with the phenomenon being studied (Creswell, 2007; Polkinghorne, 1989).

The actual implementation of a phenomenological study is as much in the hands of the participants as in the hands of the researcher. The phenomenological interview is often a very unstructured one in which the researcher and participants work together to “arrive at the heart of the matter” (Tesch, 1994, p. 147). The researcher listens closely as participants describe their everyday experiences related to the phenomenon; the researcher must also be alert for subtle yet meaningful cues in participants’ expressions, pauses, questions, and occasional sidetracks.

A typical interview looks more like an informal conversation, with the participant doing most of the talking and the researcher doing most of the listening.

Throughout the data collection process, the researcher suspends any preconceived notions or personal experiences that may unduly influence what the researcher “hears” the participants saying. Such suspension—sometimes called *bracketing* or *epoché*—can be extremely difficult for a researcher who has personally experienced the phenomenon under investigation. Yet it is essential if the researcher is to gain an understanding of the typical experiences that people have had.

Data analysis. The central task during data analysis is to identify common themes in people’s descriptions of their experiences. After transcribing the interviews, the researcher typically takes steps such as the following (e.g., Creswell, 2007):

1. *Identify statements that relate to the topic.* The researcher separates relevant from irrelevant information in the interview and then breaks the relevant information into small segments (e.g., phrases or sentences) that each reflect a single, specific thought.
2. *Group statements into “meaning units.”* The researcher groups the segments into categories that reflect the various aspects (“meanings”) of the phenomenon as it is experienced.
3. *Seek divergent perspectives.* The researcher looks for and considers the various ways in which different people experience the phenomenon.
4. *Construct a composite.* The researcher uses the various meanings identified to develop an overall description of the phenomenon as people typically experience it.

The final result is a general description of the phenomenon as seen through the eyes of people who have experienced it firsthand. The focus is on common themes in the experience but also with consideration of diversity in the individuals and settings studied.

The research report. There is no specific structure for reporting a phenomenological study. As is true for virtually any form of research, you will want to present the research problem or question, describe your methods of data collection and analysis, draw a conclusion about the phenomenon you have studied (in the form of a composite of your participants’ experiences), relate your findings to an existing body of theory and research, and discuss any practical implications of your findings. Your report should be sufficiently vivid that your readers come away feeling that “I understand better what it is like for someone to experience that” (Polkinghorne, 1989, p. 46).

Grounded Theory Study

Of all the research designs we describe in this book, a **grounded theory study** is the one *least* likely to begin from a particular theoretical framework. On the contrary, the major purpose of a grounded theory approach is to *begin with the data and use them to develop a theory*. The term *grounded* refers to the idea that the theory that emerges from the study is derived from and rooted in data that have been collected in the field rather than taken from the research literature. Grounded theory studies are especially helpful when current theories about a phenomenon are either inadequate or nonexistent.²

Typically, a grounded theory study focuses on a *process* related to a particular topic—including people’s actions and interactions—with the ultimate goal of developing a theory about that process. The approach has its roots in sociology (Glaser & Strauss, 1967) but is now also used in such fields as anthropology, geography, education, nursing, psychology, and social work. It has been used effectively for a wide range of topics—for instance, to study children’s eating habits, college students’ thoughts and feelings during classroom discussions, and workers’ stress levels in public service agencies (Do & Schallert, 2004; Kime, 2008; Skagert, Delle, Eklöf, Pousette, & Ahlberg, 2008):

²Some researchers associate grounded theory studies with a particular method of data analysis—in particular, that of Corbin and Strauss (2008; Strauss and Corbin, 1990)—and suggest the term *emergent theory* as a broader, less prescriptive label for this approach (e.g., Jaccard & Jacoby, 2010).

Virtually all experts agree that a grounded theory researcher should have a firm grasp of general concepts and theoretical orientations in his or her discipline as a whole; hence, an in-depth literature review early in the process is essential. However, experts disagree about whether the researcher should look closely at previous findings *directly related to the present research problem* before collecting and analyzing data. For example, Glaser (1978) has argued that too much advance knowledge of earlier research regarding a topic may limit a researcher's ability to be open-minded about how to analyze and interpret his or her own data. In contrast, many others suggest that the advantages of conducting a relatively thorough literature review outweigh the disadvantages; in particular, previous works and writings about a topic can often help a researcher think more clearly and insightfully about the data collected (e.g., Hesse-Biber, 2010; Jaccard & Jacoby, 2010). Our own advice is to learn as much as you can about your research topic through a thorough review of the related literature but *to refrain from forming specific hypotheses about what you yourself might find*.

Method. As is true for the qualitative designs previously described, data collection is field-based, flexible, and likely to change over the course of the study. Interviews typically play a major role in data collection, but observations, documents, historical records, videotapes, and anything else of potential relevance to the research question might also be used. The only restriction is that the data collected *must* include the perspectives and voices of the people being studied (Charmaz, 2002, 2006; Corbin & Strauss, 2008).

Data analysis begins almost immediately, at which point the researcher develops *categories* to classify the data. Subsequent data collection is aimed at *saturating* the categories—in essence, learning as much about them as possible—and at finding any disconfirming evidence that may suggest revisions in the categories identified or in interrelationships among them. This process of moving back and forth between data collection and data analysis, with data analysis driving later data collection, is sometimes called the *constant comparative method*. The theory that ultimately evolves is one that includes numerous concepts and interrelationships among those concepts; in other words, it has *conceptual density* (Schram, 2006).

Data analysis. Experts disagree about the best approach to analyzing data in a grounded theory study (e.g., see Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1992). One widely used approach is that proposed by Corbin and Strauss (2008; Strauss and Corbin, 1990; also see Neuman, 2011), who suggest the following steps:

1. *Open coding.* The data are divided into segments and then scrutinized for commonalities that reflect categories or themes. After the data are categorized, they are further examined for *properties*—specific attributes or subcategories—that characterize each category. In general, open coding is a process of reducing the data to a small set of themes that appear to describe the phenomenon under investigation.
2. *Axial coding.* Interconnections are made among categories and subcategories. Here the focus is on determining more about each category in terms of
 - The conditions that give rise to it
 - The context in which it is embedded
 - The strategies people use to manage it or carry it out
 - The consequences of those strategies

The researcher moves back and forth among data collection, open coding, and axial coding, continually refining the categories and their interconnections—and perhaps combining or subdividing some of the categories—as additional data are collected.

3. *Selective coding.* The categories and their interrelationships are combined to create a *story line* that describes “what happens” in the phenomenon being studied.
4. *Development of a theory.* A theory, in the form of a verbal statement, visual model, or series of hypotheses, is offered to explain the phenomenon in question. The theory depicts the evolving nature of the phenomenon and describes how certain conditions lead to certain actions or interactions, how those actions or interactions lead to *other* actions, and so on, with the typical sequence of events being laid out. No matter what form the theory takes, *it is based entirely on the data collected*.

We have described these steps only in the most general terms. Corbin and Strauss's *Basics of Qualitative Research* (2008) offers more specific guidance and some helpful examples.

The steps just listed provide a structured and relatively systematic way of boiling down a huge body of data into a concise conceptual framework that describes and explains a particular phenomenon; as such, it has a semblance of rigor and objectivity that many researchers find appealing. Yet in some experts' eyes, these steps are *too* structured, to the point that they limit a researcher's flexibility and may predispose the researcher to identify categories prematurely (Charmaz, 2000; Glaser, 1992). Should you decide that a grounded theory study is the best way to tackle your research problem, we urge you to read diverse descriptions of the form that such a study might take (e.g., see Charmaz, 2000, 2002, 2006; Corbin & Strauss, 2008; Glaser, 1992).

The research report. The style of writing used to describe a grounded theory study is typically objective and impersonal. Building on Creswell's (2007) recommendations, we suggest that you include the following in your report:

1. *A description of the research question.* Describe your general research problem and explain how you delineated it more precisely over the course of the study.
2. *A review of the related literature.* Do *not* use the literature to provide the specific categories or themes for coding your data, but *do* use it to provide a rationale and context for your study.
3. *A description of your methodology and data analysis.* Describe the approach you took at the beginning of the study and how your approach evolved over time. Outline the nature of the sample and setting, as well as the specific methods (interviews, observations, etc.) you used. Explain the categories and properties you identified. Describe how your data collection was driven by your data analysis.
4. *A presentation of your theory.* Present the theory you have developed in a verbal or visual form, or, even better, both verbally and visually. Use some of your actual data (e.g., excerpts from interviews) to illustrate and support the theory.
5. *A discussion of implications.* Show how your theory is similar to or dissimilar from other theoretical perspectives. Explain how it relates to existing knowledge about the topic. Discuss potential implications of the theory for practice or future research.

Content Analysis

A **content analysis** is a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes, or biases. Content analyses are typically performed on *forms of human communication*, including books, newspapers, personal journals, legal documents, films, television, art, music, videotapes of human interactions, transcripts of conversations, and Internet blog and bulletin board entries.³ For instance, a researcher might use a content analysis to determine what religious symbols appear in works of art, in what various activities teachers spend their time in the classroom, or what attitudes are reflected in the speeches or newspaper articles of a particular era in history. As you might infer from these examples, content analyses are found in a wide variety of disciplines, including psychology, history, art, education, journalism, and political science.

Of the five designs described in this chapter, a content analysis involves the greatest amount of planning at the front end of the project. The researcher typically defines a specific research problem or question at the very beginning (e.g., "Do contemporary children's books reflect traditional gender stereotypes?", "What religious symbols appeared in early Byzantine architecture, and with what frequency, during the years 527–867?"). The researcher also identifies the sample to be studied and the method of analysis early in the process.

Content analyses are not necessarily stand-alone designs. For example, a systematic content analysis might be an integral part of the data analysis in a phenomenological study (e.g., see Wennick, Lundqvist, & Hallström, 2009). A content analysis might also be used to flesh out the

³Again we refer you to Kraut and colleagues (2004) regarding ethical issues related to studying people's postings on the Internet.

complex, multidimensional aspects of a descriptive or experimental study, resulting in a *mixed-methods design* with both qualitative and quantitative elements (see Chapter 10).

Method. As a general rule, a content analysis is quite systematic, and measures are taken to make the process as objective as possible. The following steps are typical:

1. The researcher identifies the specific body of material to be studied. If this body is relatively small, it is studied in its entirety. If it is quite large (e.g., if it consists of all newspaper articles written during a particular time period), a sample (perhaps a random sample) is selected.
2. The researcher defines the characteristics or qualities to be examined in precise, concrete terms. The researcher may identify specific examples of each characteristic as a way of defining it more clearly.
3. If the material to be analyzed involves complex or lengthy items (e.g., works of literature, transcriptions of conversations), the researcher breaks down each item into small, manageable segments that are analyzed separately.
4. The researcher scrutinizes the material for instances of each characteristic or quality defined in Step 2. When judgments are entirely objective (e.g., when the study involves looking for the appearance of certain words in a text), only one judge, or *rater*, is necessary. When judgments are more subjective (e.g., when the study involves categorizing discrete teacher behaviors as reflecting various teaching activities), two or three raters are typically involved, and a composite of their judgments is used.

Data analysis. Almost invariably, one crucial step in a content analysis is to tabulate the frequency of each characteristic found in the material being studied. Thus, virtually any content analysis is quantitative as well as qualitative. In some situations, appropriate statistical analyses are performed on the frequencies or percentages obtained to determine whether significant differences exist relevant to the research question. The researcher then uses such tabulations and statistical analyses to interpret the data as they reflect on the problem under investigation.

The research report. If you conduct a content analysis, either as your sole methodology or in combination with other designs, you should include the following in your research report:

1. *A description of the body of material you studied.* Describe the overall body of material you wanted to investigate and any sampling procedures that you used to select specific items or artifacts from it.
2. *Precise definitions and descriptions of the characteristics you looked for.* Define each characteristic precisely enough that another researcher could replicate your study. Consider using specific examples from your data to illustrate each characteristic.
3. *The coding or rating procedure.* Describe the procedure that the rater(s) used to evaluate the material and, if applicable, how multiple ratings were combined. If two or more raters were involved, also report the consistency with which they coded the data (see the discussions of *interrater reliability* and *correlation coefficient* in Chapters 4 and 11, respectively).
4. *Tabulations for each characteristic.* Report frequencies or percentages (or both) for each characteristic. Consider using tables or graphs as a way of reporting this information in a concise, organized fashion.
5. *A description of patterns that the data reflect.* Identify themes or trends in the material (e.g., as reflected in your tabulations).

Table 6.1 summarizes the nature of the five designs described in the preceding sections. Keep in mind, however, that these designs are not necessarily as distinctly different as the table might indicate. Any particular study may include elements of two or more qualitative designs. Remember, much qualitative research is, by its very nature, flexible and open-ended, and so it may continue to evolve over the course of a project. To the extent that your research question leads you to believe that two or more designs are equally relevant to your purpose, think creatively about how you might combine them into a single study.

TABLE 6.1 Distinguishing characteristics of different qualitative designs

			<i>Methods of Data Collection</i>	<i>Methods of Data Analysis</i>
Case study	To understand one person or situation (or perhaps a very small number) in great depth	One case or a few cases within its/their natural setting	<ul style="list-style-type: none"> • Observations • Interviews • Appropriate written documents and/or audiovisual material 	<ul style="list-style-type: none"> • Categorization and interpretation of data in terms of common themes • Synthesis into an overall portrait of the case(s)
Ethnography	To understand how behaviors reflect the culture of a group	A specific field site in which a group of people share a common culture	<ul style="list-style-type: none"> • Participant observation • Structured or unstructured interviews with "informants" • Artifact/document collection 	<ul style="list-style-type: none"> • Identification of significant phenomena and underlying structures and beliefs • Organization of data into a logical whole (e.g., chronology, typical day)
Phenomenological study	To understand an experience from the participants' points of view	A particular phenomenon as it is typically lived and perceived by human beings	<ul style="list-style-type: none"> • In-depth, unstructured interviews • Purposeful sampling of 5–25 individuals 	<ul style="list-style-type: none"> • Search for <i>meaning units</i> that reflect various aspects of the experience • Integration of the meaning units into a seemingly typical experience
Grounded theory study	To derive a theory from data collected in a natural setting	A process, including human actions and interactions and how they result from and influence one another	<ul style="list-style-type: none"> • Interviews • Any other relevant data sources 	<ul style="list-style-type: none"> • Prescribed and systematic method of coding the data into categories and identifying interrelationships • Continual interweaving of data collection and data analysis • Construction of a theory from the categories and interrelationships
Content analysis	To identify the specific characteristics of a body of material	Any verbal, visual, or behavioral form of communication	<ul style="list-style-type: none"> • Identification and possible sampling of the specific material to be analyzed • Coding of the material in terms of predetermined and precisely defined characteristics 	<ul style="list-style-type: none"> • Tabulation of the frequency of each characteristic • Descriptive or inferential statistical analyses as needed to answer the research question

Such flexibility should *not*, however, lead you to believe that you can conduct a qualitative research project in a sloppy, poorly-thought-through manner. On the contrary, the flexible nature of a qualitative study makes it just that much more challenging, especially for the novice researcher. *For anything you do in a qualitative study, you must have a definite rationale and a distinct purpose, and you must keep your overall goal—to answer your research question—clearly in sight at all times.*

CONCEPTUAL ANALYSIS EXERCISE Choosing a Qualitative Research Design

Following are brief summaries of five potential research projects. Identify the qualitative methodology that is probably most appropriate for each project. The answers appear after the "For Further Reading" list at the end of the chapter.

1. In an effort to learn the nature and appeal of long-standing social groups among American men, a researcher plans to spend a nine-month period with a local chapter of the Benevolent and Protective Order of Elks. By observing and interacting with the

- Elks, he hopes to observe the chapter's meetings, rituals, and charitable activities and to discover the chapter's beliefs, values, goals, and interpersonal dynamics.
2. A researcher wants to determine to what degree and in what ways television commercials might portray men and women in traditionally gender-stereotypical ways (e.g., how often men versus women are shown cleaning house, how often men versus women are making important business decisions).
 3. In order to learn how grassroots political parties emerge and develop over time, a researcher wants to study the origins and evolution of three recently established "Tea Party" groups, one in her own state and two in neighboring states.
 4. A researcher is intrigued by Asperger syndrome, a cognitive disability in which people have average or above-average intelligence and language skills but poor social skills and little or no ability to interpret other people's nonverbal social cues (body language, etc.). The researcher wonders what it must be like to be an adolescent with this syndrome—how a teenager is apt to feel about having few or no friends, being regularly excluded from classmates' social activities, and so on.
 5. A researcher wants to determine how doctors, nurses, and other hospital staff members coordinate their actions when people with life-threatening traumatic injuries arrive at the emergency room. The researcher can find very little useful research on this topic in professional journals.

Collecting Data in Qualitative Research

As you have seen, qualitative researchers often use multiple forms of data in any single study. They might use observations, interviews, objects, written documents, audiovisual materials, electronic entities (e.g., e-mail messages, Internet websites), and anything else that can help them answer their research question. Furthermore, many qualitative studies are characterized by an **emerging design**: Data collected early in the investigation often influence the kinds of data the researcher subsequently gathers.

In qualitative research, the potential sources of data are limited only by the researcher's open-mindedness and creativity. For example, in a school setting, a researcher might consider where various students are seated in the lunch room, what announcements are posted on the walls, or what messages are communicated in graffiti (Eisner, 1998). In an ethnographic study of a cultural group, a researcher might ask one or more participants to keep a daily journal or to discuss the content and meaning of photographs and art objects (Creswell, 2007).

Regardless of the kinds of data involved, data collection in a qualitative study takes a great deal of time. The researcher should record any potentially useful data thoroughly, accurately, and systematically, using field notes, audiotapes, sketches, photographs, or some combination of these. As they collect data, many qualitative researchers also begin jotting notes—sometimes called memos—about their initial interpretations of what they are seeing and hearing.

It is essential that data collection methods be consistent with the ethical principles presented in Chapter 4. The people being studied must know the nature of the study and be willing participants in it (this is *informed consent*), and any data collected should not be traceable back to particular individuals (thus maintaining participants' *right to privacy*). One common way of keeping personal data confidential is to assign various pseudonyms to different participants and to use those pseudonyms both during data collection and in the final research report.

Common to all qualitative studies is a need to identify an appropriate *sample* from which to acquire data. Another feature that most qualitative studies share (content analyses excepted) is heavy reliance on *observations, interviews, or both*, as a source of data. We now look at each of these three topics more closely.

Sampling

Qualitative researchers typically draw their data from many sources—not only from a variety of people but perhaps also from objects, text materials, and audiovisual and electronic records. The particular entities they select for analysis comprise their **sample**, and the process of selecting them is called **sampling**.

Only rarely—for instance, when a researcher conducts a content analysis of a small group of items—can a researcher look at *everything* that has potential relevance to the research problem. More typically, the researcher must be choosy about the data to gather and analyze and, as a result, will get an incomplete picture of the phenomenon in question. One experienced qualitative researcher has described the situation this way:

Whether observing, interviewing, experiencing, or pursuing some combination of strategies, you cannot be everywhere at once or take in every possible viewpoint at the same time. Instead . . . you develop certain perspectives by engaging in some activities or talking to certain people rather than others. . . . You build assertions toward the never-quite-attainable goal of “getting it right,” approximating realities but not establishing absolutes.

Your task, both derived from and constrained by your presence, is thus inherently interpretive and incomplete. The bottom line is that there is no bottom line: It is not necessary (or feasible) to reach some ultimate truth for your study to be credible and useful. (Schram, 2006, p. 134)

How you identify your sample must depend on the research question(s) you want to answer. If you want to draw inferences about an entire population or body of objects, you must choose a sample that can be presumed to *represent* that population or body. Ideally, this sample is chosen through a completely random selection process or through a process that incorporates appropriate proportions of each subgroup within the overall group of people or objects. We consider several such sampling strategies in our discussion of descriptive quantitative research in Chapter 8. (Truly effective researchers often draw on methodologies from diverse research traditions.)

Often, however, qualitative researchers are intentionally *nonrandom* in their selection of data sources. Instead, their sampling is *purposeful*: They select those individuals or objects that will yield the most information about the topic under investigation. For example, grounded theory researchers tend to engage in **theoretical sampling**, choosing data sources that are most likely to help them develop a theory of the process in question. Later, they may employ **discriminant sampling**, returning to particular data sources that can help them substantiate the theory.

A novice qualitative researcher might ask: How large should my sample be? How much is enough? There are no easy, cut-and-dried answers to these questions, but we offer three suggestions that might be helpful in decision making:

1. Be sure that the sample includes not only seemingly “typical” but also seemingly “non-typical” examples.
2. When a power hierarchy exists—as it does in the workplace and in many clubs and communities—sample from various levels in the hierarchy. For example, in the workplace, interview both bosses and employees; in a club or community, interview not only highly active, influential members but also less involved individuals (e.g., see Becker, 1970).
3. Actively look for cases that can potentially discredit emerging hypotheses and theories (see the description of *negative case analysis* in Chapter 4).

Ideally the sample should provide information not only about how things are *on average* but also about how much *variability* exists in the phenomenon under investigation.

Observations

The qualitative researcher may make observations either as a relative outsider or, especially in the case of an ethnography, as a participant observer. Unlike observations conducted in quantitative studies (see Chapter 8), observations in a qualitative study are intentionally unstructured and free-flowing: The researcher shifts focus from one thing to another as new and potentially

significant objects and events present themselves. The primary advantage of conducting observations in this manner is flexibility: The researcher can take advantage of unforeseen data sources as they surface.

Such an approach has its drawbacks, of course. The researcher (especially a novice researcher) won't always know what things are most important to look for, especially at the beginning, and so may waste considerable time observing and recording trivialities while overlooking entities that are more central to the research question. A second disadvantage is that *by his or her very presence*, the researcher may influence what people say and do or may change how significant events unfold (recall the discussion of *reactivity* in Chapter 4).

Recording events can be problematic as well. Written notes are often insufficient to capture the richness of what one is observing. Yet audiotapes and videotapes aren't always completely dependable either. Background noises may make tape-recorded conversations only partially audible. A video camera can capture only the events happening in a small, focused area. And the very presence of tape recorders and video cameras may make some participants uncomfortable.

If you decide to conduct observations as part of a qualitative study, we offer these suggestions:

1. Before you begin your study, experiment with various data recording strategies (field notes, audiotapes, videotapes), identify the particular methods that work best for you, and practice using them in other contexts.
2. When you begin your observations, have someone introduce you to the people you are watching. At this point, you should briefly describe your study and get participants' informed consent.
3. As you observe, remain relatively quiet and inconspicuous, yet be friendly to anyone who approaches you. You certainly don't want to discourage people from developing relationships with you and—perhaps later—taking you into their confidence.
4. If you take field notes, consider dividing each page of your notebook or word processing document into two columns. Use the left column to record your observations (making notes, drawing maps, etc.), and use the right column to write your preliminary interpretations—the *memos* we spoke of earlier.

The last suggestion is a particularly important one. *It is essential that you not confuse your actual observations with your interpretations of them*, for two reasons. First, you need to be as objective as you can in the records you keep. And second, your interpretations of what you have seen and heard are apt to change over the course of the study.

IEWS

Interviews can yield a great deal of useful information. The researcher can ask questions related to any of the following (Silverman, 1993):

- Facts (e.g., biographical information)
- People's beliefs and perspectives about the facts
- Feelings
- Motives
- Present and past behaviors
- Standards for behavior (i.e., what people think *should* be done in certain situations)
- Conscious reasons for actions or feelings (e.g., why people think that engaging in a particular behavior is desirable or undesirable)

However, keep in mind that, especially when a researcher asks about *past* events, behaviors, and perspectives, interviewees must rely on their memories, and human memory is rarely as accurate as a tape recorder or video recorder might be. In fact, people's memories are subject to considerable distortion: People are apt to recall what *might* or *should* have happened (based on their attitudes or beliefs) rather than what actually *did* happen (e.g., see Brainerd & Reyna, 2005; Schwarz, 1999). And even when people are talking about present circumstances, they aren't always terribly insightful—and sometimes they're intentionally dishonest—about their attitudes, feelings, and motives (Corallo, Sackur, Dehaene, & Sigman, 2008; Uziel, 2010). Thus, the shrewd

researcher will seek to substantiate participants' introspective reports with observations of their behavior and other relevant data (Locke, 2009).

Interviews in a qualitative study are rarely as structured as the interviews conducted in a quantitative study (more about quantitative study interviews in Chapter 8). Instead, they are either open-ended or semistructured, in the latter case revolving around a few central questions. Unstructured interviews are, of course, more flexible and more likely to yield information that the researcher hadn't planned to ask for. Their primary disadvantage is that the researcher gets different information from different people and thus may not be able to compare the responses of various interviewees.

In some cases, a researcher may want to interview several participants simultaneously in a **focus group**. To conduct a focus group, the researcher gathers several people (usually no more than 10 or 12) to discuss a particular issue for 1 to 2 hours. A moderator—someone who may or may not be the researcher—introduces the issues to be discussed, makes sure that no one dominates the discussion, and keeps people focused on the topic. Focus groups are especially useful when time is limited, group members feel comfortable sharing their thoughts and feelings with one another, and the group interaction might be more informative than individually conducted interviews (Creswell, 2007; Neuman, 2011).

PRACTICAL APPLICATION Conducting Interviews in a Qualitative Study

Conducting an informative interview is not as easy as it might seem. In this section we offer guidelines for the novice researcher and then suggest computer technology that can make the task easier.

GUIDELINES

The following suggestions are based partly on our own experiences and partly on guidance offered by experts in qualitative research (Creswell, 2007, 2009; Eisner, 1998; Shank, 2006; Silverman, 1993):

1. *Identify some questions in advance.* Conducting an unstructured interview effectively requires considerable experience and skill: The researcher must sense when the conversation is drifting in an unproductive direction and gently guide it back on course. Novice researchers often have greater success when they prepare a few questions in advance and make sure that all of the questions are addressed at some point during the interview. These questions should, of course, be related to the research questions and overall research problem. As an example, in a qualitative study she conducted for her doctoral dissertation, Debby Zambo examined how children with reading disabilities believe their minds work when they read. She worked with and extensively studied 11 children in grades 5 through 9, interviewing them 10 to 15 times over the course of her investigation. Figure 6.1 presents an excerpt from her dissertation, in which she shows how her interview questions aligned with her research questions.

For any single interview, limit your list of questions to a small number, perhaps five to seven of them. (Although Debby Zambo had many more questions than this, she spread them throughout a dozen or so interviews with each child.) You will find that you won't necessarily need to ask every question explicitly, as the answers to some may emerge while a participant is responding to others.

Ideally, interview questions should encourage people to talk about a topic *without* hinting that they give a *particular* answer. In other words, avoid leading questions. Questions such as "What is going on now?" "What is it like to work here?" and "What's a typical day like?" can stimulate an informative conversation without suggesting that one kind of response is somehow more desirable than another (Shank, 2006).

2. *Consider how participants' cultural backgrounds might influence their responses.* In an effort to ascertain men's beliefs about ideal family size for a research project in what is now Bangladesh, Howard Schuman (1967) asked a seemingly simple question: "Suppose you had no children. How many would you like to have?" Most men responded, "As many as God wills." This

FIGURE 6.1

Example of how a researcher might align interview questions with research questions

From *Uncovering the Conceptual Representations of Students with Reading Disabilities* (pp. 140-142) by D. Zambo, 2003, unpublished doctoral dissertation, Arizona State University, Tempe. Reprinted with permission.

Research Question	Interview Question
<p>1. What do students with reading disabilities think about reading and themselves?</p> <p>a. What are their thoughts about reading?</p> <p>b. What are their ideas about themselves and reading?</p>	<p>What do they think reading is all about?</p> <p>What do they find easy/difficult to read?</p> <p>Who do they think good/poor readers are and what do good/poor readers do?</p> <p>How do you become good/poor at reading?</p> <p>What are they reading?</p> <p>What do they think is easy/difficult to read?</p> <p>What goes on in their head when they read easy/difficult things?</p> <p>What is their activity level (calm/fidgety) when they read?</p> <p>What body parts do they use when they read?</p> <p>How do they think reading has/will impact their lives in the past, present, and future?</p>
<p>2. What emotions are evoked when they read?</p>	<p>Do they get frustrated when they read?</p> <p>What other emotions may be involved when they read?</p> <p>Does believing they can get better at reading help them be a better reader?</p> <p>Does hoping they can get better at reading help them be a better reader?</p> <p>Does wishing they can get better at reading help them be a better reader?</p>
<p>3. What do children with reading difficulties know about the cognitive processes of reading?</p> <p>a. What do they know about attention?</p> <p>b. What do they know about their memory and reading?</p>	<p>What is attention?</p> <p>Do they recognize that they must focus their attention when they read?</p> <p>What do they focus on?</p> <p>Why do they focus on that?</p> <p>Do they have difficulty with attention?</p> <p>If so, what do they do?</p> <p>Is their attention easy or difficult to capture when they read?</p> <p>Can they sustain their attention enough when they read?</p> <p>What do they do to sustain their attention?</p> <p>How consistent is their attention?</p> <p>What do they do to make their attention consistent?</p> <p>Is their attention better on some days and when is it better?</p> <p>What do they do if their attention is better on some days?</p> <p>What distracts them when they read?</p> <p>Do ideas and memories pop into their heads and distract them when they read?</p> <p>What do they know about memory in general?</p> <p>What do they do to put things into their memory?</p> <p>What do they do to keep things in their memory?</p> <p>How do they remember what they read?</p> <p>How do they remember/understand what they have read?</p>

(continued)

FIGURE 6.1

Continued

Research Question	Interview Question
4. What do students with dyslexia know about the brain and reading?	Do they understand the brain is interconnected with external body parts? Analogy—Can they create an analogy for the brain? Metacognition—Thinking about thinking—What do they wonder about their mind/brain? [What do they] think about their thinking? Can they differentiate mental entities (thoughts, dreams, and memories) from close imposters?
5. What do children with dyslexia know about their dyslexic mind?	How do their brains work when they read? Are their brains like or different from other's brains when they read? Do they listen/see/feel things in their brains when they read? How do they do this? Do they think their minds are active when they read? What happens in their minds when they read? What do they do to make this happen? Are they aware of what is in their minds as they read? Are their minds excited when they read? How do things get from a book to their brains?

response reflected a widespread cultural tradition at the time: to leave one's fate in the hands of God, or at least to *say* that one's fate is in God's hands. Wisely, Schuman revised the question: "Suppose you had no children. If God wished to give you as many children as you wished, how many would you wish for?" (p. 22). This revision yielded responses that were far more useful in addressing Schuman's research question.

As Schuman discovered, participants' cultural backgrounds can influence their interview responses in ways you haven't necessarily anticipated. For instance, if you are interviewing people from Asian cultures, you should be aware that they are less likely to brag about their individual accomplishments than Westerners are (Heine, 2007). A naive researcher might erroneously conclude that Asian individuals are less productive than Western individuals, when in reality Asian individuals are merely less *boastful* than their Western counterparts.

Social scientists have only begun to identify the many ways in which people from various cultural groups may respond differently in interview situations. Thus we can give you only general, nonprescriptive advice here: Be sensitive to the fact that culture may play a significant role in how your participants interpret and respond to your questions, and experiment with multiple ways of asking for the kinds of information you ultimately want to obtain.

3. *Make sure your interviewees are representative of the group.* You should choose people whom you expect to give you typical perceptions and perspectives. But as noted in the earlier discussion of sampling, you may also intentionally pick a few "extremists" or other exceptional individuals; however, when you do so, you should identify them as such in your notes.

4. *Find a suitable location.* In theory, you can conduct an interview anywhere that people are willing to talk to you. But you will probably have a more successful interview if you find a quiet place where you and your interviewee are unlikely to be distracted or interrupted.

5. *Get written permission.* Explain the nature of the study and your plans for using the results. Ask the participant (or, in the case of a child, the participant's parent or legal guardian) to sign an informed consent form. Offer to provide an abstract or copy of the research report once you have completed the study.

6. *Establish and maintain rapport.* Begin the conversation with small talk that can break the ice. Be courteous and respectful at all times. Show genuine interest in what the person has to say.

Interviews in qualitative studies are typically quite informal, to the point where they may appear similar to casual conversation. There is one critical difference between a qualitative

interview and normal dialogue, however: The researcher wants to gain information from the interviewee without also revealing his or her own perspectives. In other words, a critical element of most intimate conversations—disclosure of one's thoughts, beliefs, and feelings—is lopsided, with only one member of the pair doing the disclosing. To maintain rapport and general feelings of closeness and trust, therefore, you must show compassion and interest in other ways, perhaps through body language (smiling, maintaining eye contact, leaning forward) and such neutral encouragements as "Go on" and "What do you mean?" (Shank, 2006).

7. *Focus on the actual rather than on the abstract or hypothetical.* You are more likely to get revealing information if you ask what a person *does or would do in a specific situation*. For example, if you are interviewing a teacher, ask questions about specific teaching strategies rather than about educational philosophy. Otherwise, you might get nothing more than what Eisner (1998) has described as "pious, canned proclamations that seem as though they had been snatched from a third-rate philosophy of education text" (p. 183).

8. *Don't put words in people's mouths.* Let people choose their own way of expressing their thoughts. A good interviewer is, above all, a good listener who lets people say what they want to say in the way they want to say it. Furthermore, a good interviewer recognizes that people may reveal inconsistencies in their recollections, attitudes, and logic: Their perceptions won't necessarily all fit together in a neat little package (Kvale, 1996).

9. *Record responses verbatim.* Whether you use handwritten notes, shorthand, a tape recorder, or laptop computer, capture everything the person says, especially if the interview is an unstructured one. If you suspect that an interviewee may have said something other than what he or she intended to communicate, read or play back the response and ask if it accurately reflects his or her thoughts.

10. *Keep your reactions to yourself.* Although you won't necessarily want to maintain a continual "poker face," you're more likely to get accurate information if you don't show surprise, agreement, or disapproval of what someone tells you.

11. *Remember that you are not necessarily getting the facts.* As confident and convincing as some of your participants may be, you should always treat their responses as *perceptions* rather than as facts.

12. *When conducting a focus group, take group dynamics into account.* Whenever you gather two or more individuals into a single interview, these individuals will rarely act as true equals. Some participants are likely to dominate the conversation. Others may be reluctant to express their views, perhaps because they are shy or feel uncertain about the validity of their perspectives. In most cases, you will get more representative data—and hence more *useful* data—if you make sure that everyone in the group has a chance to answer each question. Accordingly, you should keep your list of questions for a focus group quite short. And if you are recording the focus group session, ask participants to identify themselves by name at the beginning of the session; having them do so will help you identify different speakers when you transcribe the session later on.



Using Technology to Facilitate Data Collection and Transcription

With appropriate hardware and software, most laptops can be configured to serve as audio recorders. And, of course, videos recorded on a camcorder can be easily downloaded to a personal computer. Meanwhile, transcription software, such as HyperTRANSCRIBE, lets you mark key points in a videotaped or audiotaped interview, retrieve desired pieces of information quickly, and slow down what you have recorded so that you can transcribe it more easily. Other software programs will even do your transcribing for you. The capabilities of this software are expanding all the time. We urge you to look at such software as Dragon Dictate, IBM VoiceType Simply Speaking, Naturally Speaking, and ViaVoice to see how their latest versions might make your recording and interviewing tasks easier and less time-consuming.

In some cases, you can conduct qualitative interviews over long distances through various Internet mechanisms, including e-mail, instant messaging, or video conferencing. Keep in

mind, however, that ethical standards don't fly out the window simply because you are conversing with people in cyberspace rather than in the same room. You must still seek participants' (or parents') informed consent, and you must protect participants' privacy. Furthermore, you must ensure that participants have appropriate characteristics and qualifications for your investigation—something that may be difficult to determine if you never see these individuals in the flesh.

Organizing and Analyzing Qualitative Data

As you have undoubtedly realized by this time, there is usually no single “right” way to analyze the data in a qualitative study. The researcher begins with a large body of information and must, through inductive reasoning, sort and categorize it and gradually boil it down to a small set of abstract, underlying themes. Even in content analysis—an approach that, on the surface, may seem quite straightforward and matter-of-fact—the researcher often determines the specific characteristics to be studied only after carefully scrutinizing the body of material in search of potentially meaningful characteristics to identify and count.

In the quantitative designs we examine in Chapters 8 and 9, data analysis and data interpretation are, in large part, two separate steps, with numerical data being mathematically manipulated and statistically analyzed, followed by interpretations of those manipulations and analyses in order to address the original research questions and hypotheses. In most qualitative research, however, data analysis and interpretation are closely interwoven, and both are often enmeshed with data collection as well. Schram (2006) has expressed this idea quite eloquently:

Experiences do not speak for themselves; nor do features within a research setting directly or spontaneously announce themselves as worthy of your attention. As a qualitative fieldworker, you cannot view your task simply as a matter of gathering or generating “facts” about “what happened.” Rather, you engage in an active process of *interpretation*: noting some things as significant, noting but ignoring others as not significant, and missing other potentially significant things altogether. (p. 11)

Creswell (2007) has described a *data analysis spiral* that is, in our view, equally applicable to a wide variety of qualitative studies. Using this approach, you go through the data several times, taking the following steps:

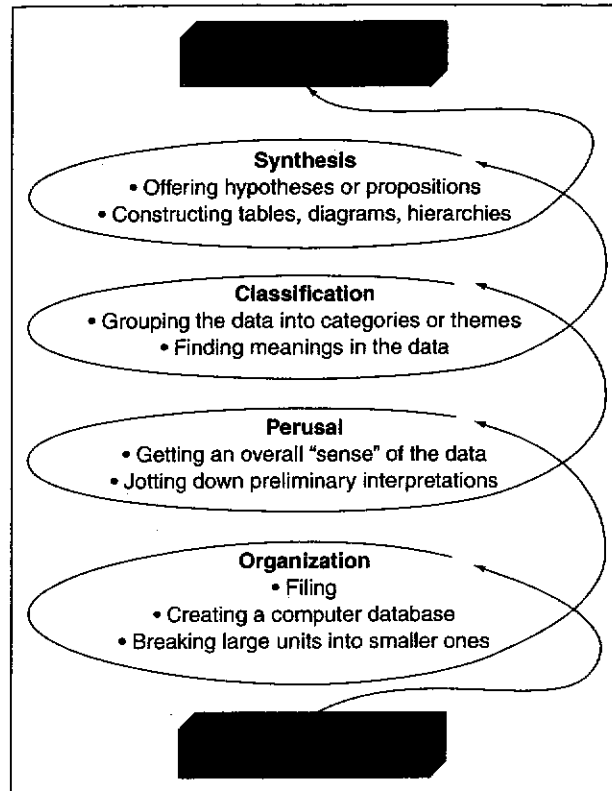
1. Organize the data, perhaps using index cards, manila folders, or a computer database. You may also break down large bodies of text into smaller units, perhaps in the form of stories, sentences, or individual words.
2. Peruse the entire data set several times to get a sense of what it contains as a whole. In the process, you should jot down a few memos that suggest possible categories or interpretations. If your data are in paper form, you might write comments in the margins or use Post-it notes to capture your preliminary thoughts. If your data are in electronic form, you might use the *insert comment* feature available in many software programs, or you might add your initial impressions in a different font or color or, for a spreadsheet or database, in a separate column or field.
3. Identify general categories or themes, and perhaps subcategories or subthemes as well, and then classify each piece of data accordingly. At this point, you should be getting a general sense of patterns—a sense of *what the data mean*.
4. Integrate and summarize the data for your readers. This step might include offering propositions or hypotheses that describe relationships among the categories. It might also involve packaging the data into an organizational scheme such as a table, figure, matrix, or hierarchical diagram.

We depict this spiral graphically in Figure 6.2.

No matter how you proceed, the data analysis for a qualitative study is a complex and time-consuming process. You must wade through a great deal of information, some of which will be

FIGURE 6.2

The data analysis spiral
(based on Creswell, 2007)



useful and some of which will not. Furthermore, the data you obtain are apt to be multifaceted and may simultaneously reflect several distinct meanings.

In a qualitative study, the interpretation of the data will inevitably be influenced by the researcher's biases and values to some extent, reflecting the notion of *researcher as instrument* mentioned earlier. Nevertheless, we urge you to do as much as you can to minimize the extent to which your prior expectations and opinions enter into your final analysis, perhaps by using some or all of the following strategies:

- Collect two or more different kinds of data (e.g., observations, interviews) related to any particular phenomenon.
- Get multiple and varying perspectives on any single issue or event.
- Make a concerted effort to look for evidence that contradicts your hypotheses.
- In your final research report, acknowledge any biases you have, so that your readers can take them into account when reading the report.

Using Computer Databases to Facilitate Data Organization and Interpretation



We authors are guessing that you will use word processing or similar software to record interviews and perhaps some of your other data as well. By storing your data on a computer, you can easily retrieve any piece of information using a relevant keyword, and you can sort your data quickly and in multiple ways. As a precaution against some unforeseen catastrophe (e.g., a flood or fire), you should back up your files on a flash drive or other external storage device that you store in a safe location (e.g., in a safe deposit box or at the home of a trustworthy relative).

We suggest that you also consider using computer software to help you organize and interpret your data. For some studies, a simple spreadsheet program such as Excel may suffice (see Appendix A). Other software programs are especially suited for complex qualitative research studies (e.g., ATLAS.ti, Ethnograph, SuperHyperQual, HyperRESEARCH, Kwalitan, MAXQDA, NVivo). Such programs provide a ready means of storing, segmenting, and organizing lengthy

field notes, and they are designed to help you find patterns in your notes. Typically you can transfer—in computer language, you can *import*—word processing files into the programs; some programs let you include photographs, audiotapes, and videotapes as well. Any one of these programs may take some study and practice to master, but keep in mind that the time you spend learning how to use it effectively is likely to *save* you time in the long run.

PRACTICAL APPLICATION Planning a Qualitative Study

As you have seen, a qualitative research project is not something to be entered into casually. The flexibility of qualitative methodologies is an advantage for experienced researchers but often a disadvantage for novices, who may not have sufficient background or training to make wise decisions about how to proceed. Furthermore, data collection and data analysis may be far more complex and time-consuming than a researcher anticipated.

If you think a qualitative approach might be suitable for your purposes, you may want to do a pilot study first to find out whether you feel comfortable with the ambiguity and lack of structure in the process. We urge you, too, to learn as much as you can about qualitative research strategies, perhaps by reading some of the sources in the “For Further Reading” list at the end of this chapter. Once you have determined that you have both the time and skills to conduct a qualitative study, you may find the following checklist helpful in your planning.

CHECKLIST

Pinning Down the Details of a Qualitative Study

WHAT IS THE PURPOSE OF THE PROJECT?

- _____ 1. What is the current status of knowledge pertaining to the question?

- _____ 2. Why is the study important?

WHAT IS THE SPECIFIC FOCUS AND DESIGN OF THE PROJECT?

- _____ 3. Will the focus be on individuals, groups, cultures, experiences, processes, or content?

- _____ 4. Will the design be a case study, ethnography, phenomenological study, grounded theory study, content analysis, a combination of two or more of these, or none of these?

WHAT DATA ARE NEEDED?

- _____ 5. How will you gain access to the site?

_____ 6. How much time will you need?

_____ 7. What resources are needed and available?

_____ 8. Are there any existing constraints on data collection?

HOW WILL THE DATA BE COLLECTED?

_____ 9. How will the participants or materials be sampled?

_____ 10. What role will you, as the researcher, assume?

_____ 11. How will you ensure anonymity and confidentiality for the participants?

_____ 12. What procedures will you follow, and in what order?

HOW WILL THE ANALYSIS BE CONDUCTED?

_____ 13. What is the unit of analysis (person, event, story, artifact, etc.)?

_____ 14. What methods of analysis will you use?

_____ 15. How will you make sure that you and others can have confidence in your findings?

HOW WILL THE FINDINGS BE COMMUNICATED?

16. How will you describe the context?

17. How will you convey the participants' perspectives?

18. What format(s) will you use to synthesize the data?

Criteria for Evaluating Qualitative Research

How do readers, reviewers, and practitioners assess the worth of a qualitative proposal or research study? What characteristics are essential to a good study? What makes one study "excellent" and another study only "marginal"?

Experienced qualitative researchers have offered a variety of standards that might be used to evaluate a qualitative study (Altheide & Johnson, 1994; Creswell, 2007, 2009; Eisner, 1998; Gall, Gall, & Borg, 2007; Glaser, 1992; Howe & Eisenhardt, 1990). We have boiled down their suggestions to nine general criteria:

1. **Purposefulness.** The research question drives the methods used to collect and analyze data, rather than the other way around.
2. **Explicitness of assumptions and biases.** The researcher identifies and communicates any assumptions, beliefs, values, and biases that may influence data collection and interpretation.
3. **Rigor.** The researcher uses rigorous, precise, and thorough methods to collect, record, and analyze data. The researcher also takes steps to remain as objective as possible throughout the project.
4. **Open-mindedness.** The researcher shows willingness to modify hypotheses and interpretations when newly acquired data conflict with previously collected data.
5. **Completeness.** The researcher depicts the object of study in all of its complexity. The researcher spends sufficient time in the field to understand all nuances of a phenomenon; describes the physical setting, behaviors, and perceptions of participants; and gives readers an in-depth, multifaceted picture of the phenomenon (i.e., *thick description*).
6. **Coherence.** The data yield consistent findings, such that the researcher can present a portrait that "hangs together." Multiple data sources converge onto consistent conclusions (*triangulation*), and any contradictions within the data are reconciled.
7. **Persuasiveness.** The researcher presents logical arguments, and the weight of the evidence suggests one interpretation to the exclusion of others.
8. **Consensus.** Other individuals, including the participants in the study and other scholars in the discipline, agree with the researcher's interpretations and explanations.
9. **Usefulness.** The project yields conclusions that promote better understanding of the phenomenon, enable more accurate predictions about future events, or lead to interventions that enhance the quality of life.

REAL APPLICATION Evaluating Qualitative Research Studies

Drawing from the preceding criteria, as well as from guidelines presented by Good (1993), we offer the following checklist to help you evaluate a final report for a qualitative research project. Some of the items in the checklist are equally applicable to a proposal for a future qualitative project.



CHECKLIST

Evaluating a Qualitative Study

METHODS	YES	NO
<input type="checkbox"/> 1. Is the context/setting of the study adequately described?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 2. Are techniques for data collection appropriate for the research problem? Are they thoroughly and precisely described?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 3. Are multiple data sources used?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4. Are sufficient data collected from a variety of participants over an appropriate length of time?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 5. Are criteria for the selection of participants, informants, or materials presented? Is the sample described in sufficient detail?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 6. Are the roles of the researcher and participants made clear?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 7. Does the researcher identify any assumptions, beliefs, values, or biases that might influence data collection or analysis?	<input type="checkbox"/>	<input type="checkbox"/>
FINDINGS AND INTERPRETATIONS		
<input type="checkbox"/> 8. Are the data analysis techniques appropriate for the research question, methodology, and theoretical framework?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 9. Are data analysis techniques explicitly described?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 10. Do data analysis techniques allow for revision and reinterpretation as new data come to light?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 11. Is triangulation of the various data sources addressed?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 12. If used, are tables, figures, and other graphics easy to read and interpret? Do they enhance the reader's ability to understand the study?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 13. Are sufficient data reported to support the conclusions drawn?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 14. Are any irrelevant and unnecessary data reported? If so, what should be deleted? _____	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 15. Are discrepant data discussed and reconciled?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 16. Have the setting and observations been sufficiently described to present a convincing case?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 17. Are participant "voices" used to support the assertions and present multiple perspectives?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 18. Is the report detailed enough that the findings can be compared to other studies in other contexts?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 19. Is the discussion congruent with the research question and rationale for the study?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 20. Are implications for theory and/or practice discussed?	<input type="checkbox"/>	<input type="checkbox"/>

_____	21. Have other scholars in the field reviewed the proposal or report? If so, do they agree that the approach, methodology, and conclusions are appropriate?	_____	_____
_____	22. Have participants in the project read the report? Do they agree with its findings?	_____	_____
WRITING STYLE			
_____	23. Is the writing style (e.g., expository, narrative) appropriate for the study?	_____	_____
_____	24. If a narrative is used, are the stories understandable? Are they authentic?	_____	_____
_____	25. Is the writing style concise? Is the argument clear?	_____	_____
_____	26. Are the writer's arguments logical and persuasive?	_____	_____

A Sample Dissertation

As an illustration of how the methodology of a qualitative research study might look, we present excerpts from Robin Smith's doctoral dissertation conducted at Syracuse University (Smith, 1999). The study was a multiple case study that also incorporated elements of grounded theory research and content analysis.

The study focused on five high school students who had significant intellectual disabilities. In particular, it examined the nature of the students' involvement and participation in high school classrooms. It looked, too, at teachers' perceptions and interpretations of the students' disabilities and academic performance.

The dissertation's "Method" chapter begins with an overview of the research strategies used and a rationale for selecting the individuals to be studied. It then presents more specific information about each of the five students: Gerald, Trish, Nick, Tyrone, and Abe (all pseudonyms). We pick up the chapter at the point where it begins a discussion of data collection. As we have done in preceding chapters of this book, we present excerpts on the left and a running commentary on the right.

3

DATA COLLECTION PROCESSES

Data gained in the varied academic settings of the five students assisted in understanding the patterns of academic participation and the meanings and relationships of the five students regarding their academic participation in high school. I gathered data from the following sources:

Observations

Over three school semesters, I conducted observations of five high school students who were attending high school and enrolled in at least one academic subject in the general high school curriculum. These observations totaled 52 visits ranging in length ...

Comments

Here the author provides information about the amount of time she spent in the field. Her observations varied considerably in duration depending on the situation; we are more apt to see such flexibility in a qualitative study than in a quantitative one.

... 15 minutes ... the longest, 6 hours. ... (The author continues with a description of the kinds of observations made and the circumstances in which they occurred.)

Interviews

... conversations and interviews with adults involved and concerned with the student's education, including general and special education teachers, assistants, and parents. I described these conversations in field notes and transcriptions. ... Structured interviews with the parents of each student included the following questions:

- 1. Tell me about the history of your child's schooling.
- 2. What are the child's strengths? That is, what is he or she good at?
- 3. Where does it get hard for the student?
- 4. How does he or she like high school? How can you tell?
- 5. What do you see your child learning?
- 6. What are your goals and dreams for your child?
- 7. What else should I know about your child to better understand what is happening for him or her in school?

I conducted similar interviews with the special education teachers, which included questions about their educational goals for the student. I conducted one formal interview with a special education teacher, with further interviews as necessary to enhance my understanding of my data. These other interviews were often in the form of brief conversations during or in between class, interviews by appointment, and phone interviews.

I conducted interviews with the general education teachers in the form of formal or brief conversations that fit into the teachers' schedules. ... I also had conversations with the general education teachers by staying a few minutes in the classroom and asking them questions about what I had observed that day or how they thought the student was doing. ...

I had transcribed in-depth interviews, and I embedded observer comments into the transcribed text as I reviewed it. I wrote down informal conversations as soon as possible, and when possible, wrote during the conversations according to the comfort level of the participants with note taking. I used a Hewlett Packard laptop computer, which enabled me to take legible and detailed notes and transcribe detail soon after an observation.

School Records and Documents

School records and documents were another source of information. At the very beginning of my study I went to the district office of special education, which kept the school records of all five of the students. I looked in each file to learn what I could about the students' grades and progress reports, along with the professional recommendations and recommendations regarding the students' schooling. I took notes on my hand-held computer and read long quotes into my tape recorder for

The interviews were presumably structured in this manner so that similar kinds of information would be obtained about each child.

The author used follow-up unstructured interviews to gather additional information as needed. This strategy is consistent with a grounded theory approach, in which the researcher moves back and forth between data collection and data analysis.

The author used audiotapes and transcriptions to capture the details of in-depth interviews; she also wrote notes about shorter, more informal conversations as soon after they took place as possible. The phrase "according to the comfort level of the participants with note taking" might have been better worded as "to the extent that participants felt comfortable with my note taking." However, the phrase reflects an appropriate sensitivity about taking notes only when it did not make a participant feel uneasy. And notice the author's use of a small computer to facilitate data collection!

Why did the author wait until the end to look at school records and documents? Later in this excerpt you will see her reason: She was worried that early knowledge of these records would bias her interpretations of what she observed in the classroom.

later reference and transcription. I took notes on students' work in class and from some student work I found in the files, and collected samples of their work where possible.

Finally, I relied heavily on very detailed field notes. At first I wrote everything I saw. As I narrowed my focus I consistently included the students' interactions with adults and peers, their reactions to what was going on, and what other students were doing at the same time. Describing interactions of the nonspeaking students was challenging; due to the crowded conditions of several of the general education classes and my being in a wheelchair, I was not always able to be close enough to the student to observe facial expressions. Fortunately, each student was accessible to me most of the time, especially when I was well into the study and a couple of sympathetic teachers invited the student to sit where I could be close by. Thus many of my observations were able to include whispered dialogue between the student and support person helping with an assignment.

CODING AND ANALYSIS

... As I collected and analyzed data from preliminary observations, I found issues to explore ... questions arose that created a need for further observing or interviewing. Using the constant comparative method of analysis (Glaser & Strauss, 1967), I collected data, looked for emerging themes and recurrent events, categorized them, and reevaluated my themes and categories. As I collected more data, I wrote analytic memos about my data, and reevaluated my previous theories as I compared old data with new (Bogdan & Biklen, 1992, pp. 72-75). The themes of academic engagement, generated by my pilot study, continued to expand in depth and breadth, and they generated more themes that guided the development of my study.

For example, Nick, one of the students I observed, sat with his assistant in the last row by the door, separated by another row of desks from the class; he seemed an observer in class lectures and discussions. When his assistant supported him to participate in hands-on activities, the assistant did the task for the student. The educators in the room said to me, "He doesn't understand much of what's going on," and they did not expect him to benefit from the actual curriculum content ("He's not getting much out of it."). In contrast, Trish, a student with even less physical coordination and verbal expression, followed a full academic schedule, and many of her teachers considered her to be involved, interested, and learning. This led me to look for signs of expectations of the student and how people evaluated the students. Thus, early data codes such as "expectation," "perception," and "assessment" led to a chapter regarding expectations and another regarding types of assessments.

I used Q.S.R. Nudist (QSR-NUD*IST, 1995) to code my data. This program enabled me to identify text segments in various ways, including participants' names and roles, as well as assigned categories such as "engaged," "disengaged," and "academics," that resulted in 98 data codes. A few of these original codes survived my ongoing revisions and collapsing of categories to my final analysis. I printed categories out in groups and coded them again by hand, testing new coding categories by merging several categories and reexamining the data. For example, many of the text segments that I had labeled "expectation" evolved into "assessment." Once I had determined

This narrowing of focus as the study proceeds is frequently found in qualitative research.

Notice how the author is looking for nonverbal as well as verbal information. Notice, too, how cooperative participants (in this case, some "sympathetic teachers") can facilitate data collection.

The constant comparative method is central to grounded theory research.

Here we see that the author conducted an earlier pilot study—something we urge any beginning researcher to do, particularly when planning a qualitative study.

Notice the author's attention to Nick's physical distance from other students—a clear, nonverbal indicator that Nick is essentially a nonparticipant, an outsider, in this classroom.

The ability to contrast one situation with another is a key advantage of a multiple case study.

Here we see open coding, the first step in data analysis in a grounded theory study.

*NUD*IST was an early, groundbreaking computer database program especially suited for data collection in qualitative research.*

that assessment was an important category, I subdivided it into "formal," "informal," and "professional," each with its own set of categories which are explained in my data chapter, "Patterns of Assessment." . . . Further hand coding yielded the categories I finally used in the chapter on "participation." . . . *(The author continues the discussion of data coding and other issues and then turns to the subject of values.)*

Exposing Researcher Values

During this research I have continuously inspected my expectations and values as a continuing reminder of the role that values have in inquiry. . . . Ongoing self-reflection in memos and discussions with mentors throughout the course of the study helped me identify and account for the interference of my assumptions in my study. . . . For example, sometimes I was tempted to express findings about expectations in cause and effect terms. . . .

I expose my values in my narrative as playing a significant role in my inquiry. In sharing my values in the introduction, and further here, I have attempted to take them into account as I share my data and analysis. For example, as a disability rights advocate, I have hoped that my research regarding students with disabilities would be a contribution toward achieving equality and full integration of people with disabilities. I remained aware of my bias against the self-contained setting, where four of the students in the study were based, in order to see what might actually benefit the students in that setting. I am aware that my bias is related to my advocacy stance against segregation and to the negative accounts of friends who have experienced segregated special education. I also had a prejudice against professional assessments along with the likelihood . . . that I might be influenced by the contents if I read them early in the study. To counter inappropriate influence of this prejudice, I read the assessments at the end of my study and took a class in how to administer psychoeducational assessments. . . .

As I listened to my informants, I was aware of my own assumption that students benefit from academic inclusion and that all students have the right to attain knowledge . . . for my observations and interviews, I kept an open mind to the notion that special education settings do not preclude learning, may even enhance it, and that observing the special education academic experiences could also inform me about student engagement and how they [students] participated in the academic activities.

LEAVING THE FIELD

The process of leaving the field was gradual. I was learning less and less from observations by the end of spring. Completing ceasing the first school year observation was precipitated by the beginning of the university summer session and my assignment to spend all day in a suburban school as a student teacher. I was assigned to Trish's summer school class the second summer session and took notes on that experience. I visited her twice in the fall but was excluded from her general education classes due to overcrowding. Also in the fall, I spent two days with Tyrone. . . . By then I had been analyzing data and felt the main thing lacking was the assessment of material from official records. Waiting until the following summer to look into

Here data analysis has moved on to axial coding, where the author is refining her categories and their interconnections.

In this section, the author reveals her biases and the strategies she used to counteract those biases. Regular conversations with her university advisor and others helped her identify assumptions she didn't initially realize she was making.

Here the author describes her bias in favor of inclusion, where students with disabilities learn in general education classrooms alongside their nondisabled peers, rather than in self-contained classrooms, in which students with disabilities are segregated from nondisabled students.

Here we discover why the author waited until the end of her study to look at school records.

Here the author is looking for disconfirming evidence, one effective strategy for minimizing the influence of a researcher's biases on data interpretation.

In grounded theory terminology, the author has probably saturated her categories at this point: Any additional information is shedding little or no new light on the subject matter.

the records proved wise, as I was able to find them a rich source of data. I actually eased my way out of the field (Bogdan & Biklen, 1992, pp. 104-105) rather than leaving, keeping contacts with many of my informants and calling to find out what is going on with a student or to clarify a question.

NOTE: Excerpt is from *Academic Engagement of High School Students with Significant Disabilities: A Competence-Oriented Interpretation* (pp. 18-30) by R. M. Smith, 1999, unpublished doctoral dissertation, Syracuse University, Syracuse, New York. Reprinted with permission.

Notice that the author didn't just disappear from the scene. Instead, she continued to maintain contact with her participants after her research was completed.

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ANSWERS TO THE CONCEPTUAL ANALYSIS EXERCISE "Choosing a Qualitative Research Design" on page 150

1. The researcher wants to learn about the general *culture* of an Elks chapter; hence an *ethnography* is most appropriate.
2. A *content analysis* is called for here—in particular, a systematic sampling and analysis of television commercials that are broadcast within a specified time period.
3. By focusing on three specific examples of a grassroots political party, the researcher is presumably intending to conduct a *multiple case study*.
4. The focus here is on how adolescents *perceive* their situation, making a *phenomenological study* especially relevant to the research problem.
5. Because the research question involves a process—human interaction—and very little literature exists to shed light on the question, a *grounded theory* study is probably in order here.

