7

Data Collection

Data collection offers one more instance for assessing research design within each tradition of inquiry. However, before exploring this point, I find it useful to visualize the phases of data collection common to all traditions. A "circle" of interrelated activities best displays this process, a process of engaging in activities that include but go beyond collecting data.

I begin this chapter by presenting this circle of activities, briefly introducing each activity. These activities are locating a site or individual, gaining access and making rapport, sampling purposefully, collecting data, recording information, exploring field issues, and storing data. Then I explore how these activities vary by tradition of inquiry, advance a table that summarizes these differences, and end with a few summary comments about comparing the data collection activities across the five traditions.

Questions for Discussion

- How might the data collection process and the activities in the process be visualized?
- What are typical access and rapport issues in each tradition?
- How does one select people or places to study in each tradition?
- What type of information typically is collected in each tradition?
- How is information recorded in each tradition?

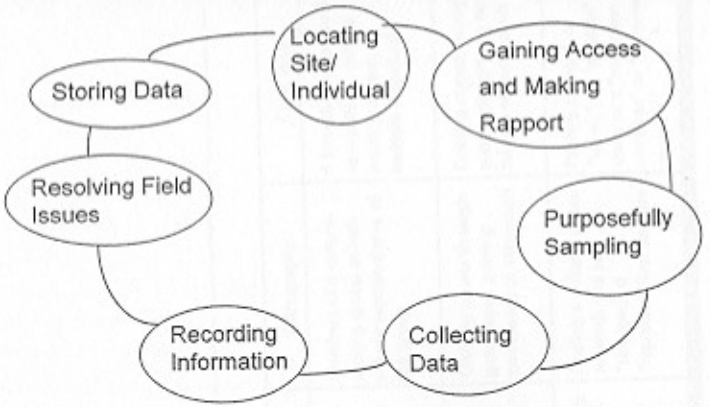


Figure 7.1 Data Collection Activities

- ▼ What are common issues in collecting data in each tradition?
- ▼ How is information typically stored in each tradition?
- ▼ How do the five traditions differ in the activities of data collection?

A DATA COLLECTION CIRCLE

I visualize data collection as a series of interrelated activities aimed at gathering good information to answer emerging research questions. As shown in Figure 7.1, a qualitative researcher engages in a series of activities in the process of collecting data. Although I start with locating a site or an individual to study, an investigator may begin at another entry point in the circle. Most important, I want the researcher to consider the multiple phases in collecting data, phases that extend beyond the typical reference point of conducting interviews or making observations.

An important step in the process is to find people or places to study and to gain access and establish rapport so that participants will provide good data. A closely interrelated step in the process involves determining a strategy for the purposeful sampling of individuals or sites. This is not a probability sampling so that statistical inferences can be made; rather, it is sampling so that one can best study the

problem under examination. The researcher needs to determine the type of purposeful sampling from the array of possibilities and present a rationale for the selected approach.

Once the investigator selects the sites or people, decisions need to be made about the most appropriate data collection approaches. Increasingly, a qualitative inquirer faces newer and more innovative approaches such as e-mail messages, and usually a study involves more than a single source of data. To collect this information, the researcher develops protocols or written forms for recording the information and needs to assess the logistics of this recording process. Also, noting and being aware of potentially difficult field issues that may compromise the data, lead to premature exit from the field or site, and/or contribute to lost information is an important consideration. Finally, an investigator must decide how he or she will store data to find them easily and to protect them from damage or loss.

I now turn to each of these data collection activities, and I address each for general procedures and approaches within each tradition of inquiry. As shown in Table 7.1, these activities are both different and similar across the five traditions of inquiry.

THE SITE OR INDIVIDUAL

In a *biographical study*, one needs to find an individual to study, an individual who is accessible, willing to provide information, and distinctive for her or his accomplishments and ordinariness or who sheds light on a specific phenomenon or issue being explored. Plummer (1983) recommends two sources of subjects to study. The pragmatic approach is where an individual is met on a chance encounter, a subject of interest emerges from a wider study, or an individual volunteers. Alternatively, one might identify a "marginal person" who lives in conflicting cultures, a "great person" who impacts the age in which he or she lives, or an "ordinary person" who provides an example of a large population.

In a *phenomenological study*, the participants may be located at a single site, although they need not be. Most important, they must be individuals who have experienced the phenomenon being explored and can articulate their conscious experiences. Likewise, in a *grounded theory study*, the individuals may not be located at a single site; in fact,

TABLE 7.1 Data Collection Activities and the Five Traditions

Data Collection Activity	*Biography*	*Phenomenology*	*Grounded Theory*	*Ethnography*	*Case Study*
What is traditionally studied? (site/individual[s])	Single individual, accessible and distinctive	Multiple individuals who have experienced the phenomenon	Multiple individuals who have responded to action or participated in a process about a central phenomenon	Members of a culture-sharing group or individuals representative of the group	A bounded system such as a process, activity, event, program, or multiple individuals
What are typical access and rapport issues? (access and rapport)	Gaining permission from individuals, obtaining access to information in archives	Finding people who have experienced the phenomenon	Locating a homogeneous sample	Gaining access through gatekeeper, gaining confidence of informants	Gaining access through gatekeeper, gaining confidence of participants
How does one select sites or individuals to study? (purposeful sampling strategies)	Several strategies depending on person (e.g., convenient, politically important, typical, a critical case)	Finding individuals who have experienced the phenomenon, a "criterion" sample	Finding a homogeneous sample, a "theory-based" sample, a "theoretical" sample	Finding a cultural group to which one is a "stranger," a "representative" sample	Finding a "case" or "cases," an "atypical" case, or a "maximum variation" or "extreme" case
What type of information typically is collected? (forms of data)	Documents and archival material, open-ended interviews, subject journaling, participant observation, casual chatting	Interviews with up to 10 people	Primarily interviews with 20-30 people to achieve detail in the theory	Participant observations, interviews, artifacts, and documents	Extensive forms such as documents and records, interviews, observation, and physical artifacts
How is information recorded? (recording information)	Notes, interview protocol	Long interview protocol	Interview protocol, memoing	Fieldnotes, interview and observational protocols	Field notes, interview and observational protocols
What are common data collection issues? (field issues)	Access to materials, authenticity of account and materials	Bracketing one's experiences, logistics of interviewing	Interviewing issues (e.g., logistics, openness)	Field issues (e.g., reflexivity, reactivity, reciprocality, "going native," divulging private information, deception)	Interviewing and observing issues
How is information typically stored? (storing data)	File folders, computer files	Transcriptions, computer files	Transcriptions, computer files	Field notes, transcriptions, computer files	Fieldnotes, transcriptions, computer files

if they are dispersed, then they can provide important contextual information useful in the axial coding phase of research. They need to be individuals who have taken an action or participated in a process that is central to the grounded theory study. For example, in Creswell and Brown (1992), we interview 32 department chairpersons located across the United States.

In an *ethnographic study*, however, a single site is important where an intact culture-sharing group has developed shared values, beliefs, and assumptions. The researcher needs to select a group (or an individual or individuals representative of a group) to study, preferably one to which the investigator is a "stranger" (Agar, 1986) and can gain access. For a *case study*, the site (or sites) also is important, but it is much more circumscribed than an entire cultural system in an ethnography. These sites may be programs, events, processes, activities, or multiple individuals. Although Stake (1995) refers to an individual as an appropriate "case," I turn to the biographical approach or the life history approach in studying a single individual. However, the study of multiple individuals, each defined as a case and considered a collective case study, seems acceptable practice.

I need to register a cautionary note, as do ethnographers such as Glesne and Peshkin (1992), about studying a site or people in whom one has a vested interest. Glesne and Peshkin question research that examines "your own *backyard*—within your own institution or agency, or among friends or colleagues" (p. 21; emphasis added). This form of qualitative research attracts many students of qualitative research because studying one's own backyard provides easy access to informants and information at minimal cost. Undoubtedly, qualitative researchers bring their values, biases, and understandings to a project, and intimate knowledge of a setting may be an asset. But the negatives outweigh the positives. Studying such people or sites establishes expectations for data collection that may severely compromise the value of the data; individuals might withhold information, slant information toward what they want the researcher to hear, or provide "dangerous knowledge" that is political and risky for an "inside" investigator (Glesne & Peshkin, 1992). Also, especially in ethnographic research, the investigator tracks norms and values of which participants in the culture may not be aware; being an insider may not yield this information. Unless a compelling argument can be made for

studying the "backyard," I would advise against it. In the Principal Selection Committee study, Wolcott (1994a) mentions that he might have studied the role of the principal by obtaining a principal's position, but, he cautions, "I had become acutely aware of the limitations on one's ability to objectively observe processes in which . . . [he or she] . . . is deeply involved as a participant" (p. 117).

ACCESS AND RAPPORT

Gaining access to the site or individual(s) also involves several steps. Regardless of the tradition of inquiry, permissions need to be sought from a human subjects review board, a process in which a campus committee reviews research studies for their potential harmful impact on subjects (or participants). This process involves submitting a proposal to the board that details the procedures in the project. Most qualitative studies are exempt from a lengthy review (e.g., the expedited or full review), but studies involving individuals as minors (i.e., 18 years or under) or studies of sensitive populations (e.g., HIV-positive individuals) require the expedited or full review, a process involving detailed, lengthy applications and an expanded time for review. Because many review boards are more familiar with the *quantitative* approaches to social and human science research than they are to *qualitative* approaches, the qualitative project description may need to conform to standard procedures and language in positivist research (e.g., hypotheses, subjects, results) as well as information about the protection of human subjects. As shown in Figure 7.2, the actual consent form that participants complete in a study addresses the following:

- Their right to voluntarily withdraw from the study at any time.
- The central purpose of the study and the procedures to be used in data collection.
- Comments about protecting the confidentiality of the respondents.
- A statement about known risks associated with participation in the study.

"Experiences in Learning Qualitative Research: A Qualitative Case Study"

The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that you are free to decide not to participate or to withdraw at any time without affecting your relationship with this department, the instructor, or the University of Nebraska–Lincoln.

The purpose of this study is to understand the process of learning qualitative research in a doctoral-level college course. The procedure will be a single, holistic case study design. At this stage in the research, process will be generally defined as perceptions of the course and making sense out of qualitative research at different phases in the course.

Data will be collected at three points—at the beginning of the course, at the midpoint, and at the end of the course. Data collection will involve documents (journal entries made by students and the instructor, student evaluations of the class and the research procedure), audio-visual material (a videotape of the class), interviews (transcripts of interviews between students), and classroom observation field notes (made by students and the instructor). Individuals involved in the data collection will be the instructor and the students in the class.

Do not hesitate to ask any questions about the study either before participating or during the time that you are participating. We would be happy to share our findings with you after the research is completed. However, your name will not be associated with the research findings in any way, and your identity as a participant will be known only to the researchers.

There are no known risks and/or discomforts associated with this study.

The expected benefits associated with your participation are the information about the experiences in learning qualitative research, the opportunity to participate in a qualitative research study, and co-authorship for those students who participate in the detailed analysis of the data. If submitted for publication, a byline will indicate the participation of all students in the class.

Please sign your consent with full knowledge of the nature and purpose of the procedures. A copy of this consent form will be given to you to keep.

_____ _____

Signature of Participant Date

John W. Creswell, Ed. Psy., UNL, Principal Investigator 402-472-2248

Figure 7.2 Sample Human Subjects Consent to Participate Form

- The expected benefits to accrue to the participants in the study.
- A place for them to sign and date the form (a place for the researcher to sign and date also may be offered).

For a *biographical study*, inquirers gain information from individuals by obtaining their permission to participate in the study. Study subjects should be appraised of the motivation of the researcher for their selection, granted anonymity (if they desire it), and told by the researcher about the purpose of the study. This disclosure helps build rapport. Access to biographical documents and archives requires permission and perhaps travel to distant libraries.

In a *phenomenological study*, the access issue is limited to finding individuals who have experienced the phenomenon and gaining their written permission to be studied. In Riemen's (1986) study, for example, she found 10 nonhospitalized adults over 18 years of age who had prior interactions with registered nurses and who could articulate their experiences. Because of the in-depth nature of extensive and multiple interviews with participants, it is convenient for the researcher to obtain people who are easily accessible.

The access through individual permission to be studied also is part of a *grounded theory study*. This group needs to provide permission to be studied and needs to have rapport with the researcher to disclose detailed perspectives about responding to an action or process. The grounded theorist starts with a homogeneous sample, individuals who have commonly experienced the action or process. In an *ethnography*, access typically begins with a "***gatekeeper***," an individual who is a member of or has insider status with a cultural group. This gatekeeper is the initial contact for the researcher and leads the researcher to other informants (Hammersley & Atkinson, 1995). Approaching this gatekeeper and the cultural system slowly is sage advice for "strangers" studying the culture. Gaining access through the gatekeeper and establishing rapport with the case being studied also are important for a *case study*. For both ethnographies and case studies, gatekeepers require information about the studies that includes the following points (usually submitted in writing), as Bogdan and Biklen (1992) suggest:

- Why was the site chosen for study?
- What will be done at the site during the research study? (time and resources required by participants and amount of time to be spent at the site by the researcher)
- Will the researcher's presence be disruptive?

- How will the results be reported?
- What will the gatekeeper gain from the study?

PURPOSEFUL SAMPLING STRATEGY

The purposeful selection of participants represents a key decision point in a qualitative study. Researchers designing qualitative studies need clear criteria in mind and need to provide rationales for their decisions. I recommend that qualitative researchers, regardless of tradition, examine the typology of 16 strategies for purposeful sampling advanced by Miles and Huberman (1994). As shown in Figure 7.3, the authors identify the purpose for each sampling option. I especially like when writers can identify their specific strategies, offer definitions for them, and provide brief rationales for their use. I illustrate this approach for each of the five traditions.

In a *biographical study*, the individual may be "convenient" to study because she or he is available, may be a "politically important case" who attracts attention or is marginalized, or may be a "typical" case, the ordinary person. Inquirers may select several options depending on whether the person is marginal, great, or ordinary (Plummer, 1983). Vonnie Lee, who consented to participate and provide insightful information about the mentally retarded (Angrosino, 1994), was convenient to study but also was a "critical case" who permitted generalization and application to individuals with mental retardation.

I find, however, a much more narrow range of sampling strategies for a *phenomenological study*. It is essential that all participants experience the phenomenon being studied. "Criterion" sampling works well when all individuals studied represent people who have experienced the phenomenon. All individuals meet this criterion. For a *grounded theory study*, the investigator chooses participants based on their ability to contribute to an evolving theory. Using the terms of Miles and Huberman (1994), this process is "theory based," but in grounded theory the term is ***theoretical sampling***, which means that the investigator examines individuals who can contribute to the evolving theory. This begins with selecting and studying a homogeneous sample of individuals (e.g., all women who have experienced childhood abuse) and then, after developing the theory, selecting and studying a heterogeneous sample (e.g., types of support groups other than

Type of Sampling	*Purpose*
Maximum variation	Documents diverse variations and identifies important common patterns
Homogeneous	Focuses, reduces, simplifies, and facilitates group interviewing
Critical case	Permits logical generalization and maximum application of information to other cases
Theory based	Find examples of a theoretical construct and thereby elaborate on and examine it
Confirming and disconfirming cases	Elaborate on initial analysis, seek exceptions, looking for variation
Snowball or chain	Identifies cases of interest from people who know people who know what cases are information-rich
Extreme or deviant case	Learn from highly unusual manifestations of the phenomenon of interest
Typical case	Highlights what is normal or average
Intensity	Information-rich cases that manifest the phenomenon intensely but not extremely
Politically important cases	Attracts desired attention or avoids attracting undesired attention
Random purposeful	Adds credibility to sample when potential purposeful sample is too large
Stratified purposeful	Illustrates subgroups and facilitates comparisons
Criterion	All cases that meet some criterion; useful for quality assurance
Opportunistic	Follow new leads; taking advantage of the unexpectecd
Combination or mixed	Triangulation, flexibility; meets multiple interests and needs
Convenience	Saves time, money, and effort, but at the expense of information and credibility

Figure 7.3 Typology of Sampling Strategies in Qualitative Inquiry
SOURCE: Miles and Huberman (1994, p. 28). Reprinted with permission from Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook of new methods* (2nd ed.). Thousand Oaks, CA: Sage.

women who have experienced childhood abuse). The rationale for studying this heterogeneous sample is to confirm or disconfirm the conditions, both contextual and intervening, under which the model holds (see Creswell & Urbom, 1997, for this procedure).

In an *ethnography*, once the investigator selects a site with a cultural group, the next decision is who and what will be studied. Thus, within-culture sampling proceeds, and several authors offer suggestions for this procedure. Fetterman (1989) recommends proceeding with the "big net approach" (p. 42), where at first the researcher mingles with everyone. Ethnographers rely on their judgment to select members of the subculture or unit based on their research questions. They take advantage of opportunities ("opportunistic" sampling [Miles & Huberman, 1994]) or establish criteria for studying select individuals (criterion sampling). The criteria for selecting who and what to study for Hammersley and Atkinson (1993) are based on gaining some perspective on time in the social life of the group, people representative of the culture-sharing group in terms of demographics, and the contexts that lead to different forms of behavior.

In a *case study*, the investigator might consider any one of the strategies for sampling identified by Miles and Huberman (1994). I prefer to select unusual cases in collective case studies and employ "maximum variation" as a strategy to represent diverse cases to fully display multiple perspectives about the cases. "Extreme and deviant cases" may comprise my collective case study, such as our study of the campus response to the gunman (Asmussen & Creswell, 1995).

FORMS OF DATA

Although approaches to data collection continually expand in the qualitative area (see Creswell, 1994), there are four basic types of information to collect: observations (ranging from nonparticipant to participant), interviews (ranging from semistructured to open-ended), documents (ranging from private to public), and audio-visual materials (including materials such as photographs, compact disks, and videotapes). In Figure 7.4, I present a compendium of approaches under these four categories. In recent years, new forms of data have emerged such as journaling in narrative story writing, using text from e-mail messages, and observing through videotapes and photographs. I encourage individuals designing qualitative projects to pursue information from sources generally unfamiliar to the reader. For example, I like the technique of "photo elicitation" in which participants are shown pictures (their own or those taken by the researcher)

Observations:

- Gather fieldnotes by conducting an observation as a participant.
- Gather fieldnotes by conducting an observation as an observer.
- Gather fieldnotes by spending more time as a participant than as an observer.
- Gather fieldnotes by spending more time as an observer than as a participant.
- Gather fieldnotes first by observing as an "outsider" and then moving into the setting and observing as an "insider."

Interviews:

- Conduct an unstructured, open-ended interview and take interview notes.
- Conduct an unstructured, open-ended interview, audiotape the interview, and transcribe the interview.
- Conduct a semistructured interview, audiotape the interview, and transcribe the interview.
- Conduct a focus group interview, audiotape the interview, and transcribe the interview.

Documents:

- Keep a journal during the research study.
- Have a participant keep a journal or diary during the research study.
- Collect personal letters from participants.
- Analyze public documents (e.g., official memos, minutes, records, archival material).
- Examine autobiographies and biographies.
- Have informants take photographs or videotapes (i.e., photo elicitation).

Audio-visual materials:

- Examine physical trace evidence (e.g., footprints in the snow).
- Videotape or film a social situation or an individual/group.
- Examine photographs or videotapes.
- Collect sounds (e.g., musical sounds, a child's laughter, car horns honking).
- Collect e-mail or electronic messages.
- Examine possessions or ritual objects.

Figure 7.4 A Compendium of Data Collection Approaches in Qualitative Research

and asked by the researcher to discuss the contents of the pictures (Denzin & Lincoln, 1994). Ziller (1990), for example, handed a Polaroid camera, loaded with film, to each of 40 male and 40 female 4th graders in Florida and West Germany and asked them to take pictures of images that represented war and peace.

The tradition of inquiry directs an investigator's attention toward preferred approaches to data collection, although these approaches are not rigid guidelines. For a *biography*, for example, the portrait of

an individual's life is created from documents, interviews, and perhaps observations. For a life history of a living individual, Plummer (1983) discusses having the individual write down his or her history, a form of journaling. Also, the researcher conducts unstructured, open-ended interviews, with a "mixture of participant observation and almost casual chatting with notes taken" (p. 95). The cornerstone for life history writing for Plummer, however, is the open-ended interview.

For a *phenomenological study*, the process of collecting information involves primarily in-depth interviews (see, e.g., the discussion about the long interview in McCracken, 1988) with as many as 10 individuals. I have seen the number of interviewees referenced in studies range from 1 (Dukes, 1984) up to 325 (Polkinghorne, 1989). Dukes (1984) recommends studying 3 to 10 subjects, and the Riemen (1986) study included 10. The important point is to describe the meaning of a small number of individuals who have experienced the phenomenon. With an in-depth interview lasting as long as 2 hours (Polkinghorne, 1989), 10 subjects in a study represents a reasonable size. Added to 10 in-depth interviews might be the self-reflection of the researcher as a preparatory step to interviewing (Polkinghorne, 1989) or as the initial step in the analysis (Moustakas, 1994). Besides interviewing and self-reflection, Polkinghorne (1989) adds gathering information from depictions of the experience outside the context of the research projects such as descriptions drawn from novelists, poets, painters, and choreographers.

Interviews play a central role in the data collection in a *grounded theory study*. With the intent of developing a model or theory and saturating categories, I recommend that a grounded theorist interview 20 to 30 individuals. In our study of academic chairpersons (Creswell & Brown, 1992), each of our interviews with 33 individuals lasted approximately 1 hour. Other data forms besides interviewing, such as participant observation, researcher reflection or journaling (memoing), participant journaling, and focus groups, may be used to help develop the theory (see Morrow & Smith's [1995] use of these forms in their study of women's childhood abuse). However, in my experience, these multiple data forms play a secondary role to interviewing in grounded theory studies.

In an *ethnographic study*, the investigator collects descriptions of behavior through observations, interviewing, documents, and artifacts (Hammersley & Atkinson, 1995; Spradley, 1980), although observing and interviewing appear to be the most popular forms of data collection. ***Participant observation***, for example, offers possibilities for the researcher on a continuum from being a complete outsider to being a complete insider (Jorgensen, 1989). The approach of changing roles from that of an outsider to an insider through the course of the ethnographic study is well documented in field research (Jorgensen, 1989). Wolcott's (1994b) study of the Principal Selection Committee illustrates an outsider perspective as he observed and recorded events in the process without becoming an active participant in the committee's conversations and activities.

A *case study* involves the widest array of data collection as the researcher attempts to build an in-depth picture of the case. I am reminded of the multiple forms of data collection recommended by Yin (1989) in his book about case studies. He refers to six forms: documents, archival records, interviews, direct observation, participant observation, and physical artifacts.

Because of the extensive data collection in our gunman case study (Asmussen & Creswell, 1995), we presented a matrix of information sources for the reader. This matrix contains four types of data (interviews, observations, documents, and audio-visual materials) for the columns and specific forms of information (e.g., students at large, central administration) in the rows. Our intent was to convey through this matrix the depth and multiple forms of data collection, thus suggesting the complexity of our case. The use of a matrix, especially applicable in an information-rich case study, might serve the inquirer equally well in all traditions of inquiry.

In an examination of the data collection forms of the five traditions in Table 7.1, interviewing and observing are central to all traditions and deserve additional attention. Because of the extensive discussions of these topics in the literature, I highlight only basic procedures that I recommend to prospective interviewers and observers.

Interviewing

One might view interviewing as a series of steps in a procedure:

- *Identify interviewees based on one of the purposeful sampling procedures mentioned in the preceding (Miles & Huberman, 1994).*

- *Determine what type of interview is practical and will net the most useful information to answer research questions.* Assess the types available such as a telephone interview, a focus group interview, or a one-on-one interview. A telephone interview provides the best source of information when the researcher does not have direct access to individuals. The drawbacks of this approach are that the researcher cannot see the informal communication, and the phone expenses. Focus groups are advantageous when the interaction among interviewees will likely yield the best information, when interviewees are similar and cooperative with each other, when time to collect information is limited, and when individuals interviewed one on one may be hesitant to provide information (Krueger, 1994; Morgan, 1988; Stewart & Shamdasani, 1990). With this approach, however, care must be taken to encourage all participants to talk and to monitor individuals who may dominate the conversation. For one-on-one interviewing, the researcher needs individuals who are not hesitant to speak and share ideas and needs to determine a setting in which this is possible. The less articulate, shy interviewee may present the researcher with a challenge and less than adequate data.
- *Whether conducting one-on-one or focus group interviews, I recommend the use of adequate recording procedures, such as a lapel mike for both the interviewer and interviewee or an adequate mike sensitive to the acoustics of the room.*
- *Design the interview protocol, a form about four or five pages in length, with approximately five open-ended questions and ample space between the questions to write responses to the interviewee's comments.*
- *Determine the place for conducting the interview.* Find, if possible, a quiet location free from distractions. Ascertain that the physical setting lends itself to audiotaping, an essential necessity, I believe, in accurately recording information.
- *After arriving at the interview site, obtain consent from the interviewee to participate in the study.* Have the interviewee complete a consent form for the human relations review board. Go over the purpose of the study, the amount of time that will be needed to complete the interview, and plans for using the results from the interview (offer a copy of the report or an abstract of it to the interviewee).

- *During the interview, stick to the questions, complete within the time specified (if possible), be respectful and courteous, and offer few questions and advice.* This last point may be the most important, and I am reminded how a good interviewer is a listener rather than a speaker during an interview. Also, record information on the interview protocol in the event that the audio-recording does not work. Recognize that quickly inscribed notes may be incomplete and partial because of the difficulty of asking questions and writing answers at the same time.

Observing

Observing in a setting is a special skill that requires management of issues such as the potential deception of the people being interviewed, impression management, and the potential marginality of the researcher in a strange setting (Hammersley & Atkinson, 1995). Like interviewing, I also see observing as a series of steps:

- *Select a site to be observed.* Obtain the required permissions needed to gain access to the site.
- *At the site, identify who or what to observe, when, and for how long.* A ***gatekeeper*** or ***key informants*** help in this process.
- *Determine, initially, a role as an observer.* This role can range from that of a complete participant (going native) to that of a complete observer. I especially like the procedure of being an outsider initially followed by becoming an insider over time.
- *Design an observational protocol as a method for recording notes in the field.* Include in this protocol both descriptive and reflective notes (i.e., notes about your experiences, hunches, and learnings).
- *Record aspects such as portraits of the informant, the physical setting, particular events and activities, and your own reactions (Bogdan & Biklen, 1989).*
- *During the observation, have someone introduce you if you are an outsider, be passive and friendly, and start with limited objectives in the first few sessions of observation.* The early observational sessions

may be times in which to take few notes and confine attention to observing.

- *After observing, slowly withdraw from the site, thanking the participants and informing them of the use of the data and their accessibility to the study.*

RECORDING PROCEDURES

For both observing and interviewing, data collection forms used in all five traditions of inquiry, I mention the use of protocols, a predetermined sheet on which one logs information learned during the observation or interview. Interview protocols enable a person to take notes during the interview about the responses of the interviewee. They also help a researcher organize thoughts on items such as headings, information about starting the interview, concluding ideas, information on ending the interview, and thanking the respondent. In Figure 7.5, I provide the interview protocol used in our gunman case study (Asmussen & Creswell, 1995). Besides the five open-ended questions in the gunman case study, this form contains several features I recommend:

- *Use a header to record essential information about the project and as a reminder to go over the purpose of the study with the interviewee.* This heading might also include information about confidentiality and address aspects included in the consent form.
- *Place space between the questions in the protocol form.* Recognize that an individual may not always respond directly to the questions being asked. For example, while you ask Question 2, the interviewee may respond to Question 4. Be prepared to write notes to all of the questions as the interviewee speaks.
- *Memorize the questions and their order to minimize losing eye contact.* Provide appropriate verbal transitions from one question to the next.
- *Write out the closing comments that thank the individual for the interview and request follow-up information, if needed, from them.*

Interview Protocol
Project: University Reaction to a Terrorist Incident

Time of interview:
Date:
Place:
Interviewer:
Interviewee:
Position of interviewee:

(Briefly describe the project)

Questions:

1. What has been your role in the incident?

2. What has happened since the event that you have been involved in?

3. What has been the impact on the university community of this incident?

4. What larger ramifications, if any, exist from the incident?

5. To whom should we talk to find out more about campus reaction to the incident?

(Thank individual for participating in this interview. Assure him or her of confidentiality of responses and potential future interviews.)

Figure 7.5 Sample Interview Protocol

During an observation, use an observational protocol to record information. As shown in Figure 7.6, this protocol records information by one of my students on a class visit by Harry Wolcott. I provide only one page of the protocol, but one can see that it has a header describing information about the observational session and then includes "descriptive notes" where the researcher records a description of activities and a drawing of the physical setting. Moreover, the researcher provides "reflective notes"—notes about the process, reflections on activities, and summary conclusions about activities for later theme development. A line down the center of the page divides descriptive notes from reflective notes. A visual sketch of the setting and a header provide additional useful information.

Whether the investigator is using an observational or interview protocol, the essential process is recording information or, as Lofland and Lofland (1995) put it, "logging data" (p. 66). This process involves recording information through various forms such as observational fieldnotes, interview write-ups, mapping, census taking, photographing, sound recording, and collecting and organizing documents. An informal process may occur in recording information composed of initial "jottings" (Emerson, Fretz, & Shaw, 1995), daily logs or summaries, and descriptive summaries (see Sanjek, 1990, for examples of fieldnotes). These forms of recording information are popular in biographies, ethnographies, and case studies.

FIELD ISSUES

Researchers engaged in studies within all five traditions face issues in the field when gathering data. During the last several years, I have systematically collected notes from students and colleagues about the issues they encounter. Some common issues are the need to change or adjust the form of data collection once they enter the field. An overwhelming response is surprise by beginning qualitative researchers about the amount of time needed to collect extensive data. For practice, I recommend limited data collection, such as one or two interviews or observations, so that researchers can estimate the time needed to collect data. Along with the time issue is the concern about the amount of energy and focus required to establish a substantial database.

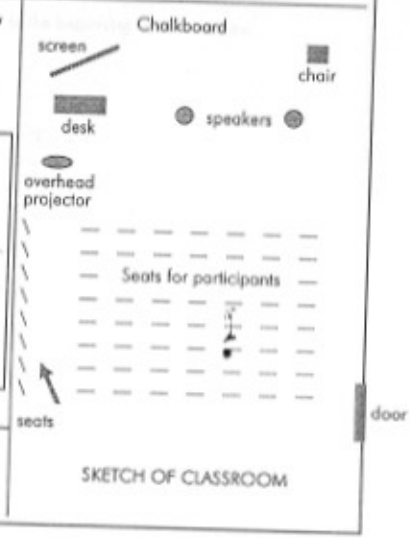
Length of Activity: 90 Minutes	
Descriptive Notes	*Reflective Notes*
General: What are the experiences of graduate students as they learn qualitative research in the classroom?	
See classroom layout and comments about physical setting at the bottom of this page.	*Overhead with flaps: I wonder if the back of the room was able to read it.*
Approximately 5:17 p.m., Dr. Creswell enters the filled room, introduces Dr. Wolcott. Class members seem relieved.	*Overhead projector not plugged in at the beginning of the class: I wonder if this was a distraction (when it took extra time to plug it in).*
Dr. Creswell gives brief background, concentrating on his international experiences; features a comment about the educational ethnography *The Man in the Principal's Office.*	*Lateness of the arrival of Drs. Creswell and Wolcott: Students seemed a bit anxious. Maybe it had to do with the change in starting time to 5 p.m. (some may have had 6:30 classes or appointments to get to).*
Dr. Wolcott begins by telling the class he now writes out educational ethnography and highlights this primary occupation by mentioning two books: *Transferring Qualitative Data* and *The Art of Fieldwork.*	*Drs. Creswell and Wolcott seem to have a good rapport between them, judging from many short exchanges that they had.*
While Dr. Wolcott begins his presentation by apologizing for his weary voice (due to talking all day, apparently), Dr. Creswell leaves the classroom to retrieve the guest's overhead transparencies.	
Seemed to be three parts to this activity: (1) the speaker's challenge to the class of detecting pure ethnographical methodologies, (2) the speaker's presentation of the "tree" that portrays various strategies and substrategies for qualitative research in education, and (3) the relaxed "elder statesman" fielding class questions, primarily about students' potential research projects and prior studies Dr. Wolcott had written.	
The first question was "How do you look at qualitative research?" followed by "How does ethnography fit in?"	SKETCH OF CLASSROOM

Figure 7.6 Sample Observational Protocol

In Figure 7.7, I enumerate other field issues and group them into topical areas. These issues span access/site problems to observations, interviews, document research, journals, video materials, and general ethical issues.

Issues of locating and obtaining permission to use materials present a challenge to biographical writers. The issues related to interviewing surface during phenomenological studies and grounded theory studies, whereas ethnographers struggle with access concerns and with sharing information with interviewees and participants in the cultural group. Case study writers, who gather extensive information, struggle with the time commitment and the details of interviewing.

Conducting interviews is taxing, especially for inexperienced researchers engaged in studies that require extensive interviewing, such as phenomenology, grounded theory, and case study research. Equipment issues loom large as a problem in interviewing, and both recording equipment and transcribing equipment need to be organized in advance of the interview. The process of questioning during an interview (e.g., saying "little," handling "emotional outbursts," using "ice-breakers") includes problems that an interviewer must address. Many inexperienced researchers express surprise at the difficulty of conducting interviews and the lengthy process involved in transcribing audiotapes from the interviews. In addition, in phenomenological interviews, asking appropriate questions and relying on informants to discuss the meaning of their experiences require patience and skill on the part of the researcher. In document research, the issues involve locating materials, often at sites far away, and obtaining permission to use the materials. For biographers, the primary form of data collection might be archival research from documents.

When the researcher asks participants in a study to keep journals, additional field issues surface. Journaling is a popular data collection process in case studies. What instructions should be given to individuals prior to writing in their journals? Are all participants equally comfortable with journaling? Is it appropriate, for example, with small children who express themselves well verbally but have limited writing skills? The researcher also may have difficulty reading the handwriting of participants who journal. Recording videotapes raises issues for the qualitative researcher such as keeping disturbing room sounds to a minimum, deciding on the best location for the camera,

Access/site questions:

- Difficulty making initial contact with person in the field
- Building trust or credibility at the field site (feeling like intruder)
- Gaining access to the site and individuals
- Getting people to respond to requests for information
- Deciding whether to collect information in the natural site
- Determining whether one can understand a setting when one is close to it

Observations:

- Determining whether fieldnotes are credible
- Writing down "jottings"
- Incorporating "quotes" into fieldnotes
- Assuming an observer role and how to change roles
- Learning how to best collect information from early field visits in case studies
- Learning how to "funnel" from broad observations to narrow ones

Interviews:

- Saying "little" during interview
- Having tapes that will work in the transcribing machine
- Scheduling a time for all to participate in a group interview
- Matching the "level" of questions to the ability of informants
- Realizing the costliness and lengthy process of transcribing data
- Using an appropriate level of questioning at the beginning of the interview
- Interruptions during an interview
- Difficulty scheduling an interview
- Having confidence in interviewing skills
- Having difficulty taking notes while interviewing
- Conducting interview with two or more individuals
- Encouraging all participants to talk in a group interview
- Asking appropriate questions
- Learning to listen rather than talking in interviews
- Handling emotional outbursts
- Addressing participants who do not want to be audiotaped
- Finding a transcriptionist and the right type of equipment in a case study and grounded theory project
- Moving from ice-breakers to questions in interview
- Addressing when interviewees stray from the interview questions
- Giving the interview questions to participants before the interview
- Working with the logistics of the tape-recording equipment
- "Bracketing" personal bias
- Focusing the questions to ask in a group interview

(continued)

Figure 7.7 Field Issues in Qualitative Research

Document research:
- Having difficulty locating materials
- Having difficulty obtaining permission to use materials
- Questioning the value of materials

Journals:
- Having people write complete journal entries
- Having difficulty reading handwritten journals
- Having informants express the difficulty of journaling
- Having informants express questions about how one might journal

Video materials:
- Having disturbing room sounds
- Having problems videotaping in a small room
- Having difficulties focusing and positioning the camera

Ethical issues:
- Protecting the anonymity of the informants
- Disclosing (or not) the purpose of the research
- Deciding whether (or how) to use information "shared off the record" in an interview in a case study
- Determining whether the researcher should share personal experiences

Figure 7.7 Continued

and determining whether to provide close-up shots versus distant shots.

Regardless of tradition of inquiry, a qualitative researcher faces many ethical issues that surface during data collection in the field and in analysis and dissemination of qualitative reports. The criteria of the American Anthropological Association (see Glesne & Peshkin, 1992) reflect appropriate standards. A researcher protects the anonymity of the informants, for example, by assigning numbers or aliases to individuals. A researcher develops case studies of individuals that represent a composite picture rather than an individual picture. Furthermore, to gain support from participants, a qualitative researcher conveys to participants that they are participating in a study, explains the purpose of the study, and does not engage in ***deception*** about the nature of the study. What if the study is on a sensitive topic and the participants decline to be involved if they are aware of the topic? This issue of disclosure of the researcher, widely discussed in cultural

anthropology (e.g., Hammersley & Atkinson, 1995), is handled by the researcher by presenting *general* information, not specific information about the study. Another issue likely to develop is when participants share information "off the record." Although in most instances this information is deleted from analysis by the researcher, the issue becomes problematic when the information harms individuals. I am reminded of a researcher who studied incarcerated Native Americans in prisons and learned about a potential "breakout" during one of the interviews. This researcher concluded that it would be a breach of faith with the informant if she reported the matter, and she kept quiet. Fortunately, the breakout was not attempted. A final ethical issue is whether the researcher shares experiences with informants in an interview setting such as in a case study, phenomenology, or ethnography. This sharing minimizes the "bracketing" that is essential to construct the meaning of participants in phenomenology and reduces information shared by informants in case studies and ethnographies.

STORING DATA

I am surprised at how little attention is given in books and articles about storing qualitative data. The approach to storage will reflect the type of information collected, which varies by tradition of inquiry. In writing a biographical life history, the researcher needs to develop a filing system for the "wad of handwritten notes or a tape" (Plummer, 1983, p. 98). Although his ideas are based on *quantitative* data, Davidson's (1996) suggestions about backing up information collected and noting changes made to the database represent sound advice for *qualitative* researchers. With the advent of the use of computers in qualitative research, more attention will likely be given to how qualitative data are organized and stored, whether the data are fieldnotes, transcripts, or rough jottings. With extremely large databases being used by some qualitative researchers, this aspect assumes major importance. A computer program, such as Folio VIEWS, provides a program for organizing, sorting, and making subsets of text data. As one example of a textbase managing program, Folio VIEWS enables the investigator to search and retrieve various combinations of words, phrases, coded segments, memos, or other material (Weitzman & Miles, 1995).

Some principles about data storage and handling that are especially well suited for qualitative research include the following:

- Always develop backup copies of computer files (Davidson, 1996).
- Use high-quality tapes for audio-recording information during interviews. Also, make sure that the size of the tapes fits the transcriber's machine.
- Develop a master list of types of information gathered.
- Protect the anonymity of participants by masking their names in the data.
- Convert word processing files over to ASCII files for easy entry into some qualitative computer programs (this topic will be addressed further in Chapter 8).
- Develop a data collection matrix as a visual means of locating and identifying information for a study.

FIVE TRADITIONS COMPARED

Returning again to Table 7.1, there are both differences and similarities among the activities of data collection for the five traditions of inquiry. Turning to differences, first, the diversity of forms of data collection is great. For case studies, the researcher uses multiple forms of data to build the in-depth case. For grounded theory studies, phenomenological projects, and biographies, investigators rely primarily on interviews. Ethnographers rely heavily on participant observation. Unquestionably, some mixing of forms occurs, but in general these patterns of collection by tradition hold true.

Second, the unit of data collection varies. Biographers, phenomenologists, and ground theorists study individuals; case study researchers examine groups of individuals participating in an event or activity or an organization; and ethnographers study entire cultural systems or some subcultures of the systems. Third, I found the amount of discussion about field issues to vary. Ethnographers have written extensively about field issues (e.g., Hammersley & Atkinson, 1995), thus reflecting the concerns of a stranger going into the field. Biographers are less specific about field issues (e.g., Denzin, 1989b), although

concerns about sources of bias surface in discussions about the classical approach to biographical writings (Plummer, 1983).

Fourth, the traditions vary in their intrusiveness of data collection. Conducting interviews seems less intrusive in phenomenological projects and grounded theory studies than does the high level of access needed in personal biographies, the prolonged stays in the field in ethnographies, and the immersion into programs or events in case studies.

In my review of the five traditions and data collection, I found overlap in several areas. A number of these were highlighted earlier in the chapter. All qualitative studies conducted in public organizations need to be approved by a human subjects review board. Also, the use of interviews and observations is central to many of the traditions. Furthermore, the recording devices such as observational and interview protocols can be similar regardless of tradition (although specific questions on each protocol will reflect the language of the tradition). Finally, the issue of storage of information is closely related to the form of data collection, and the basic objective of researchers, regardless of tradition, is to develop some filing and storing system for organized retrieval of information.

SUMMARY

In this chapter, I addressed several components of the data collection process. The researcher attends to locating a site or person to study, gaining access and building rapport at the site or with the individual, sampling purposefully using one of the many approaches to sampling in qualitative research, collecting information through as many as four forms (interviews, observations, documents, and audio-visual material), establishing approaches for recording information such as the use of interview or observational protocols, resolving field issues ranging from access to ethical concerns, and developing a system for storing and handling the databases. Applied to the five traditions of inquiry, the traditions differ in the diversity of information collected, the unit of study being examined, the extent of field issues, and the intrusiveness of the data collection effort. Researchers, regardless of tradition, need approval from review boards, engage in similar data collection of interviews and observations, and use similar recording protocols and forms for storing data.

▼ *ADDITIONAL READINGS*

For a discussion about purposeful sampling strategies, I recommend Miles and Huberman (1994).

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook of new methods* (2nd ed.). Thousand Oaks, CA: Sage.

For interviewing, I direct researchers to Kvale (1996), McCracken (1988), Rubin and Rubin (1995), Seidman (1991), and Weiss (1992).

Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

McCracken, G. (1988). *The long interview*. Newbury Park, CA: Sage.

Rubin, H. J., & Rubin, I. S. (1995). *Qualitative interviewing*. Thousand Oaks, CA: Sage.

Seidman, I. E. (1991). *Interviewing as qualitative research*. New York: Columbia University, Teachers College Press.

Weiss, R. S. (1992). *Learning from strangers: The art and method of qualitative interview studies*. New York: Free Press.

For discussions about making observations and taking fieldnotes, I suggest several writers: Bernard (1994), Bogdewic (1992), Emerson et al. (1995), Hammersley and Atkinson (1995), Jorgensen (1989), and Sanjek (1990).

Bernard, H. R. (1994). *Research methods in anthropology: Qualitative and quantitative approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Bogdewic, S. P. (1992). Participant observation. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (pp. 45-69). Newbury Park, CA: Sage.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago: University of Chicago Press.

Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). New York: Routledge.

Jorgensen, D. L. (1989). *Participant observation: A methodology for human studies*. Newbury Park, CA: Sage.

Sanjek, R. (1990). *Fieldnotes: The makings of anthropology*. Ithaca, NY: Cornell University Press.

For a discussion of field relations and issues, see Hammersley and Atkinson (1995) and Lofland and Lofland (1995).

Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). New York: Routledge.

Lofland, J., & Lofland, L. H. (1995). *Analyzing social settings: A guide to qualitative observation and analysis* (3rd ed.). Belmont, CA: Wadsworth.

EXERCISES

1. Gain some experience in collecting data for your project. Conduct either an interview or an observation and record the information on a protocol form. After this experience, identify issues that posed challenges in data collection.
2. It is helpful to design the data collection activities for a project. Examine Table 7.1 for the seven activities. Develop a matrix that describes data collection for all seven activities for your project.