WHAT TYPES OF QUALITATIVE DATA WILL YOU COLLECT?

Another aspect of qualitative data collection is to identify the types of data that will address your research questions. Thus, it is important to become familiar with your questions and topics and to review them prior to deciding on the types of qualitative data that you will collect. In qualitative research, you pose general, broad questions to participants and allow them to share their views relatively unconstrained by your perspective. In addition, you collect multiple types of information and may add new forms of data during the study to answer your questions. Furthermore, you engage in extensive data collection, spending a great deal of time at the site where people work, play, or engage in the phenomenon you wish to study. At the site, you will gather detailed information to establish the complexity of the central phenomenon.

We can see the varied nature of qualitative forms of data when they are placed into the following categories:

- Observations
- Interviews and questionnaires
- Documents
- Audiovisual materials

Specific examples of types of data in these four categories are shown in Figure 7.3. Variations on data collection in all four areas are emerging continuously. Most recently, video recordings, student classroom portfolios, and the use of e-mails are attracting increasing attention as forms of data. Table 7.1 shows each category of data collection listed, the type of data it yields, and a definition for that type of data. Now let's take a closer look at each of the four categories and their strengths and weaknesses.

FIGURE 7.3

Compendium of Data Collection Approaches in Qualitative Research

Observations

Gather fieldnotes by:

- Conducting an observation as a participant
- Conducting an observation as an observer
- Spending more time as a participant than observer
- Spending more time as an observer than a participant
- First observing as an "outsider," then participating in the setting and observing as an "insider"

Interviews and Questionnaires

Conduct an unstructured, open-ended interview and take interview notes.

Conduct an unstructured, open-ended interview; audio record the interview and transcribe it.

Conduct a semistructured interview; audio record the interview and transcribe it.

Conduct focus group interviews; audio record the interviews and transcribe them.

Collect open-ended responses to an electronic interview or questionnaire.

Gather open-ended responses to questions on a questionnaire.

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 of meetings, records or archival material).

Analyze school documents (e.g., attendance reports, retention rates, dropout rates, or discipline referrals).

Examine autobiographies and biographies.

Collect or draw maps and seating charts.

Examine portfolios or less formal examples of students' work.

Collect e-mails or electronic data.

Audiovisual Materials

Examine physical trace evidence (e.g., footprints in the snow).

Video record a social situation of an individual or group.

Examine photographs or video recordings.

Collect sounds (e.g., musical sounds, a child's laughter, or car horns honking).

Examine possessions or ritual objects.

Have participants take photos or videos.

Sources: Creswell and Poth (2018) and Mills (2011).

Observations

When educators think about qualitative research, they often have in mind the process of collecting observational data in a specific school setting. Unquestionably, observations

TABLE 7.1

Forms of Qualitative Data Collection

Forms of Data Collection	Type of Data	Definition of Type of Data
Observations	Field notes and drawings	Unstructured text data and pictures taken during observations by the researcher
Interviews and questionnaires	Transcriptions of open-ended interviews or open-ended questions on questionnaires	Unstructured text data obtained from transcribing audio recordings of interviews or by transcribing open-ended responses to questions on questionnaires
Documents	Hand-recorded notes about documents or optically scanned documents	Public (e.g., notes from meetings) and private (e.g., journals) records available to the researcher
Audiovisual materials	Pictures, photographs, video recording, objects, and sounds	Audiovisual materials consisting of images or sounds of people or places recorded by the researcher or someone else

represent a frequently used form of data collection, with the researcher able to assume different roles in the process (Creswell & Poth, 2018).

Observation is the process of gathering open-ended, firsthand information by observing people and places at a research site. As a form of data collection, observation has both advantages and disadvantages. Advantages include the opportunity to record information as it occurs in a setting, to study actual behavior, and to study individuals who have difficulty verbalizing their ideas (e.g., preschool children). Some of the disadvantages of observations are that you will be limited to those sites and situations where you can gain access, and in those sites, you may have difficulty developing rapport with individuals. This can occur if the individuals are unaccustomed to formal research (e.g., a nonuniversity setting). Observing in a setting requires good listening skills and careful attention to visual detail. It also requires management of issues such as the potential deception by people being observed and the initial awkwardness of being an "outsider" without initial personal support in a setting (Hammersley & Atkinson, 2007).

Observational Roles

Despite these potential difficulties, observation continues to be a well-accepted form of qualitative data collection. Using it requires that you adopt a particular role as an observer. No one role is suited for all situations; observational roles vary depending on your comfort at the site, your rapport with participants, and how best you can collect data to understand the central phenomenon. Although many roles exist (Creswell & Poth, 2018), you might consider one of three popular roles.

Role of a Participant Observer To truly learn about a situation, you can become involved in activities at the research site. This offers excellent opportunities to see experiences from the views of participants. A **participant observer** is an observational role adopted by researchers when they take part in activities in the setting they observe. As a participant, you assume the role of an "inside" observer who actually engages in activities at the study site. At the same time that you are participating in activities, you record information. This role requires seeking permission to participate in activities and assuming a comfortable role as observer in the setting. It is difficult to take notes while participating, and you may need to wait to write down observations until after you have left the research site.

Role of a Nonparticipant Observer In some situations, you may not be familiar enough with the site and people to participate in the activities. A **nonparticipant observer** is an observer who visits a site and records notes without becoming involved in the activities of the participants. The nonparticipant observer is an "outsider" who sits on the periphery or some advantageous place (e.g., the back of the classroom) to watch and record the phenomenon under study. This role requires less access than the participant role, and gatekeepers and individuals at a research site may be more comfortable with it. However, by not actively participating, you will remove yourself from actual experiences, and the observations you make may not be as concrete as if you had participated in the activities.

Changing Observational Roles In many observational situations, it is advantageous to shift or change roles, making it difficult to classify your role as strictly participatory or nonparticipatory. A **changing observational role** is one where researchers adapt their role to the situation. For example, you might first enter a site and observe as a nonparticipant, simply needing to "look around" in the early phases of research. Then you slowly become involved as a participant. Sometimes, the reverse happens, and a participant becomes a nonparticipant. However, entering a site as a nonparticipant is a frequently used approach. After a short time, when rapport is developed, you switch to being a participant in the setting. Engaging in both roles permits you to be subjectively involved in the setting and to see the setting more objectively.

Here is an illustration in which a researcher began as a nonparticipant and transformed into a participant during the process of observing:

> One researcher studying the use of laptops in a multicultural education methods class spent the first three visits to the class observing from the back row. He sought to learn the process involved in teaching the course, the instructor's interaction with students, and the instructor's overall approach to teaching. Then, on his fourth visit, students began using the laptops, and the observer became a participant by teaming with a student who used the laptop from her desk to interact with the instructor's website.

The Process of Observing

As we just saw in the discussion of different observational roles, the qualitative inquirer engages in a process of observing regardless of the role. This general process is outlined in the following steps:

1. *Select a site to be observed that can help you best understand the central phenomenon.* Obtain the required permissions needed to gain access to the site.
2. *Ease into the site slowly by looking around, getting a general sense of the site, and taking limited notes, at least initially.* Conduct brief observations at first because you will likely be overwhelmed with all the activities taking place. This slow entry helps to build rapport with individuals at the site and helps you assimilate the large amount of information.
3. *At the site, identify who or what to observe, when to observe, and how long to observe.* Gatekeepers can provide guidance as you make these decisions. The practical requirements of the situation, such as the length of a class period or the duration of the activity, will limit your participation.
4. *Determine, initially, your role as an observer.* Select from the roles of participant or nonparticipant during your first few observations. Consider whether it would be advantageous to change roles during the process to learn best about the individuals or site. Regardless of whether you change roles, consider what role you will use and your reasons for it.

FIGURE 7.4

Sample Field Notes from a Student's Observation of an Art Object

Observational Fieldnotes—*Art Object in the Classroom*
Setting: Classroom 306
Observer: J
Role of Observer: Observer of object
Time: 4:30 p.m., March 9, 2004
Length of Observation: 20 minutes

Description of Object	*Reflective Notes (insights, hunches, themes)*
4:35 p.m. *Touch J taps on the base. Gritty wood, pieced together unevenly. The object's top feels like a cheap wig. The base was moved and the caning was tight. The wicker feels smooth.*	*–Many students touch the object—most walk up slowly, cautiously.* *–Several good analogies come to mind.*
4:40 *Sight The object stands on four pegs that holds a square base. The base is decorated with scalloped carvings. The wood is a light, natural color and sanded smooth and finished. It is in the shape of a pyramid, cropped close at the bottom on the underside.*	*–This object is really hard to describe—perhaps I should use dimensions? But it has several parts.*
4:50 *Sound Students comment as they touched the object, "Oh, that's hair?" Is it securely fastened?" A slight rustling is heard from brushing the bristles . . ."*	*–Pickup on good quotes from the students.* *–"Sounds" could definitely be one of my themes!*
5:02 *The object smells like roof-dry slate. It is odorless. But it has a musty, dusty scent to the top half, and no one wants to sniff it.*	*–This object seems to change smells the more I am around it—probably a dusty scent fits it best.*

5. *Conduct multiple observations over time to obtain the best understanding of the site and the individuals.* Engage in broad observation at first, noting the general landscape of activities and events. As you become familiar with the setting, you can begin to narrow your observations to specific aspects (e.g., a small group of children interacting during reading time). A broad-to-narrow perspective is a useful strategy because of the amount of information available in an observation.
6. *Design some means for recording notes during an observation.* The data recorded during an observation are called **field notes**, text (words) recorded by the researcher during an observation in a qualitative study. Examine the sample field notes shown in Figure 7.4. In this example, the student-observer engaged in participant observation when the instructor asked the class to spend 20 minutes observing an art object that had been brought into the classroom. This object was not familiar to the students in the class. It was from Indonesia and had a square, bamboo base and a horsehair top. It was probably used for some religious activities. This was a good object to use for an observational activity because it could not be easily recognized or described. The instructor asked students to observe the object and record field notes describing the object and reflecting on their insights, hunches, and themes that emerged during the observation.

   As we see in Figure 7.4, one student recorded the senses—touch, sight, sound, and smell—of the object, recording thoughts every 5 minutes or so. Notice that the

student's field notes show complete sentences and notations about quotes from other students. The notes in the right column indicate that this student is beginning to reflect on the larger ideas learned from the experiences and to note how other students in the class are reacting to the object. The heading at the top of the field notes records essential information about the time, place, and activities observed.

7. *Consider what information you will record during an observation.* For example, this information might include portraits of the participants, the physical setting, particular events and activities, and personal reactions (Bogdan & Biklen, 2007). In observing a classroom, for example, you may record activities by the teacher, the students, the interactions between the students and teacher, and the student-to-student conversations.
8. *Record descriptive and reflective field notes.* **Descriptive field notes** record a description of the events, activities, and people (e.g., what happened). **Reflective field notes** record personal thoughts researchers have that relate to their insights, hunches, or broad ideas or themes that emerge during the observation (e.g., what sense you made of the site, people, and situation).
9. *Make yourself known but remain unobtrusive.* During the observation, be introduced by someone if you are an "outsider" or new to the setting or people. Be passive, be friendly, and be respectful of the people and site.
10. *After observing, slowly withdraw from the site.* Thank the participants and inform them of the use of the data and the availability of a summary of results when you complete the study.

Figure 7.5 summarizes the steps listed above in a checklist you might use to assess whether you are prepared to conduct an observation. The questions on this checklist represent roughly the order in which you might consider them before, during, and after the observation, but you can check off each question as you complete it.

Interviews

Equally popular to observation in qualitative research is interviewing. A qualitative **interview** occurs when researchers ask one or more participants general, open-ended questions and record their answers. The researcher then transcribes and types the data into a computer file for analysis.

FIGURE 7.5

Observational Checklist

_____ Did you gain permission to study the site?

_____ Do you know your role as an observer?

_____ Do you have a means for recording fieldnotes, such as an observational protocol?

_____ Do you know what you will observe first?

_____ Will you enter and leave the site slowly, so as not to disturb the setting?

_____ Will you make multiple observations over time?

_____ Will you develop rapport with individuals at the site?

_____ Will your observations change from broad to narrow?

_____ Will you take limited notes at first?

_____ Will you take both descriptive as well as reflective notes?

_____ Will you describe in complete sentences so that you have detailed fieldnotes?

_____ Did you thank your participants at the site?

In *qualitative* research, you ask **open-ended questions** so that the participants can best voice their experiences unconstrained by any perspectives of the researcher or past research findings. An **open-ended response** to a question allows the participant to create the options for responding. For example, in a qualitative interview of athletes in high schools, you might ask, "How do you balance participation in athletics with your schoolwork?" The athlete then creates a response to this question without being forced into response possibilities. The researcher often records the conversation and transcribes the information into words for analysis.

Interviews in qualitative research have both advantages and disadvantages. Some advantages are that they provide useful information when you cannot directly observe participants, and they permit participants to describe detailed personal information. Compared to the observer, the interviewer also has better control over the types of information received because the interviewer can ask specific questions to elicit this information.

Some disadvantages are that interviews provide only information "filtered" through the views of the interviewers (i.e., the researcher summarizes the participants' views in the research report). In addition, similar to observations, interview data may be deceptive and provide the perspective that the interviewee wants the researcher to hear. Another disadvantage is that the presence of the researcher may affect how the interviewee responds. Interviewee responses also may not be articulate, perceptive, or clear. In addition, equipment issues may be a problem, and you need to organize recording and transcribing equipment (if used) in advance of the interview. Also during the interview, you need to give some attention to the conversation with the participants. This attention may require saying little, handling emotional outbursts, and using icebreakers to encourage individuals to talk. With all these issues to balance, it is little wonder that inexperienced researchers express surprise about the difficulty of conducting interviews.

Types of Interviews and Open-Ended Questions on Questionnaires

Once you decide to collect qualitative interviews, you next consider what form of interviewing will best help you understand the central phenomenon and answer the questions in your study. There are a number of approaches to interviewing and using open-ended questions on questionnaires. Which interview approach to use will ultimately depend on the accessibility of individuals, the cost, and the amount of time available.

One-on-One Interviews The most time-consuming and costly approach is to conduct individual interviews. A popular approach in educational research, the **one-on-one interview** is a data collection process in which the researcher asks questions to and records answers from only one participant in the study at a time. In a qualitative project, you may use several one-on-one interviews. One-on-one interviews are ideal for interviewing participants who are not hesitant to speak, who are articulate, and who can share ideas comfortably.

Focus Group Interviews Focus groups can be used to collect shared understanding from several individuals as well as to get views from specific people. A **focus group interview** is the process of collecting data through interviews with a group of people, typically four to six. The researcher asks a small number of general questions and elicits responses from all individuals in the group. Focus groups are advantageous when the interaction among interviewees will likely yield the best information and when interviewees are similar to and cooperative with each other. They are also useful when the time to collect information is limited and individuals are hesitant to provide information (some individuals may be reluctant to provide information in any type of interview).

When conducting a focus group interview, encourage all participants to talk and to take their turn speaking. A focus group can be challenging for the interviewer who lacks control over the interview discussion. In addition, when focus groups are audio-recorded, the transcriptionist may have difficulty discriminating among the voices of individuals in the group. Another problem with conducting focus group interviews is that the researcher often has difficulty taking notes because so much is occurring.

Let's consider an example of a focus group interview procedure:

> High school students, with the sponsorship of a university team of researchers, conducted focus group interviews with other students about the use of tobacco in several high schools (Plano Clark et al., 2001). In several interviews, two student interviewers—one to ask questions and one to record responses—selected six students to interview in a focus group. These focus group interviews lasted one-half hour and the interviewers recorded the interview and took notes during the interview. Because the groups were small, the transcriptionist did not have difficulty transcribing the interview and identifying individual voices. At the beginning of the interview, each student stated his or her first name.

Telephone Interviews It may not be possible for you to gather groups of individuals for an interview or to visit one-on-one with single individuals. The participants in a study may be geographically dispersed and unable to come to a central location for an interview. In this situation, you can conduct telephone interviews. Conducting a **telephone interview** is the process of gathering data using the telephone and asking a small number of general questions. A telephone interview requires that the researcher use an adapter that plugs into both the phone and a digital recorder for a clear recording of the interview. One drawback of this kind of interviewing is that the researcher does not have direct contact with the participant. This causes limited communication that may affect the researcher's ability to understand the interviewee's perceptions of the phenomenon. Let's look at an example of a telephone interview procedure:

> In a study of academic department chairpersons in colleges and universities, Creswell, Wheeler, Seagren, Egly, and Beyer (1990) conducted open-ended telephone interviews lasting 45 minutes each with 200 chairpersons located on campuses in the United States. They first obtained the permission of these chairpersons to participate in an interview through contacting them by letter. They also scheduled a time that would be convenient for the interviewee to participate in a telephone interview. Next, they purchased recorders and adapters to conduct the interviews from office telephones. They asked open-ended questions such as "How did you prepare for your position?" The interviews yielded about 3,000 transcript pages. Analysis of these pages resulted in a report about how chairpersons enhance the professional development of faculty in their departments.

Web-Based Video Interviews An option that does allow both audio and visual communication at a distance is to conduct interviews through video conferences. Applications such as Skype, FaceTime, and Google Hangouts allow you to set up a video conference with anyone on the globe who has an Internet connection and account with that service. Other commercial programs, such as WebEx or Blue Jeans, may be available through your institution. **Web-based video interviews** consist of asking questions from participants and recording their responses. In addition to being able to see your

participants, video conferences address the problem of geographic distance. A researcher in South Africa can interview a participant in the United States at virtually no cost. Some programs allow you to record the conversation in the software. If not, you will have to use a digital recorder and ensure the volume is high enough on your computer or table. A drawback is the potential for a poor Internet connection, which can make it a frustrating experience and potentially unreliable.

E-Mail Interviews This is another type of interview useful in collecting qualitative data quickly from a geographically dispersed group of people. **E-mail interviews** consist of collecting open-ended data through interviews with individuals using e-mail. If you can obtain e-mail lists or addresses, this form of interviewing provides rapid access to large numbers of people and a detailed, rich text database for qualitative analysis. It can also promote a conversation between yourself as the researcher and the participants so that, through follow-up conversations, you may extend your understanding of the topic or central phenomenon being studied.

However, e-mail interviewing raises complex ethical issues, such as whether you have permission for individuals to participate in your interview and whether you will protect the privacy of responses. In addition, it may be difficult, under some circumstances, to obtain good lists of e-mail addresses that are current or the names of individuals who will be well suited to answer your questions. For example, how do you locate e-mail addresses for children under the age of 10 who probably do not have such an address? Despite these potential shortcomings, e-mail interviewing as a form of collecting data will probably increase due to expanding technology. Consider this example of an open-ended e-mail interview:

> Four researchers combined resources to develop an e-mail list of faculty who might be teaching courses in mixed methods research (Creswell, Tashakkori, Jensen, & Shapely, 2003). They began with an e-mail list of 31 faculty and sent an open-ended interview to these faculty, inquiring about their teaching practices. They asked, for example, "Have you ever taught a course with a content of mixed methods research?" "Why do you think students enroll in a mixed methods course?" "What is your general assessment of mixed methods teaching?" After receiving the e-mail interview, the participants answered each question by writing about their experiences and sent the survey back using the "reply" feature of their e-mail program. This procedure led to a qualitative text database of open-ended responses from a large number of individuals who had experienced mixed methods research.

Open-Ended Questions on Questionnaires On questionnaires, you may ask some questions that are closed ended and some that are open ended. The advantage of this type of questioning is that your predetermined closed-ended responses can net useful information to support theories and concepts in the literature. The open-ended responses, however, permit you to explore reasons for the closed-ended responses and identify any comments people might have that are beyond the responses to the closed-ended questions. The drawback of this approach is that you will have many responses—some short and some long—to analyze. In addition, the responses are detached from the context—the setting in which people work, play, and interact. This means that the responses may not represent a fully developed database with rich detail, as is often gathered in qualitative research. To analyze open-ended responses, qualitative researchers look for overlapping themes in the open-ended data, and some researchers count the number of themes or the number of times that the participants

mention the themes. For example, a researcher might ask a closed-ended question followed by an open-ended question:

> Please tell me the extent of your agreement or disagreement with this statement: "Student policies governing binge drinking on campus should be more strict."
>
> _____ Do you strongly agree?
> _____ Do you agree?
> _____ Are you undecided?
> _____ Do you disagree?
> _____ Do you strongly disagree?
>
> Please explain your response in more detail.

In this example, the researcher started with a closed-ended question and five predetermined response categories and followed it with an open-ended question in which the participants indicate reasons for their responses.

Conducting Interviews

In all the various forms of interviewing, several general steps are involved in conducting interviews or constructing open-ended questionnaires:

1. *Identify the interviewees.* Use one of the purposeful sampling strategies discussed earlier in this chapter.
2. *Determine the type of interview you will use.* Choose the one that will allow you to best learn the participants' views and answer each research question. Consider a telephone interview, a focus group interview, a one-on-one interview, an e-mail interview, a questionnaire, or some combination of these forms.
3. *During the interview, gather an audio recording of the questions and responses.* This will give you an accurate record of the conversation. Use adequate recording procedures, such as lapel microphone equipment (small microphones that are hooked onto a shirt or collar) for one-on-one interviewing and a suitable directional microphone (one that picks up sounds in all directions) for focus group interviewing. Have an adequate digital recorder and telephone adapter for telephone interviews.
4. *Take brief notes during the interview.* Although it is sound practice to record the audio of the interview, take notes in the event the recorder malfunctions. You record these notes on a form called an *interview protocol*, discussed later in this chapter. Recognize that notes taken during the interview may be incomplete because of the difficulty of asking questions and writing answers at the same time. An abbreviated form for writing notes (e.g., short phrases followed by a dash) may speed up the process.
5. *Locate a quiet, suitable place for conducting the interview.* If possible, interview at a location free from distractions and choose a physical setting that lends itself to audio recording. This means, for example, that a busy teachers' or faculty lounge may not be the best place for interviewing because of the noise and the interruptions that may occur.
6. *Obtain consent from the interviewee to participate in the study.* Obtain consent by having interviewees complete an informed consent form when you first arrive. Before starting the interview, convey to the participants the purpose of the study, the time the interview will take to complete, the plans for using the results from the interview, and the availability of a summary of the study when the research is completed.

7. *Have a plan but be flexible.* During the interview, stick with the questions but be flexible enough to follow the conversation of the interviewee. Complete the questions within the time specified (if possible) to respect and be courteous of the participants. Recognize that a key to good interviewing is to be a good listener.
8. *Use probes to obtain additional information.* **Probes** are subquestions under each question that the researcher asks to elicit more information. Use them to clarify points or to have the interviewee expand on ideas. These probes vary from exploring the content in more depth (elaborating) to asking the interviewee to explain the answer in more detail (clarifying). Table 7.2 shows these two types of probes. The table uses a specific illustration to convey examples of both clarifying and elaborating probes.
9. *Be courteous and professional when the interview is over.* Complete the interview by thanking the participant, assuring him or her of the confidentiality of the responses, and asking if he or she would like a summary of the results of the study.

Figure 7.6 summarizes good interviewing procedures in a checklist adapted from Mills and Gay (2016). The questions on the checklist represent the order in which you might consider them before, during, and after the interview.

Let's return to Maria, who needs to decide what data collection procedure to use. Because she has experience talking with students and fellow teachers, she decides that interviewing would be best. She plans to conduct five interviews with students and five with teachers in her high school. After obtaining permission from the school district and the principal of her school, she must obtain permission from the students (and their parents or guardians) and the teachers. To select these individuals, she will purposefully sample individuals who can speak from different perspectives (maximal variation sampling). She realizes that there are different groups in the school, such as the "athletes," the "singers," the "class officers," and the "cheerleaders." She identifies one student from each group, realizing that she will likely obtain diverse perspectives representing complex views on the topic of weapon possession.

Next, she selects five teachers, each representing different subject areas, such as social studies, science, physical education, music, and drama. After that, she develops five open-ended questions, such as "How do weapons come into our school?" and "What types of weapons are in our school?" She needs to schedule interviews, conduct them, record information on using a digital recorder, take notes, and respect the views and rights of the students and faculty participating in the interviews.

TABLE 7.2

Types of Probes Used in Qualitative Interviewing

	Examples	
	Clarifying Probes	**Elaborating Probes**
A question in the study asks, "What has happened since the event that you have been involved in?" Assume that the interviewee says, "Not much" or simply does not answer.	Probe areas	"Tell me more."
	Comments to other students: "Tell me about discussions you had with other students."	"Could you explain your response more?"
	Role of parents: "Did you talk with your parents?"	"I need more detail."
	Role of news media: "Did you talk with any media personnel?"	"What does 'not much' mean?"

FIGURE 7.6

Checklist for Interviewing

_____ Who will participate in your interviews?
_____ What types of interviews are best to conduct?
_____ Is the setting for your interview comfortable and quiet?
_____ If you are audiotaping, have you prepared and tested the equipment?
_____ Did you obtain consent from the participants to participate in the interview?
_____ Did you listen more and talk less during the interview?
_____ Did you probe during the interview? (ask to clarify and elaborate)
_____ Did you avoid leading questions and ask open-ended questions?
_____ Did you keep participants focused and ask for concrete details?
_____ Did you withhold judgments and refrain from debating with participants about their views?
_____ Did you withhold offering advice and suggestions and focus on the task of gathering participant views?
_____ Were you courteous and did you thank the participants after concluding the interview?

Source: Adapted from Mills, G. E., & Gay, L. R. © 2016. *Educational research: Competencies for analysis and application* (11th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall, p. 551. Reprinted and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, NJ.

As you read this procedure, what are its strengths and its limitations? List these strengths and weaknesses.

Documents

A valuable source of information in qualitative research can be documents. **Documents** consist of public and private records that qualitative researchers obtain about a site or participants in a study and can include newspapers, minutes of meetings, personal journals, and letters. These sources provide valuable information in helping researchers understand central phenomena in qualitative studies. They represent public and private documents. Examples of public documents are minutes from meetings, official memos, records in the public domain, and archival material in libraries. Private documents consist of personal journals and diaries, letters, personal notes, and jottings individuals write to themselves. Materials such as e-mails and website data illustrate both public and private documents and represent a growing data source for qualitative researchers.

Documents represent a good source for text (word) data for a qualitative study. They provide the advantage of being in the language and words of the participants, who have usually given thoughtful attention to them. They are also ready for analysis without the necessary transcription that is required with observational or interview data.

On the negative side, documents are sometimes difficult to locate and obtain. Information may not be available to the public. It may be located in distant archives, requiring the researcher to travel, which takes time and can be expensive. Furthermore, the documents may be incomplete, inauthentic, or inaccurate. For example, not all minutes from school board meetings are accurate because board members may not review them for accuracy. In personal documents such as diaries or letters, the handwriting may be hard to read, making it difficult to decipher the information.

Collecting Documents

With so much variation in the types of documents, there are many procedures for collecting them. Here are several useful guidelines for collecting documents in qualitative research:

1. Identify the types of documents that can provide useful information to answer your qualitative research questions.
2. Consider both public (e.g., school board minutes) and private documents (e.g., personal diaries) as sources of information for your research.
3. Once the documents are located, seek permission to use them from the appropriate individuals in charge of the materials.
4. If you ask participants to keep a journal, provide specific instructions about the procedure. These guidelines might include what topics and format to use, the length of journal entries, and the importance of writing their thoughts legibly.
5. Once you have permission to use documents, examine them for accuracy, completeness, and usefulness in answering the research questions in your study.
6. Record information from the documents. This process can take several forms, including taking notes about the documents or, if possible, scanning or taking a picture of them so that a text (or word) file is created for each document, e-mailing the document, or saving it to a secure location in the cloud (e.g., Box, Dropbox). You can easily save news stories (e.g., speeches by presidential candidates) from websites to form a qualitative text database.

Collecting personal documents can provide a researcher with a rich source of information. For example, consider a study that used journals prepared by several women:

> An important source for learning about women in superintendent positions is for them to keep a personal journal or diary of their experiences. A researcher asked three women superintendents to keep a diary for 6 months and record their reactions to being a woman in their capacity of conducting official meetings made up primarily of men.

These journals were useful for learning about the working lives of women in educational settings.

Audiovisual Materials

The final type of qualitative data to collect is visual images. **Audiovisual materials** consist of images or sounds that researchers collect to help them understand the central phenomenon under study. Used with increasing frequency in qualitative research, images or visual materials such as photographs, video recordings, digital images, paintings and pictures, and unobtrusive measures (e.g., evidence deduced from a setting, such as physical traces of images like footsteps in the snow; see Webb's [1966] discussion about unobtrusive measures) are all sources of information for qualitative inquiry. One approach in using photography is the technique of photo elicitation. In this approach, participants are shown pictures (their own or those taken by the researcher) and asked to discuss the contents (Wang & Burris, 1997). These pictures might be personal photographs or drawings.

The advantage of using visual materials is that people easily relate to images because they are so pervasive in our society. Images provide an opportunity for the participants to share directly their perceptions of reality. Images such as videos and films offer extensive data about real life as people visualize it. A potential disadvantage of using images is that they are difficult to analyze because of their rich information (e.g., how do you make sense of all the aspects apparent in 50 drawings by preservice teachers of what it is

like to be a science teacher?). In addition, you as a researcher may influence the data collected. In selecting the photo album to examine or requesting that a certain type of drawing be sketched, you may impose your meaning of the phenomenon on participants, rather than obtain the participants' views. When video recording, you face the issues of what to video, where to place the camera, and the need to be sensitive with camera-shy individuals. Video data are further complicated because you will have both audio and a moving image to analyze.

Collecting Audiovisual Materials

Despite these potential problems, audiovisual material is becoming more popular in qualitative research. As more people own smartphones and tablets, it is easier to record audio and video and store it. The steps involved in collecting audiovisual material are similar to those used in collecting documents:

1. Determine what visual material can provide information to answer research questions and how that material might augment existing forms of data, such as interviews and observations.
2. Identify the audiovisual material available and obtain permission to use it. This permission might require asking all students in a classroom, for example, to sign informed consent forms and to have their parents sign them also.
3. Check the accuracy and authenticity of the audiovisual material if you do not record it yourself. One way to check for accuracy is to contact and interview the photographer, videographer, or the individuals represented in the pictures.
4. Collect the data and organize it. You will likely store the data digitally, but it may need to be organized. Video data, in particular, can produce files that are quite large.

To illustrate the use of visual material, look at an example in which the researcher distributed tablets to obtain photographs:

> A researcher gives tablets to 40 male and 40 female fourth graders in a science unit to record their meaning of the environment. The participants are asked to take 24 pictures of images that represent attempts to preserve the environment in our society. As a result, the researcher obtains pictures from each child that can be used to understand how young people look at the environment. Understandably, photos of squirrels and outside pets dominate the collection of pictures in this database.

WHAT PROCEDURES WILL BE USED TO RECORD DATA?

An essential process in qualitative research is recording data (Lofland & Lofland, 1995). This process involves recording information through research protocols, collecting data so that you can anticipate potential problems, and bringing sensitivity to ethical issues that may affect the quality of the data.

Using Protocols

As already discussed, for documents and visual materials, the process of recording information may be informal (taking notes) or formal (optically scanning the material to develop a complete computer text file). For observations and interviews, qualitative inquirers use

specially designed protocols. **Data-recording protocols** are forms designed and used by qualitative researchers to record information during observations and interviews.

An Interview Protocol

During interviewing, it is important to have some means for structuring the interview and taking careful notes. As already mentioned, audio recording of interviews provides a detailed record of the interview. As backup, you need to take notes during the interview and have ready the questions to be asked. An **interview protocol** serves the purpose of reminding you of the questions and provides a means for recording notes. It is a form designed by the researcher that contains instructions for the process of the interview, the questions to be asked, and space to take notes of responses from the interviewee.

Development and Design of an Interview Protocol To best understand the design and appearance of this form, examine the qualitative interview protocol used during a study of the campus reaction to a gunman who threatened students in a classroom (Asmussen & Creswell, 1995), shown in Figure 7.7. This figure is a reduced version of the actual protocol; in the original protocol, more space was provided between the questions to record answers. Figure 7.7 illustrates the components that you might design into an interview protocol:

- It contains a header to record essential information about the interview, statements about the purpose of the study, a reminder to review the consent form, and a suggestion to make preliminary tests of the recording equipment. Other information you might include in the header would be the organization or work affiliation of the interviewees; their educational background and position; the number of years they have been in the position; and the date, time, and location of the interview.
- Following this header are five brief open-ended questions that allow participants maximum flexibility for responding to the questions. The first question serves the purpose of an icebreaker (sometimes called the "grand tour" question) to relax the interviewees and motivate them to talk. This question should be easy to understand and cause the participants to reflect on experiences that they can easily discuss, such as "Please describe your role in the incident." The final question on this particular instrument helps the researcher locate additional people to study.
- The core questions, questions 2 through 4, address major research questions in the study. For those new to qualitative research, you might ask more than four questions to help elicit more discussion from interviewees and move through awkward moments when no one is talking. However, the more questions you ask, the more you are examining what you seek to learn, rather than learning from the participant. There is often a fine line between your questions being too detailed or too general. A pilot test of them on a few participants can usually help you decide which ones to use.
- In addition to the five questions, you might use probes to encourage participants to clarify what they are saying and to urge them to elaborate on their ideas.
- You provide space between the questions so that you can take short notes about comments made by interviewees. Your notes should be brief, and you can develop an abbreviated form for stating them. The style for recording these notes varies from researcher to researcher.
- It is helpful for you to memorize the wording and the order of the questions to minimize losing eye contact. Provide appropriate verbal transitions from one question to the next. Recognize that individuals do not always respond directly to the question you ask: When you ask question 2, for example, they may jump ahead and respond to question 4.

FIGURE 7.7

Sample Interview Protocol

Interview Protocol

Project: University Reaction to a Gunman Incident

Time of Interview:
Date:
Place:
Interviewer:
Interviewee:
Position of Interviewee:

[Describe here the project, telling the interviewee about (a) the purpose of the study, (b) the individuals and sources of data being collected, (c) what will be done with the data to protect the confidentiality of the interviewee, and (d) how long the interview will take.]
[Have the interviewee read and sign the consent form.]
[Turn on the recorder and test it.]

Questions:

1. Please describe 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. Whom should we talk to to find out more about campus reaction to the incident?

(Thank the individuals for their cooperation and participation in this interview. Assure them of the confidentiality of the responses and the potential for future interviews.)

Source: Asmussen and Creswell (1995).

- Closing comments remind you to thank the participants and assure them of the confidentiality of the responses. This section may also include a note to ask the interviewees if they have any questions and a reminder to discuss the use of the data and the dissemination of information from the study.

An Observational Protocol

You use an observational protocol to record information during an observation, just as in interviewing. This protocol applies to all the observational roles mentioned earlier. An **observational protocol** is a form designed by the researcher before data collection that is used for taking field notes during an observation. On this form, researchers record a chronology of events, a detailed portrait of an individual or individuals, a picture or

map of the setting, or verbatim quotes of individuals. As with interview protocols, the design and development of observational protocols will ensure that you have an organized means for recording and keeping observational field notes.

Development and Design of an Observational Protocol You have already seen a sample observational protocol in Figure 7.4, in which the student took notes about the art object in class. An observational protocol such as that one permits qualitative researchers to record information they see at the observation site. This information is both a description of activities in the setting and a reflection about themes and personal insights noted during the observation. For example, examine again the sample observational protocol shown in Figure 7.4. This sample protocol illustrates the components typically found on a recording form in an observation:

- The protocol contains a header where you record information about the time, place, setting, and your observational role.
- You write in two columns following the header. These columns divide the page for recording into two types of data: a description of activities and a reflection about themes, quotes, and personal experiences of the researcher.
- The exact nature of this description may vary. Figure 7.4 illustrates possible topics for description. For example, you may include a description of the chronological order of events. This description is especially useful if the observer is examining a process or event. You may also describe the individuals, physical setting, events, and activities (Bogdan & Biklen, 2007). You may also sketch a picture of the site to facilitate remembering details of the setting for the final written report.
- Reflective notes record your experiences as a researcher, such as your hunches about important results and insights or emerging themes for later analysis.

Think-Aloud about Observing

We typically ask our students to practice gathering qualitative data by observing a setting. One of my favorite settings is the campus recreational center, where they can watch students learn how to climb the "wall." It is an artificial wall created so that students can learn how to rock climb. At this site, we typically find students who are learning how to climb the wall and an instructor who is giving climbing lessons. The wall itself is about 50 feet high and has strategically located handholds to assist the climbers. The wall contains several colored banners positioned for climbers to use to scale the wall. The objective is for a student to climb to the top of the wall and then rappel down.

Before the observation, my students always ask what they should observe. Here are the instructions that we give them:

- Design an observational protocol using Figure 7.4 as a guide.
- Go to the recreational center and to the base of the wall. Find a comfortable place to sit on one of the benches in front of the wall and then observe for about 10 minutes without recording information. Initially, simply observe and become acclimated to the setting.
- After these 10 minutes, start focusing on one activity at the site. It may be a student receiving instructions about how to put on the climbing gear, students scaling the wall, or other students waiting their turn to climb.
- Start recording descriptive field notes. Consider a chronology of events, portraits of individuals, or a sketch of the site. To provide a creative twist to this exercise, we ask students to describe information about two of the following four senses: sight, sound, touch, or smell.

- Also record reflective notes during the observation.
- After 30 minutes, the observational period ends, and we ask students to write a brief qualitative passage about what they observed, incorporating both their descriptive and their reflective field notes. This final request combines data collection (observing), data analysis (making sense of their notes), and report writing (trying to compose a brief qualitative research narrative).

WHAT FIELD AND ETHICAL ISSUES NEED TO BE ANTICIPATED?

When collecting data, researchers who engage in qualitative studies typically face issues that they need to resolve. In addition, because qualitative research involves going to the research sites of the participants, staying a considerable time, and asking detailed questions, ethical issues are likely to arise that need to be anticipated.

Field Issues

Prior to a study, anticipate potential issues that might arise during data collection. Figure 7.8 lists issues and categorizes them according to the type of data you will be collecting. These issues include access to site problems, observations, interviews, document research, journals, and the use of audiovisual materials:

- *Access.* Anticipate the amount of time it will take to recruit participants to your study and the difficulty of recruitment. Some useful strategies include providing a small financial incentive for individuals to participate. In addition, remind participants a day or two before data collection of the exact time and day you will observe or interview them. Stage the data collection so that they will feel comfortable responding and schedule it at a time that is most convenient to them. Be realistic about the amount of time the data collection will take and convey this time to the participants.
- *Observing.* You need to know your observational role (e.g., participant or nonparticipant) and clearly convey this role to your participants. Try not to take in everything the first time you observe; form general impressions first and then narrow your scope of observation (i.e., funnel approach). Take time to record your notes immediately after you observe so that you do not forget important details (e.g., quotes).
- *Interviews.* Prepare your equipment adequately. Check the functioning of your equipment prior to your interview. During the actual interview, use icebreakers to open the conversation, keep your opinions to yourself, and be prepared to keep the interviewee on track. Interviewees may not answer each question in order, but make sure that they answer each of your questions. Schedule your time so that you cover all the questions on your interview protocol. Recognize that transcribing audio recordings takes substantial time and schedule for it in your research plan.
- *Documents.* Anticipate the amount of time that may be required to locate, obtain permission for, and secure both public and private documents for your research.

FIGURE 7.8

Field Issues in Qualitative Research

Access

- 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 has sufficient "distance" to site

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
- 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 interviews with two or more individuals
- encouraging all participants to talk in a group interview
- asking appropriate questions
- learning to listen rather than talk in interviews
- handling emotional outbursts
- addressing participants who do not want to be recorded
- finding a transcriptionist and the right type of equipment in a case study and grounded theory project
- moving from icebreakers to questions in the interview
- addressing when interviewees stray from the questions
- giving the interview questions to participants before the interview
- working with the logistics of the recording equipment
- "bracketing" personal bias
- focusing the questions to ask in a group interview

Documents

- having difficulty locating materials
- having difficulty obtaining permission to use materials
- having people write complete journal entries
- having difficulty reading handwritten journals
- having informants express the difficulty of journaling
- questioning the value of materials
- having informants ask questions about how one might journal

Audiovisual Materials

- having disruptive room sounds
- having problems video recording in a small room
- having difficulties focusing and positioning the camera

Source: Adapted from Creswell and Poth (2018).

Always maintain a critical eye toward the documents you obtain. As much as possible, check them out to make sure they are credible and accurate. If you ask participants to keep a journal, provide clear instructions about the topics to be included in their journals. Recognize that younger children need more specific instructions than older children do. Ask participants to write as legibly as possible in their journals.

- *Audiovisual materials.* When you record video, plan ahead to keep the room as quiet as possible, place the camera where it will be least obtrusive, and openly discuss with the participants whether they are comfortable being video-recorded. If you plan to collect photographs from participants, give clear instructions about what they need to photograph or the nature of the photographs you will be collecting from them. Similar to documents, if you collect artifacts, drawings, or relics, check their authenticity as a useful record for your qualitative research.