Chapter 9 Qualitative Methods

Qualitative methods demonstrate a different approach to scholarly inquiry than methods of quantitative research. Although the processes are similar, qualitative methods rely on text and image data, have unique steps in data analysis, and draw on diverse designs. Writing a method section for a proposal or study for qualitative research partly requires educating readers as to the intent of qualitative research, mentioning specific designs, carefully reflecting on the role the researcher plays in the study, drawing from an ever-expanding list of types of data sources, using specific protocols for recording data, analyzing the information through multiple steps of analysis, and mentioning approaches for documenting the methodological integrity or accuracy—or validity—of the data collected. This chapter addresses these important components of writing a good qualitative method section into a proposal or study. Table 9.1 presents a checklist for reviewing the qualitative methods section of your project to determine whether you have addressed important topics.

Table 9.1 A Checklist of Questions for Designing a Qualitative Procedure

_____	Are the basic characteristics of qualitative studies mentioned?
_____	Is the specific type of qualitative design to be used in the study mentioned? Is the history of, a definition of, and applications for the design mentioned?
_____	Does the reader gain an understanding of the researcher's role or reflexivity in the study (past historical, social, cultural experiences, personal connections to sites and people, steps in gaining entry, and sensitive ethical issues) and how they may shape interpretations made in the study?
_____	Is the purposeful sampling strategy for sites and individuals identified?
_____	Is a clear recruitment strategy for enrolling participants mentioned?
_____	Are the specific forms of data collection mentioned and a rationale given for their use?
_____	Are the procedures for recording information during the data collection detailed (such as protocols)?
_____	Are the data analysis steps identified?
_____	Is there evidence that the researcher has organized the data for analysis?
_____	Has the researcher reviewed the data generally to obtain a sense of the information?
_____	Are the ways that the data will be represented mentioned—such as in tables, graphs, and figures?
_____	Has the researcher coded the data?
_____	Have the codes been developed to form a description and/or to identify themes?
_____	Are the themes interrelated to show a higher level of analysis and abstraction?
_____	Have the bases for interpreting the analysis been specified (personal experiences, the literature, questions, action agenda)?
_____	Has the researcher mentioned the outcome of the study (developed a theory, provided a complex picture of themes)?
_____	Have multiple strategies been cited for validating the findings?

The qualitative method section of a proposal requires attention to topics that are similar to a quantitative (or mixed methods) project. These involve telling the reader about the design being used in the study and, in this

case, the use of qualitative research and its basic intent. It also involves discussing the sample for the study and the overall data collection and recording procedures. It further expands on the data analysis steps and the methods used for presenting the data, interpreting it, validating it, and indicating the potential outcomes of the study. In contrast to other designs, the qualitative approach includes comments by the researcher about their role and their self-reflection (or reflexivity, it is called), and the specific type of qualitative strategy being used. Further, because the writing structure of a qualitative project may vary considerably from study to study, the method section should also include comments about the nature of the final written product.

The Characteristics of Qualitative Research

For many years, qualitative writers had to discuss the characteristics of qualitative research and convince faculty and audiences as to their legitimacy. Now these discussions are less frequently found in the literature and there is some consensus as to what constitutes qualitative inquiry. Thus, our suggestions about the method section of a project or proposal are as follows:

- Review the needs of potential audiences for the proposal or study. Decide whether audience members are knowledgeable enough about the characteristics of qualitative research that this section is not necessary. For example, although qualitative research is typically accepted and well-known in the social sciences, it has emerged in the health sciences only in the last couple of decades. Thus, for health science audiences, a review of the basic characteristics will be important.

- If there is some question about the audience's knowledge, present the basic characteristics of qualitative research and consider discussing a recent qualitative research journal article (or study) to use as an example to illustrate the characteristics.

- If you present the basic characteristics, what ones should you mention? A number of authors of introductory texts convey these characteristics, such as Creswell (2016), Hatch (2002), and Marshall and Rossman (2016).

  - *Natural setting:* Qualitative researchers tend to collect data in the field at the site where participants experience the issue or problem under study. Researchers do not bring individuals into a lab (a contrived situation), nor do they typically send out instruments for individuals to complete. This up-close information gathered by actually talking directly to people and seeing them behave and act within their context is a major characteristic of qualitative research. In the natural setting, the researchers have face-to-face interaction, often extending over a prolonged period of time.

  - *Researcher as key instrument:* Qualitative researchers collect data themselves through examining documents, observing behavior, or interviewing participants. They may use a protocol—an instrument for recording data—but the researchers are the ones who actually gather the information and interpret it. They do not tend to use or rely on questionnaires or instruments developed by other researchers.

  - *Multiple sources of data:* Qualitative researchers typically gather multiple forms of data, such as interviews, observations, documents, and audiovisual information rather than rely on a single data source. These are all open-ended forms of data in which the participants share their ideas freely, not constrained by predetermined scales or instruments. Then the researchers review all of the data, make sense of it, and organize it into codes and themes that cut across all of the data sources.

  - *Inductive and deductive data analysis:* Qualitative researchers typically work inductively, building patterns, categories, and themes from the bottom up by organizing the data into increasingly more abstract units of information. This inductive process illustrates working back and forth between the themes and the database until the researchers have established a comprehensive set of themes.

Then deductively, the researchers look back at their data from the themes to determine if more evidence can support each theme or whether they need to gather additional information. Thus, while the process begins inductively, deductive thinking also plays an important role as the analysis moves forward.

- *Participants' meanings:* In the entire qualitative research process, the researchers keep a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researchers bring to the research or that writers express in the literature.

- *Emergent design:* The research process for qualitative researchers is emergent. This means that the initial plan for research cannot be tightly prescribed, and some or all phases of the process may change or shift after the researcher enters the field and begins to collect data. For example, the questions may change, the forms of data collection may shift, and the individuals studied and the sites visited may be modified. These shifts signal that the researchers are delving deeper and deeper into the topic or the phenomenon under study. The key idea behind qualitative research is to learn about the problem or issue from participants and to address the research to obtain that information.

- *Reflexivity:* In qualitative research, inquirers reflect about how their role in the study and their personal background, culture, and experiences hold potential for shaping their interpretations, such as the themes they advance and the meaning they ascribe to the data. This aspect of the methods is more than merely advancing biases and values in the study, but how the background of the researchers actually may shape the direction of the study.

- *Holistic account:* Qualitative researchers try to develop a complex picture of the problem or issue under study. This involves reporting multiple perspectives, identifying the many factors involved in a situation, and generally sketching the larger picture that emerges. This larger picture is not necessarily a linear model of cause and effect but rather a model of multiple factors interacting in different ways. This picture, qualitative researchers would say, mirrors real life and the ways that events operate in the real world. A visual model of many facets of a process or a central phenomenon aids in establishing this holistic picture (see, for example, Creswell & Brown, 1992).

Qualitative Designs

Beyond these general characteristics are more specific approaches (i.e., strategies of inquiry, designs, or procedures) in conducting qualitative research (Creswell & Poth, 2018). These approaches have emerged in the field of qualitative research since it has matured in the social sciences since the early 1990s. They include procedures for data collection, analysis, and writing, but they originated out of disciplines in the social sciences. Many approaches exist, such as the 28 identified by Tesch (1990), the 22 types in Wolcott's (2009) tree, and the five approaches to qualitative inquiry by Creswell and Poth (2018), and Creswell (2016). Marshall and Rossman (2016) discussed five types common across five different authors. As mentioned in [Chapter 1](#), we recommend that qualitative researchers choose from among the possibilities, such as narrative, phenomenology, ethnography, case study, and grounded theory. We selected these five because they are popular across the social and health sciences today. Others exist that have been addressed adequately in qualitative books, such as participatory action research (Kemmis & Wilkinson, 1998), discourse analysis (Cheek, 2004), or participatory action research (Ivankova, 2015). In these approaches, researchers study individuals (narrative, phenomenology); explore processes, activities, and events (case study, grounded theory); or learn about broad culture-sharing behavior of individuals or groups (ethnography).

In writing a procedure for a qualitative proposal, consider the following **research tips**:

- Identify the specific approach that you will be using and provide references to the literature that discusses the approach.
- Provide some background information about the approach, such as its discipline origin, the applications of it (preferably to your field), and a brief definition of it (see [Chapter 1](#) for the five approaches or designs).
- Discuss why it is an appropriate strategy to use in the proposed study.
- Identify how the use of the approach will shape many aspects of the design process, such as the title, the problem, the research questions, the data collection and analysis, and the report write-up.

The Researcher's Role and Reflexivity

As mentioned in the list of characteristics, qualitative research is interpretative research; the inquirer is typically involved in a sustained and intensive experience with participants. This introduces a range of strategic, ethical, and personal issues into the qualitative research process (Locke, Spirduso, & Silverman, 2013). With these concerns in mind, inquirers explicitly identify reflexively their biases, values, and personal background, such as gender, history, culture, and socioeconomic status (SES) that shape their interpretations formed during a study. In addition, gaining entry to a research site and the ethical issues that might arise are also elements of the researcher's role.

Reflexivity requires commenting on two important points:

- *Past experiences.* Include statements about past experiences with the research problem or with the participants or setting that help the reader understand the connection between the researchers and the study. These experiences may involve participation in the setting, past educational or work experiences, or culture, ethnicity, race, SES, or other demographics that tie the researchers directly to the study.
- *How past experiences shape interpretations.* Be explicit, then, about how these experiences may potentially shape the interpretations the researchers make during the study. For example, the experiences may cause researchers to lean toward certain themes, to actively look for evidence to support their positions, and to create favorable or unfavorable conclusions about the sites or participants.

How can reflexive thinking be incorporated into your qualitative study (Creswell, 2016)? You can write notes about your personal experiences during the study. These notes might include observations about the process of data collection, hunches about what you are learning, and concerns about reactions of participants to the research process. These ideas can be written as **memos**—notes written during the research process that reflect on the process or that help shape the development of codes and themes. In writing these reflective notes, how do you know whether you are being sufficiently reflexive for a qualitative study? Sufficient reflexivity occurs when researchers record notes during the process of research, reflect on their own personal experiences, and consider how their personal experiences may shape their interpretation of results. Also, qualitative researchers need to limit their discussions about personal experiences so that they do not override the importance of the content or methods in a study.

Another aspect of reflecting on the role of the researcher is to be aware of connections between the researcher and the participants or the research sites that may unduly influence the researcher's interpretations. "Backyard" research (Glesne & Peshkin, 1992) involves studying the researcher's own organization, or friends, or immediate work setting. This often leads to compromises in the researcher's ability to disclose information and raises issues of an imbalance of power between the inquirer and the participants. When researchers collect data at their own workplaces (or when they are in a superior role to participants), the information may be convenient and easy to collect, but it may not be accurate information and it may jeopardize the roles of the researchers and the participants. If studying the backyard is essential, then the researcher is responsible for

showing how the data will not be compromised and how such information will not place the participants (or the researchers) at risk. In addition, multiple strategies for validation (see approaches to validation later in this chapter) are necessary to demonstrate the accuracy of the information.

Further, indicate steps taken to obtain permission from the institutional review board (IRB) (see Chapter 4) to protect the rights of human participants. Attach, as an appendix, the approval letter from the IRB and discuss the process involved in securing permissions. Discuss steps taken to gain entry to the setting and to secure permissions to study the participants or situation (Marshall & Rossman, 2016). It is important to gain access to research or archival sites by seeking the approval of **gatekeepers,** individuals at the site who provide access to the site and allow or permit the research to be done. A brief proposal might need to be developed and submitted for review to gatekeepers. Bogdan and Biklen (1992) advanced topics that could be addressed in such a proposal:

- Why was the site chosen for study?
- What activities will occur at the site during the research study?
- Will the study be disruptive?
- How will the results be reported?
- What will the gatekeeper gain from the study?

Comment about sensitive ethical issues that may arise (see Chapter 4). For each issue raised, discuss how the research study will address it. For example, when studying a sensitive topic, it is necessary to mask names of people, places, and activities. In this situation, the process for masking information requires discussion in the proposal.

Data Collection Procedures

Comments about the role of the researcher set the stage for discussion of issues involved in collecting data. The data collection steps include setting the boundaries for the study through sampling and recruitment; collecting information through unstructured or semi-structured observations and interviews, documents, and visual materials; as well as establishing the protocol for recording information.

- Identify the purposefully selected sites or individuals for the proposed study. The idea behind qualitative research is to **purposefully select** participants or sites (or documents or visual material) that will best help the researcher understand the problem and the research question. This does not necessarily suggest random sampling or selection of a large number of participants and sites, as is typically found in quantitative research. A discussion of participants and the site might include four aspects identified by Miles and Huberman (1994): (a) the setting (i.e., where the research will take place), (b) the actors (i.e., who will be observed or interviewed), (c) the events (i.e., what the actors will be observed or interviewed doing), and (d) the process (i.e., the evolving nature of events undertaken by the actors within the setting).

- Discuss the strategies being used to recruit individual (or cases) to the study. This is a challenging aspect of research. Indicate ways of informing appropriate participants about the study, and cite the actual recruitment messages sent to them. Discuss ways to provide incentives for individuals to participate, and reflect on approaches that will be used if one method of recruitment is not successful.

- Comment on the number of participants and sites involved in the research. Aside from the small number that characterizes qualitative research, how many sites and participants should you have? First of all, there is no specific answer to this question; the literature contains a variety of perspectives (e.g., see Creswell & Poth, 2018). Sample size depends on the qualitative design being used (e.g., ethnography, case study). From a review of many qualitative research studies, we have some rough estimates to advance. Narrative includes one or two individuals; phenomenology involves a range of 3–10; grounded theory, 20–30; ethnography examines one single culture-sharing group with numerous artifacts, interviews, and observations; and case studies include about four to five cases. This is certainly one approach to the sample size issue. Another approach is equally viable. The idea of **saturation** comes from grounded theory. Charmaz (2006) said that one stops collecting data when the categories (or themes) are saturated: when gathering fresh data no longer sparks new insights or reveals new properties. This is when you have an adequate sample.

- Indicate the type or types of data to be collected. In many qualitative studies, inquirers collect multiple forms of data and spend a considerable time in the natural setting gathering information. The collection procedures in qualitative research involve four basic types and their strengths and limitations, as shown in [Table 9.2](#).
    - A **qualitative observation** is when the researcher takes field notes on the behavior and activities of individuals at the research site. In these field notes, the researcher records, in an unstructured or semi-structured way (using some prior questions that the inquirer wants to know), activities at the

research site. Qualitative observers may also engage in roles varying from a nonparticipant to a complete participant. Typically these observations are open-ended in that the researchers ask general questions of the participants allowing the participants to freely provide their views.

- In **qualitative interviews,** the researcher conducts face-to-face interviews with participants, telephone interviews, or engages in focus group interviews with six to eight interviewees in each group. These interviews involve unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants.

- During the process of research, the investigator may collect **qualitative documents**. These may be public documents (e.g., newspapers, minutes of meetings, official reports) or private documents (e.g., personal journals and diaries, letters, e-mails).

- A final category of qualitative data consists of **qualitative audiovisual and digital materials** (including social media materials). This data may take the form of photographs, art objects, videotapes, website main pages, e-mails, text messages, social media text, or any forms of sound. Include creative data collection procedures that fall under the category of visual ethnography (Pink, 2001) and which might include living stories, metaphorical visual narratives, and digital archives (Clandinin, 2007).

- In a discussion about data collection forms, be specific about the types and include arguments concerning the strengths and weaknesses of each type, as discussed in . Typically, in good qualitative research the researchers draw on multiple sources of qualitative data to make interpretations about a research problem.

- Include data collection types that go beyond typical observations and interviews. These unusual forms create reader interest in a proposal and can capture useful information that observations and interviews may miss. For example, examine the compendium of types of data in that can be used, to stretch the imagination about possibilities, such as gathering sounds or tastes, or using cherished items to elicit comments during an interview. Such stretching will be viewed positively by graduate committee members and by editors of journals.

Table 9.2 Qualitative Data Collection Types, Options, Advantages, and Limitations

Data Collection Types	Options Within Types	Advantages of the Type	Limitations of the Type
Observations	• Complete participant—researcher conceals role • Observer as participant—role of researcher is known • Participant as observer— observation role secondary to participant role • Complete observer—researcher observes without participating	• Researcher has a firsthand experience with participant. • Researcher can record information as it occurs. • Unusual aspects can be noticed during observation. • Useful in exploring topics that may be uncomfortable for participants to discuss.	• Researcher may be seen as intrusive. • Private information may be observed that researcher cannot report. • Researcher may not have good attending and observing skills. • Certain participants (e.g., children) may present special problems in gaining rapport.
Interviews	• Face-to-face—one-on-one, in-person interview • Telephone—researcher interviews by phone • Focus group—researcher interviews participants in a group • E-mail Internet interview	• Useful when participants cannot be directly observed. • Participants can provide historical information. • Allows researcher control over the line of questioning.	• Provides indirect information filtered through the views of interviewees. • Provides information in a designated place rather than the natural field setting. • Researcher's presence may bias responses. • Not all people are equally articulate and perceptive.
Documents	• Public documents—minutes of meetings or newspapers • Private documents—journals, diaries, or letters	• Enables a researcher to obtain the language and words of participants. • Can be accessed at a time convenient to researcher—an unobtrusive source of information. • Represents data to which participants have given attention. • As written evidence, it saves a researcher the time and expense of transcribing.	• Not all people are equally articulate and perceptive. • May be protected information unavailable to public or private access. • Requires the researcher to search out the information in hard-to-find places. • Requires transcribing or optically scanning for computer entry. • Materials may be incomplete. • The documents may not be authentic or accurate.
Audiovisual digital materials	• Photographs • Videotapes • Art objects • Computer messages • Sounds • Film	• May be an unobtrusive method of collecting data. • Provides an opportunity for participants to directly share their reality. • It is creative in that it captures attention visually.	• May be difficult to interpret. • May not be accessible publicly or privately. • The presence of an observer (e.g., photographer) may be disruptive and affect responses.

Note: This table includes material adapted from Bogdan & Biklen (1992), Creswell & Poth (2018), and Merriam (1998).

Table 9.3 A List of Qualitative Data Collection Sources

Observations

- Conduct an observation as a participant or an observer.
- Conduct an observation shifting position from participant to observer (and vice versa).

Interviews

- Conduct one-on-one interviews in the same room, or virtually via web-based or e-mail platforms.
- Conduct a focus group interview in the same room, or virtually via web-based or e-mail platforms.

Documents

- Keep a research journal during the study, or have a participant keep a journal or diary.
- Examine personal documents (e.g., letters, e-mails, private blogs).
- Analyze organizational documents (e.g., reports, strategic plans, charts, medical records).
- Analyze public documents (e.g., official memos, blogs, records, archival information).
- Examine autobiographies and biographies.

Audiovisual and Digital Materials

- Have participants take photographs or record videos (i.e., photo elicitation).
- Use video or film in a social situation or of an individual.
- Examine photographs or videos.
- Examine websites, tweets, Facebook messages.
- Collect sounds (e.g., musical sounds, a child's laughter, car horns honking).
- Gather phone or computer-based messages.
- Examine possessions or ritual objects.

Data Recording Procedures

Before entering the field, qualitative researchers plan their approach to data recording. The qualitative proposal or project should identify the procedures the researcher will use for recording data.

- *Observation protocol.* Plan to develop and use a protocol for recording observations in a qualitative study. Researchers often engage in multiple observations during the course of a qualitative study and use an **observational protocol** for recording information while observing. This may be a single page with a dividing line down the middle to separate descriptive notes (portraits of the participants, a reconstruction of dialogue, a description of the physical setting, accounts of particular events, or activities) from reflexive notes (the researcher's personal thoughts, such as "speculation, feelings, problems, ideas, hunches, impressions, and prejudices"; Bogdan & Biklen, 1992, p. 121). Also written on this form might be demographic information about the time, place, and date of the field setting where the observation takes place.
- *Interview protocol.* Plan to develop and use an **interview protocol** for asking questions and recording answers during a qualitative interview. Researchers record information from interviews by making handwritten notes, by audiotaping, or by videotaping. Even if an interview is taped, we recommend that researchers take notes in the event that recording equipment fails. If audiotaping is used, researchers need to plan in advance for the transcription of the tape.

The interview protocol should be about two pages in length. There should be some spaces between the questions for the interviewer to write short notes and quotes in case the audio-recording device does not work. The total number of questions should be somewhere between 5 and 10, although no precise number can be given. It should be prepared in advance of the interview, and used consistently in all of the interviews. It is helpful for the interviewer to memorize the questions so that he or she does not appear to be simply reading the interview protocol. The interview protocol consists of several important components. These are basic information about the interview, an introduction, the interview content questions with probes, and closing instructions (see also Creswell, 2016). See Figure 9.1.

Data Analysis Procedures

A methods discussion in a qualitative proposal or study needs also to specify the steps in analyzing the various forms of qualitative data. In general, the intent is to make sense out of text and image data. It involves segmenting and taking apart the data (like peeling back the layers of an onion) as well as putting it back together. The discussion in your study about qualitative data analysis might begin with several general points about the overall process:

Figure 9.1 Sample Interview Protocol

○ *Basic information about the interview.* This is a section of the interview where the interviewer records basic information about the interview so that the database can be well organized. It should include the time and date of the interview, where the interview took place, and the names of both the interviewer and interviewee. The project length of the interview could also be noted as well as the file name for the digital copy of the audio recording and transcription.

○ *Introduction.* This section of the protocol provides the instructions to the interviewer so that useful information is not overlooked during a potentially anxious period of conducting the interview. The interviewer needs to introduce himself or herself, and to discuss the purpose of the study. This purpose can be written out in advance and simply read by the interviewer. It should also contain a prompt to the interviewer to collect a signed copy of the informed consent form (alternatively, the participant may have sent the form to the interviewer). The interviewer might also talk about the general structure of the interview (e.g., how it will begin, the number of questions, the time that it should take), and ask the interviewee if he or she has any questions before beginning the interview. Finally, before the interview begins, the interviewer may need to define some important terms that will be used in the interview.

○ *Opening question.* An important first step in an interview is to set the interviewee at ease. We typically begin with an ice-breaker type of question. This is a question where we ask participants to talk about themselves in a way that will not alienate them. We might ask them about their job, their role, or even how they spent the day. We do not ask personal questions (e.g., "What is your income?"). People like talking about themselves, and this opening question should be framed to accomplish this goal.

○ *Content questions.* These questions are the research sub-questions in the study, phrased in a way that seems friendly to the interviewee. They essentially parse the central phenomenon into its parts—asking about different facets of the central phenomenon. Whether the final question would be a restatement of the central question is open to debate. It is hoped that after the interviewee has answered all of the sub-questions, the qualitative researcher will have a good understanding as to how the central question has been answered.

○ *Using probes.* These content questions also need to include probes. Probes are reminders to the researcher of two types: to ask for more information, or to ask for an explanation of ideas. The specific wording might be as follows (and these words could be inserted into the interview protocol as a reminder to the interviewer):

  • "Tell me more" (asking for more information)
  • "I need more detail" (asking for more information)
  • "Could you explain your response more?" (asking for an explanation)
  • "What does 'not much' mean?" (asking for an explanation)

Sometimes beginning qualitative researchers are uncomfortable with a small number of questions and they feel that their interview may be quite short with only a few (5–10) questions. True, some people may have little to say (or little information to provide about the central phenomenon), but by including probes in the interview, the researcher can expand the duration of the interview as well as net useful information. A useful final question might be, "Who should I contact next to learn more?" or "Is there any further information that you would like to share that we have not covered?" These follow-up questions essentially net closure on the interview and show the researcher's desire to learn more about the topic of the interview.

○ *Closing instructions.* It is important to thank the interviewee for his or her time and respond to any final questions. Assure the interviewee of the confidentiality of the interview. Ask if you can follow-up with another interview if one is needed to clarify certain points. One question that may surface is how participants will learn about the results of your project. It is important to think through and provide a response to this question because it involves your time and resources. A convenient way to provide information to interviewees is to offer to send them an abstract of the final study. This brief communication of results is efficient and convenient for most researchers.

- *Simultaneous procedures.* Data analysis in qualitative research will proceed hand-in-hand with other parts of developing the qualitative study, namely, the data collection and the write-up of findings. While interviews are going on, for example, researchers may be analyzing an interview collected earlier, writing memos that may ultimately be included as a narrative in the final report, and organizing the structure of

the final report. This process is unlike quantitative research in which the investigator collects the data, then analyzes the information, and finally writes the report.

- *Winnowing the data.* Because text and image data are so dense and rich, all of the information cannot be used in a qualitative study. Thus, in the analysis of the data, researchers need to "winnow" the data (Guest, MacQueen, & Namey, 2012), a process of focusing in on some of the data and disregarding other parts of it. This process, too, is different from quantitative research in which researchers go to great lengths to preserve all of the data and reconstruct or replace missing data. In qualitative research, the impact of this process is to aggregate data into a small number of themes, something between five and seven themes (Creswell, 2013).

- *Using qualitative computer software programs for assistance.* Also specify whether you will use a qualitative computer data analysis program to assist you in analyzing the data (or whether you will hand code the data). Hand coding is a laborious and time-consuming process, even for data from a few individuals. Thus, qualitative software programs have become quite popular, and they help researchers organize, sort, and search for information in text or image databases (see Guest and colleagues' [2012] chapter on qualitative data analysis software). Several excellent computer software programs are available, and they have similar features: good tutorials and demonstration files, the ability to incorporate both text and image (e.g., photographs) data, the features of storing and organizing data, the search capacity of locating all text associated with specific codes, interrelated codes for making queries of the relationship among codes, and the import and export of qualitative data to *quantitative* programs, such as spreadsheets or data analysis programs. The basic idea behind these programs is that using the computer is an efficient means for storing and locating qualitative data. Although the researcher still needs to go through each line of text (as in hand coding by going through transcriptions) and assign codes, this process may be faster and more efficient than hand coding. Also, in large databases, the researcher can quickly locate all passages (or text segments) coded the same and determine whether participants are responding to a code idea in similar or different ways. Beyond this, the computer program can facilitate relating different codes (e.g., How do males and females—the first code of *gender*—differ in terms of their *attitudes to smoking*—a second code?). These are just a few features of the software programs that make them a logical choice for qualitative data analysis over hand coding. As with any software program, qualitative software programs require time and skill to learn and employ effectively, although books for learning the programs are widely available. Demos are available for six popular qualitative data analysis software programs: MAXqda (www.maxqda.com/), Atlas.ti (www.atlasti.com), Provalis and QDA Miner (https://provalisresearch.com/), Dedoose (www.dedoose.com/), and QSR NVivo (www.qsrinternational.com/). These programs are available for both the PC and MAC platforms.

- *Overview of the data analysis process* (see Figure 9.2). As a **research tip**, we urge researchers to look at qualitative data analysis as a process that requires sequential steps to be followed, from the specific to the general, and involving multiple levels of analysis:
  - **Step 1.** *Organize and prepare the data for analysis.* This involves transcribing interviews, optically scanning material, typing up field notes, cataloguing all of the visual material, and sorting and arranging the data into different types depending on the sources of information.
  - **Step 2.** *Read or look at all the data.* This first step provides a general sense of the information and

an opportunity to reflect on its overall meaning. What general ideas are participants saying? What is the tone of the ideas? What is the impression of the overall depth, credibility, and use of the information? Sometimes qualitative researchers write notes in margins of transcripts or observational field notes, or start recording general thoughts about the data at this stage. For visual data, a sketchbook of ideas can begin to take shape.

- ○ **Step 3.** *Start coding all of the data.* **Coding** is the process of organizing the data by bracketing chunks (or text or image segments) and writing a word representing a category in the margins (Rossman & Rallis, 2012). It involves taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a term, often based in the actual language of the participant (called an *in vivo* term).

Figure 9.2 Data Analysis in Qualitative Research
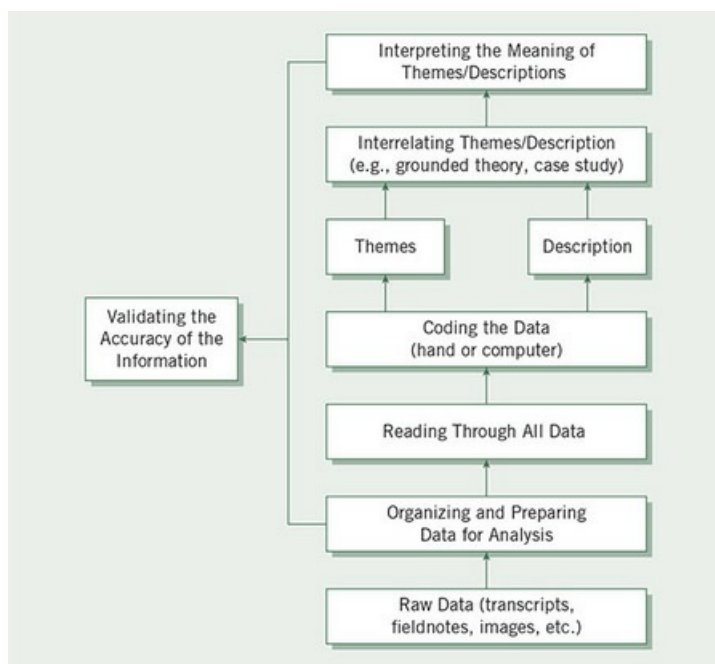
- ○ **Step 4.** *Generate a description and themes.* Use the coding process to generate a description of the setting or people as well as categories or themes for analysis. *Description* involves a detailed rendering of information about people, places, or events in a setting. Researchers can generate codes for this description. This analysis is useful in designing detailed descriptions for case studies, ethnographies, and narrative research projects. Use the coding as well for generating a small number of *themes* or categories—perhaps five to seven themes for a research study. These themes are the ones that appear as major findings in qualitative studies and are often used as headings in the findings sections of studies (or in the findings section of a dissertation or thesis). They should display multiple perspectives from individuals and be supported by diverse quotations and specific evidence. Beyond identifying the themes during the coding process, qualitative researchers can do much with themes to build additional layers of complex analysis. For example, researchers interconnect themes into a story line (as in narratives) or develop them into a theoretical model (as in grounded theory). Themes are analyzed for each individual case and across different cases (as in case studies) or shaped into a general description (as in phenomenology). Sophisticated qualitative

studies go beyond description and theme identification and form complex theme connections.

- Step 5. *Representing the description and themes.* Advance how the description and themes will be *represented* in the qualitative narrative. The most popular approach is to use a narrative passage to convey the findings of the analysis. This might be a discussion that mentions a chronology of events, the detailed discussion of several themes (complete with subthemes, specific illustrations, multiple perspectives from individuals, and quotations) or a discussion with interconnecting themes. Many qualitative researchers also use visuals, figures, or tables as adjuncts to the discussions. They present a process model (as in grounded theory), advance a drawing of the specific research site (as in ethnography), or convey descriptive information about each participant in a table (as in case studies and ethnographies).

- *Specific coding procedures.* As shown in [Table 9.4](#), Tesch (1990) provided the eight steps typically used in forming codes. In addition, give some attention to the types of codes to develop when analyzing a text transcript or a picture (or other type of visual object).

We tend to think about codes as falling into three categories:

- *Expected codes.* Code on topics that readers would expect to find, based on the literature and common sense. When studying bullying in the schools, we might code some segments as "attitudes toward oneself." This code would be expected in a study about bullying in the schools.

- *Surprising codes.* Code on findings that are surprising and could not be anticipated before the study began. In a study of leadership in nonprofit organizations, we might learn about the impact of geo-warming on the building of the organization and how this shapes the location and proximity of individuals to one another. Without going out to the building before the study begins and looking at it, we would not necessarily think about the codes of geo-warming and location of offices in my study of leadership.

- *Codes of unusual or of conceptual interest.* Code unusual ideas, and those that are, in and of themselves, of conceptual interest to readers. We will use one of the codes that we discovered in our qualitative study of a campus's response to a gunman (Asmussen & Creswell, 1995). We did not anticipate the code "retriggering" to emerge in our study, and it surfaced from the perspective of a psychologist called into the campus to assess the response. The fact that individuals were reminded of past traumatic incidents—retriggering—prompted us to use the term as an important code and ultimately a theme in our analysis.

Table 9.4   Tesch's Eight Steps in the Coding Process
1. Get a sense of the whole. Read all the transcriptions carefully. Perhaps jot down some ideas as they come to mind as you read.
2. Pick one document (i.e., one interview)—the most interesting one, the shortest, the one on the top of the pile. Go through it, asking yourself, "What is this about?" Do not think about the substance of the information but its underlying meaning. Write thoughts in the margin.
3. When you have completed this task for several participants, make a list of all topics. Cluster together similar topics. Form these topics into columns, perhaps arrayed as major, unique, and leftover topics.
4. Now take this list and go back to your data. Abbreviate the topics as codes and write the codes next to the appropriate segments of the text. Try this preliminary organizing scheme to see if new categories and codes emerge.
5. Find the most descriptive wording for your topics and turn them into categories. Look for ways of reducing your total list of categories by grouping topics that relate to each other. Perhaps draw lines between your categories to show interrelationships.
6. Make a final decision on the abbreviation for each category and alphabetize these codes.
7. Assemble the data material belonging to each category in one place and perform a preliminary analysis.
8. If necessary, recode your existing data.

○ *On using predetermined codes.* Another issue about coding is whether the researcher should (a) develop codes *only* on the basis of the emerging information collected from participants, (b) use predetermined codes and then fit the data to them, or (c) use some combination of emerging and predetermined codes. The traditional approach in the social sciences is to allow the codes to emerge during the data analysis. In the health sciences, a popular approach is to use predetermined codes based on the theory being examined. In this case, the researchers might develop a **qualitative codebook,** a table that contains a list of predetermined codes that researchers use for coding the data. Guest and colleagues (2012) discussed and illustrated the use of codebooks in qualitative research. The intent of a codebook is to provide definitions for codes and to maximize coherence among codes—especially when multiple coders are involved. This codebook would provide a list of codes, a code label for each code, a brief definition of it, a full definition of it, information about when to use the code and when not to use it, and an example of a quote illustrating the code. This codebook can evolve and change during a study based on close analysis of the data when the researcher is not starting from an emerging code perspective. For researchers who have a distinct theory they want to test in their projects, we would recommend developing a preliminary codebook for coding the data and then permitting the codebook to develop and change based on the information learned during the data analysis.

○ *Coding visual images.* As mentioned earlier, visual data are becoming used more frequently in qualitative research. These data sources represent images drawn from photographs, videos, film, and drawing (Creswell, 2016). Participants might be handed a camera and asked to take pictures of what they see. Alternatively, they may be asked to draw a picture of the phenomenon under study, or reflect on a favorite picture or object that would elicit responses. Challenges in using visual images do arise in qualitative research. Images may reflect trends of the culture or society rather than the perspectives of a single individual. It is difficult to respect anonymity when images of individuals and places represent qualitative data. Permissions are needed to respect the privacy of individuals providing visual data.

Despite these concerns, once the qualitative researcher obtains the visual data, the process of

coding comes into play. These steps often follow this procedure:

- **Step 1.** Prepare your data or analysis. If hand coding, print each image with a wide margin (or affix it to a larger piece of paper) to allow space to assign the code labels. If using a computer, import all images into the application.
- **Step 2.** Code the image by tagging areas of the image and assigning code labels. Some codes might involve meta-details (e.g., the camera angle).
- **Step 3.** Compile all of the codes for the images on a separate sheet.
- **Step 4.** Review the codes to eliminate redundancy and overlap. This step also begins to reduce the codes to potential themes.
- **Step 5.** Group codes into themes that represent a common idea.
- **Step 6.** Assign the codes/themes to three groups: expected codes/themes, surprising codes/themes, and unusual codes/themes. This step helps to ensure the qualitative "findings" will represent diverse perspectives.
- **Step 7.** Array the codes/themes into a conceptual map that shows the flow of ideas in the "findings" section. The flow might represent presenting the themes from a more general picture to a more specific picture.
- **Step 8.** Write the narrative for each theme that will go into the "findings" section of a study or for a general summary that will go into the "discussion" section as the overall findings in the study. (Creswell, 2016, pp. 169–170).

○ *Further data analysis by type of approach.* A helpful conceptualization to advance in the method section is that qualitative data analysis will proceed on two layers: (a) the first basic layer is the more general procedure (see above) in analyzing the data, and (b) the second more advanced layer would be the analysis steps embedded within specific qualitative designs. For example, narrative research employs restorying the participants' stories using structural devices, such as plot, setting, activities, climax, and denouement (Clandinin & Connelly, 2000). Phenomenological research uses the analysis of significant statements, the generation of meaning units, and the development of what Moustakas (1994) called an essence description. Grounded theory has systematic steps (Corbin & Strauss, 2015; Strauss & Corbin, 1990, 1998). These involve generating categories of information (open coding), selecting one of the categories and positioning it within a theoretical model (axial coding), and then explicating a story from the interconnection of these categories (selective coding). Case study and ethnographic research involve a detailed description of the setting or individuals, followed by analysis of the data for themes or issues (see Stake, 1995; Wolcott, 1994). A complete description of the data analysis in a proposal, when the inquirer is using one of these strategies, would be to first describe the general process of analysis followed by the specific steps within the strategy.

Interpretation

Interpretation in qualitative research involves several procedures: summarizing the overall findings, comparing the findings to the literature, discussing a personal view of the findings, and stating limitations and future research. In terms of overall findings, the question "What were the lessons learned?" captures the essence of this idea (Lincoln & Guba, 1985). These lessons could be the researcher's personal interpretation, couched in the understanding that the inquirer brings to the study from a personal culture, history, and experiences.

It could also be a meaning derived from a comparison of the findings with information gleaned from the literature or theories. In this way, authors suggest that the findings confirm past information or diverge from it. It can also suggest new questions that need to be asked—questions raised by the data and analysis that the inquirer had not foreseen earlier in the study. Ethnographers can end a study, Wolcott (1994) said, by stating further questions. The questioning approach is also used in transformative approaches to qualitative research. Moreover, when qualitative researchers use a theoretical lens, they can form interpretations that call for action agendas for reform and change. Researchers might describe how the narrative outcome will be compared with theories and the general literature on the topic. In many qualitative articles, researchers also discuss the literature at the end of the study (see Chapter 2). Thus, interpretation in qualitative research can take many forms; be adapted for different types of designs; and be flexible to convey personal, research-based, and action meanings.

Finally, part of interpretation involves suggesting limitations in a project and advancing future research directions. Limitations often attach to the methods of a study (e.g., inadequate sample size, difficulty in recruitment), and they represent weaknesses in the research that the author acknowledges so that future studies will not suffer from the same problems. Suggestions for future research propose research themes that studies might address to advance the literature, to remedy some of the weaknesses in the present study, or to advance new leads or directions that can point to useful applications or knowledge.

Validity and Reliability

Although validation of findings occurs throughout the steps in the research process, this discussion focuses on how the researcher writes a passage in a proposal or study on the procedures to be undertaken to validate the proposed study's findings. Researchers need to convey the steps they will take in their studies to check for the accuracy and credibility of their findings. Validity does not carry the same connotations in qualitative research that it does in quantitative research; nor is it a companion to reliability (examining stability) or generalizability (the external validity of applying results to new settings, people, or samples), topics discussed in Chapter 8. **Qualitative validity** means that the researcher checks for the accuracy of the findings by employing certain procedures, whereas **qualitative reliability** indicates that the researcher's approach is consistent across different researchers and among different projects (Gibbs, 2007).

- *Defining qualitative validity.* Validity is one of the strengths of qualitative research and is based on determining whether the findings are accurate from the standpoint of the researcher, the participant, or the readers of an account (Creswell & Miller, 2000). Terms abound in the qualitative literature that address validity, such as *trustworthiness, authenticity*, and *credibility* (Creswell & Miller, 2000), and it is a much-discussed topic (Lincoln, Lynham, & Guba, 2011).

- *Using multiple validity procedures.* A procedural perspective that we recommend for research proposals is to identify and discuss one or more strategies available to check the accuracy of the findings. Researchers should actively incorporate **validity strategies** into their proposals. We recommend the use of multiple approaches, which should enhance the researcher's ability to assess the accuracy of findings as well as convince readers of that accuracy. There are eight primary strategies, organized from those used most frequently and easiest to implement to those used occasionally and more difficult to implement:

  - *Triangulate* different data sources by examining evidence from the sources and using it to build a coherent justification for themes. If themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study.

  - Use *member checking* to determine the accuracy of the qualitative findings by taking the final report or specific descriptions or themes back to participants and determining whether these participants feel that they are accurate. This does not mean taking back the raw transcripts to check for accuracy; instead, the researcher takes back parts of the polished or semi-polished product, such as the major findings, the themes, the case analysis, the grounded theory, the cultural description, and so forth. This procedure can involve conducting a follow-up interview with participants in the study and providing an opportunity for them to comment on the findings.

  - Use a *rich, thick description* to convey the findings. This description may transport readers to the setting and give the discussion an element of shared experiences. When qualitative researchers provide detailed descriptions of the setting, for example, or offer many perspectives about a theme, the results become more realistic and richer. This procedure can add to the validity of the findings.

  - Clarify the *bias* the researcher brings to the study. This self-reflection creates an open and honest

narrative that will resonate well with readers. Reflexivity has already been mentioned as a core characteristic of qualitative research. Good qualitative research contains comments by the researchers about how their interpretation of the findings is shaped by their background, such as their gender, culture, history, and socioeconomic origin.

- Present *negative* or *discrepant information* that runs counter to the themes. Because real life is composed of different perspectives that do not always coalesce, discussing contrary information adds to the credibility of an account. A researcher can accomplish this by discussing evidence about a theme. Most evidence will build a case for the theme; researchers can also present information that contradicts the general perspective of the theme. By presenting this contradictory evidence, the account becomes more realistic and more valid.

- Spend *prolonged time* in the field. In this way, the researcher develops an in-depth understanding of the phenomenon under study and can convey detail about the site and the people that lends credibility to the narrative account. The more experience that a researcher has with participants in their settings, the more accurate or valid will be the findings.

- Use *peer debriefing* to enhance the accuracy of the account. This process involves locating a person (a peer debriefer) who reviews and asks questions about the qualitative study so that the account will resonate with people other than the researcher. This strategy—involving an interpretation beyond the researcher and invested in another person—adds validity to an account.

- Use an *external auditor* to review the entire project. As distinct from a peer debriefer, this auditor is not familiar with the researcher or the project and can provide an objective assessment of the project throughout the process of research or at the conclusion of the study. The role is similar to that of a fiscal auditor, and specific questions exist that auditors might ask (Lincoln & Guba, 1985). The procedure of having an independent investigator look over many aspects of the project (e.g., accuracy of transcription, the relationship between the research questions and the data, the level of data analysis from the raw data through interpretation) enhances the overall validity of a qualitative study.

- *Using qualitative reliability*. How do qualitative researchers check to determine if their approaches are reliable (i.e., consistent or stable)? Yin (2009) suggested that qualitative researchers need to document the procedures of their case studies and to document as many of the steps of the procedures as possible. He also recommended setting up a detailed case study protocol and database, so that others can follow the procedures. Gibbs (2007) suggested several qualitative reliability procedures:
  - Check transcripts to make sure that they do not contain obvious mistakes made during transcription.
  - Make sure that there is not a drift in the definition of codes, a shift in the meaning of the codes during the process of coding. This can be accomplished by continually comparing data with the codes and by writing memos about the codes and their definitions (see the discussion on a qualitative codebook).
  - For team research, coordinate the communication among the coders by regular documented meetings and by sharing the analysis.
  - Cross-check codes developed by different researchers by comparing results that are derived

independently. Proposal writers need to include several of these procedures as evidence that they will have consistent results in their proposed study. We recommend that several procedures be mentioned in a proposal and that single researchers find another person who can cross-check their codes for what is called **intercoder agreement** (or cross-checking) (also see Guest et al., 2012; Creswell, 2016). Such an agreement might be based on whether two or more coders agree on codes used for the same passages in the text. It is not that they code the same passage of text; rather they determine whether another coder would code it with the same or a similar code. Reliability subprograms in qualitative computer software packages can then be used to determine the level of consistency of coding. Miles and Huberman (1994) recommended that the consistency of the coding be in agreement at least 80% of the time for good qualitative reliability.

- Qualitative generalization is a term used in a limited way in qualitative research, since the intent of this form of inquiry is not to generalize findings to individuals, sites, or places outside of those under study (see Gibbs, 2007, for his cautionary note about qualitative generalizability). In fact, the value of qualitative research lies in the particular description and themes developed in the context of a specific site. Particularity rather than generalizability (Greene & Caracelli, 1997) is the hallmark of good qualitative research. However, there are a few discussions in the qualitative literature about generalizability, especially as applied to case study research in which the inquirer studies several cases. Yin (2009), for example, felt that qualitative case study results can be generalized to some broader theory. The generalization occurs when qualitative researchers study additional cases and generalize findings to the new cases. It is the same as the replication logic used in experimental research. However, to repeat a case study's findings in a new case setting requires good documentation of qualitative procedures, such as a protocol for documenting the problem in detail and the development of a thorough case study database.

Writing the Qualitative Report

A plan for qualitative methods should end with some comments about the narrative that will emerge from the data analysis. Numerous varieties of narratives exist, and examples from scholarly journals illustrate these models. In a plan for a study, consider advancing several points about the narrative:

- The basic procedure in reporting the results of a qualitative study are to develop descriptions and themes from the data (see Figure 9.1), to present these descriptions and themes that convey multiple perspectives from participants and detailed descriptions of the setting or individuals. Using a qualitative strategy of inquiry, these results may also provide a chronological narrative of an individual's life (narrative research), a detailed description of their experiences (phenomenology), a theory generated from the data (grounded theory), a detailed portrait of a culture-sharing group (ethnography), or an in-depth analysis of one or more cases (case study).
- Given these different strategies, the findings and interpretation sections of a plan for a study might discuss how the sections will be presented: as objective accounts, fieldwork experiences (Van Maanen, 1988), a chronology, a process model, an extended story, an analysis by cases or across cases, or a detailed descriptive portrait.
- At the specific level, there might be some inclusion in the proposal or project about writing strategies that will be used to convey the qualitative research. These might include the following:
  - Quotes: From short to long embedded passages
  - Dialogue that reflects the culture of participants, their language, and a sensitivity to their culture or ethnicity, and the interweaving of words from participants and the author's interpretations
  - Varied narrative forms, such as matrices, comparison tables, and diagrams
  - First person "I" or collective "we" pronouns in the narration
  - Metaphors and analogies (see, for example, Richardson, 1990)
  - Narrative forms associated with specific qualitative strategies (e.g., description in case studies and ethnographies, a detailed story in narrative research)

Example 9.1 is a complete qualitative method section that was included in a proposal by Miller (1992). It contains most of the topics for a good qualitative method section addressed in this chapter.

Example 9.1 Qualitative Procedures

Miller's project was an ethnographic study of first-year experiences of the president of a 4-year college. As we present this discussion, we refer back to the sections addressed in this chapter and highlight them in boldfaced type. Also, we have maintained Miller's use of the term *informant,* although today, the more appropriate term *participant* should be used.

The Qualitative Research Paradigm

The qualitative research paradigm has its roots in cultural anthropology and American sociology (Kirk & Miller, 1986). It has only recently been adopted by educational researchers (Borg & Gall, 1989). The intent of qualitative research is to understand a particular social situation, event, role, group, or interaction (Locke, Spirduso, & Silverman, 1987). It is largely an investigative process where the researcher gradually makes sense of a social phenomenon by contrasting, comparing, replicating, cataloguing and classifying the object of study (Miles & Huberman, 1984). Marshall and Rossman (1989) suggest that this entails immersion in the everyday life of the setting chosen for the study; the researcher enters the informants' world and through ongoing interaction, seeks the informants' perspectives and meanings. *[Qualitative assumptions are mentioned.]*

Scholars contend that qualitative research can be distinguished from quantitative methodology by numerous unique characteristics that are inherent in the design. The following is a synthesis of commonly articulated assumptions regarding characteristics presented by various researchers.

1. Qualitative research occurs in natural settings, where human behavior and events occur.

2. Qualitative research is based on assumptions that are very different from quantitative designs. Theory or hypotheses are not established a priori.

3. The researcher is the primary instrument in data collection rather than some inanimate mechanism (Eisner, 1991; Fraenkel & Wallen, 1990; Lincoln & Guba, 1985; Merriam, 1988).

4. The data that emerge from a qualitative study are descriptive. That is, data are reported in words (primarily the participant's words) or pictures, rather than in numbers (Fraenkel & Wallen, 1990; Locke et al., 1987; Marshall & Rossman, 1989; Merriam, 1988).

5. The focus of qualitative research is on participants' perceptions and experiences, and the way they make sense of their lives (Fraenkel & Wallen, 1990; Locke et al., 1987; Merriam, 1988). The attempt is therefore to understand not one, but multiple realities (Lincoln & Guba, 1985).

6. Qualitative research focuses on the process that is occurring as well as the product or outcome. Researchers are particularly interested in understanding how things occur (Fraenkel & Wallen, 1990; Merriam, 1988).

7. Idiographic interpretation is utilized. In other words, attention is paid to particulars; and data is interpreted in regard to the particulars of a case rather than generalizations.

8. Qualitative research is an emergent design in its negotiated outcomes. Meanings and interpretations are negotiated with human data sources because it is the subjects' realities that the researcher attempts to reconstruct (Lincoln & Guba, 1985; Merriam, 1988).

9. This research tradition relies on the utilization of tacit knowledge (intuitive and felt knowledge) because often the nuances of the multiple realities can be appreciated most in this way (Lincoln & Guba, 1985). Therefore, data are not quantifiable in the traditional sense of the word.

10. Objectivity and truthfulness are critical to both research traditions. However, the criteria for judging a qualitative study differ from quantitative research. First and foremost, the researcher seeks believability, based on coherence, insight and instrumental utility (Eisner, 1991) and trustworthiness (Lincoln & Guba, 1985) through a process of verification rather than through traditional validity and reliability measures. *[Qualitative characteristics are mentioned.]*

The Ethnographic Research Design

This study will utilize the ethnographic research tradition. This design emerged from the field of anthropology, primarily from the contributions of Bronislaw Malinowski, Robert Park and Franz Boas (Jacob, 1987; Kirk & Miller, 1986). The intent of ethnographic research is to obtain a holistic picture of the subject of study with emphasis on portraying the everyday experiences of individuals by observing and interviewing them and relevant others (Fraenkel & Wallen, 1990). The ethnographic study includes in-depth interviewing and continual and ongoing participant observation of a situation (Jacob, 1987) and in attempting to capture the whole picture reveals how people describe and structure their world (Fraenkel & Wallen, 1990). *[The author used the ethnographic approach.]*

The Researcher's Role

Particularly in qualitative research, the role of the researcher as the primary data collection instrument necessitates the identification of personal values, assumptions and biases at the outset of the study. The investigator's contribution to the research setting can be useful and positive rather than detrimental (Locke et al., 1987). My perceptions of higher education and the college presidency have been shaped by my personal experiences. From August 1980 to May 1990 I served as a college administrator on private campuses of 600 to 5,000 students. Most recently (1987–1990), I served as the Dean for Student Life at a small college in the Midwest. As a member of the President's cabinet, I was involved with all top level administrative cabinet activities and decisions and worked closely with the faculty, cabinet officers, president and board of trustees. In addition to reporting to the president, I worked with him through his first year in office. I believe this understanding of the context and role enhances my awareness, knowledge and sensitivity to many of the challenges, decisions and issues encountered as a first year president and will assist me in working with the informant in this study. I bring knowledge of both the structure of higher education and of the role of the college presidency. Particular attention will be paid to the role of the new president in initiating change, relationship building, decision making, and providing leadership and vision.

Due to previous experiences working closely with a new college president, I bring certain biases to this study. Although every effort will be made to ensure objectivity, these biases may shape the way I view and understand the data I collect and the way I interpret my experiences. I commence this study with the perspective that the college presidency is a diverse and often difficult position. Though expectations are immense, I question how much power the president has to initiate change and provide leadership and vision. I view the first year as critical; filled with adjustments, frustrations, unanticipated surprises and challenges. *[Author reflected on her role in the study.]*

Bounding the Study

Setting

This study will be conducted on the campus of a state college in the Midwest. The college is situated in a rural Midwestern community. The institution's 1,700 students nearly triple the town's population of 1,000 when classes are in session. The institution awards associate, bachelor and master's degrees in 51 majors.

Actors

The informant in this study is the new President of a state college in the Midwest. The primary informant in this study is the President. However, I will be observing him in the context of administrative cabinet meetings. The president's cabinet includes three Vice Presidents (Academic Affairs, Administration, Student Affairs) and two Deans (Graduate Studies and Continuing Education).

Events

Using ethnographic research methodology, the focus of this study will be the everyday experiences and events of the new college president, and the perceptions and meaning attached to those experiences as expressed by the informant. This includes the assimilation of surprising events or information, and making sense of critical events and issues that arise.

Processes

Particular attention will be paid to the role of the new president in initiating change, relationship building, decision making, and providing leadership and vision. *[Author mentioned data collection boundaries.]*

Ethical Considerations

Most authors who discuss qualitative research design address the importance of ethical considerations (Locke et al., 1982; Marshall & Rossman, 1989; Merriam, 1988; Spradley, 1980). First and foremost, the researcher has an obligation to respect the rights, needs, values, and desires of the informant(s). To an extent, ethnographic research is always obtrusive. Participant observation invades the life of the informant (Spradley, 1980) and sensitive information is frequently revealed. This is of particular concern in this study where the informant's position and institution are highly visible. The following safeguards will be employed to protect the informant's rights: 1) the research objectives will be articulated verbally and in writing so that they are clearly understood by the informant (including a description of how data will be used), 2) written permission to proceed with the study as articulated will be received from the informant, 3) a research exemption form will be filed with the Institutional Review Board (Appendixes B1 and B2), 4) the informant will be informed of all data collection devices and activities, 5) verbatim transcriptions and written interpretations and reports will be made available to the informant, 6) the informant's rights, interests and wishes will be considered first when choices are made regarding reporting the data, and 7) the final decision regarding informant anonymity will rest with the informant. *[Author addressed ethical issues and IRB review.]*

Data Collection Strategies

Data will be collected from February through May, 1992. This will include a minimum of bi-monthly, 45 minute recorded interviews with the informant (initial interview questions, Appendix C), bimonthly two hour observations of administrative cabinet meetings, bi-monthly two hour observations of daily activities and bi-monthly analysis of the president's calendar and documents (meeting minutes, memos, publications). In addition, the informant has agreed to record impressions of his experiences, thoughts and feelings in a taped diary (guidelines for recorded reflection, Appendix D). Two follow-up interviews will be scheduled for the end of May 1992 (See Appendix E for proposed timeline and activity schedule). *[The author proposed to use face-to-face interviews, participate as observer, and obtain private documents.]*

To assist in the data collection phase I will utilize a field log, providing a detailed account of ways I plan to spend my time when I am on-site, and in the transcription and analysis phase (also comparing this record to how time is actually spent). I intend to record details related to my observations in a field notebook and keep a field diary to chronicle my own thinking, feeling, experiences and perceptions throughout the research process. *[The author recorded descriptive and reflective information.]*

Data Analysis Procedures

Merriam (1988) and Marshall and Rossman (1989) contend that data collection and data analysis must be a simultaneous process in qualitative research. Schatzman and Strauss (1973) claim that qualitative data analysis primarily entails classifying things, persons, and events and the properties which characterize them. Typically throughout the data analysis process ethnographers index or code their data using as many categories as possible (Jacob, 1987). They seek to identify and describe patterns and themes from the perspective of the participant(s), then attempt to understand and explain these patterns and themes (Agar, 1980). During data analysis the data will be organized categorically and chronologically, reviewed repeatedly, and continually coded. A list of major ideas that surface will be chronicled (as suggested by Merriam, 1988). Taped interviews and the participant's taped diary will be transcribed verbatim. Field notes and diary entries will be regularly reviewed. *[Author described steps in data analysis.]*

In addition, the data analysis process will be aided by the use of a qualitative data analysis computer program called HyperQual. Raymond Padilla (Arizona State University) designed HyperQual in 1987 for use with the Macintosh computer. HyperQual utilizes HyperCard software and facilitates the recording and analysis of textual and graphic data. Special stacks are designated to hold and organize data. Using HyperQual the researcher can directly "enter field data, including interview data, observations, researcher's memos, and illustrations . . . (and) tag (or code) all or part of the source data so that chunks of data can be pulled out and then be reassembled in a new and illuminating configuration" (Padilla, 1989, pp. 69–70). Meaningful data chunks can be identified, retrieved, isolated, grouped and regrouped for analysis. Categories or code names can be entered initially or at a later date. Codes can be added, changed or deleted with HyperQual editor and text can be searched for key categories, themes, words or phrases. *[Author mentions the proposed use of computer software for data analysis.]*

Verification

In ensuring internal validity, the following strategies will be employed:

1. Triangulation of data—Data will be collected through multiple sources to include interviews, observations and document analysis;

2. Member checking—The informant will serve as a check throughout the analysis process. An ongoing dialogue regarding my interpretations of the informant's reality and meanings will ensure the truth value of the data;

3. Long terms and repeated observations at the research site—Regular and repeated observations of similar phenomena and settings will occur on-site over a four month period of time;

4. Peer examination—a doctoral student and graduate assistant in the Educational Psychology Department will serve as a peer examiner;

5. Participatory modes of research—The informant will be involved in most phases of this study, from the design of the project to checking interpretations and conclusions; and

6. Clarification of researcher bias—At the outset of this study researcher bias will be articulated in writing in the dissertation proposal under the heading, "The Researcher's Role."

The primary strategy utilized in this project to ensure external validity will be the provision of rich, thick, detailed descriptions so that anyone interested in transferability will have a solid framework for comparison (Merriam, 1988). Three techniques to ensure reliability will be employed in this study. First, the researcher will provide a detailed account of the focus of the study, the researcher's role, the informant's position and basis for selection, and the context from which data will be gathered (LeCompte & Goetz, 1984). Second, triangulation or multiple methods of data collection and analysis will be used, which strengthens reliability as well as internal validity (Merriam, 1988). Finally, data collection and analysis strategies will be reported in detail in order to provide a clear and accurate picture of the methods used in this study. All phases of this project will be subject to scrutiny by an external auditor who is experienced in qualitative research methods. *[Author identified strategies of validity to be used in the study.]*

Reporting the Findings

Lofland (1974) suggests that although data collection and analysis strategies are similar across qualitative methods, the way the findings are reported is diverse. Miles and Huberman (1984) address the importance of creating a data display and suggest that narrative text has been the most frequent form of display for qualitative data. This is a naturalistic study. Therefore, the results will be presented in descriptive, narrative form rather than as a scientific report. Thick description will be the vehicle for communicating a holistic picture of the experiences of a new college president. The final project will be a construction of the informant's experiences and the meanings he attaches to them. This will allow readers to vicariously experience the challenges he encounters and provide a lens through which readers can view the subject's world. *[Outcomes of the study were mentioned.]*

Summary

This chapter explored the components that go into developing and writing a qualitative method section for a proposal. Recognizing the variation that exists in qualitative studies, the chapter advances a general guideline for procedures. This guideline includes a discussion about the general characteristics of qualitative research if audiences are not familiar with this approach to research. These characteristics are that the research takes place in the natural setting, relies on the researcher as the instrument for data collection, employs multiple methods of data collection, is both inductive and deductive, is based on participants' meanings, includes researcher reflexivity, and is holistic. The guideline recommends discussing a research design, such as the study of individuals (narrative, phenomenology); the exploration of processes, activities, and events (case study, grounded theory); or the examination of broad culture-sharing behavior of individuals or groups (ethnography). The choice of design needs to be presented and defended. Further, the proposal or study needs to address the role of the researcher: past experiences, history, culture, and how this potentially shapes interpretations of the data. It also includes a discussion about personal connections to the site, steps to gain entry, and anticipation of sensitive ethical issues. Discussion of data collection should advance the purposeful sampling approach and the forms of data to be collected (i.e., observations, interviews, documents, and audiovisual and digital materials). It is useful to also indicate the types of data recording protocols that will be used.

Data analysis is an ongoing process during research. It involves analyzing participant information, and researchers typically employ general analysis steps as well as those steps found within a specific design. More general steps include organizing and preparing the data; an initial reading through the information; coding the data; developing from the codes a description and thematic analysis; using computer programs; representing the findings in tables, graphs, and figures; and interpreting the findings. These interpretations involve stating lessons learned, comparing the findings with past literature and theory, raising questions, offering personal perspective, stating limitations, and advancing an agenda for reform. The project should also contain a section on the expected outcomes for the study. Finally, an additional important step in planning a proposal is to mention the strategies that will be used to validate the accuracy of the findings and demonstrate the reliability of codes and themes.

Writing Exercises

1. Write a plan for the procedure to be used in your qualitative study. After writing the plan, use Table 9.1 as a checklist to determine the comprehensiveness of your plan.

2. Develop a table that lists, in a column on the left, the steps you plan to take to analyze your data. In a column on the right, indicate the steps as they apply directly to your project, the research strategy you plan to use, and data that you have collected.

Additional Readings

Creswell, J. W. (2016). *The 30 essential skills for the qualitative researcher.* Thousand Oaks, CA: Sage.

This is John Creswell's most applied book. It includes specific steps for conducting many of the most important qualitative inquiry procedures. It discusses the essential nature of qualitative research, specific procedures for conducting an observation and interview, the detailed procedures of data analysis, the uses of computer programs for assisting in qualitative data analysis, validity strategies, and procedures for intercoder agreement checks.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.

The basic premise of this book is that all qualitative research is not the same, and, over time, variations in procedures of conducting qualitative inquiry have evolved. This book discusses five approaches to qualitative research: (a) narrative research, (b) phenomenology, (c) grounded theory, (d) ethnography, and (e) case studies. A process approach is taken throughout the book in which the reader proceeds from broad philosophical assumptions and on through the steps of conducting a qualitative study (e.g., developing research questions, collecting and analyzing data, and so forth). The book also presents comparisons among the five approaches so that the qualitative research can make an informed choice about what strategy is best for a particular study.

Flick, U. (Ed.). (2007). *The Sage qualitative research kit.* Thousand Oaks, CA: Sage.

This is an eight-volume kit—edited by Uwe Flick—that is authored by different world-class qualitative researchers and was created to collectively address the core issues that arise when researchers actually do qualitative research. It addresses how to plan and design a qualitative study, the collection and production of qualitative data, the analysis of data (e.g., visual data, discourse analysis), and the issues of quality. Overall, it presents a recent, up-to-date window into the field of qualitative research.

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis.* Thousand Oaks, CA: Sage.

This book provides a practical and detailed study of themes and data analysis in qualitative research. It contains detailed passages about the development of codes, codebooks, and themes, as well as approaches to enhancing the validity and reliability (including intercoder agreement) in qualitative research. It explores data reduction techniques and a comparison of themes. It presents useful information about qualitative data analysis software tools as well as procedures for integrating quantitative and qualitative data.

Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research* (5th ed.). Thousand Oaks, CA: Sage.

Catherine Marshall and Gretchen Rossman introduce the procedures for designing a qualitative study and a qualitative proposal. The topics covered are comprehensive. They include building a conceptual framework around a study; the logic and assumptions of the overall design and methods; methods of data collection and procedures for managing, recording, and analyzing qualitative data; and the resources needed for a study, such as time, personnel, and funding. This is a comprehensive and insightful text from which both beginners and more experienced qualitative researchers can learn.

https://edge.sagepub.com/creswellrd5e

Students and instructors, please visit the companion website for videos featuring John W. Creswell, full-text SAGE journal articles, quizzes and activities, plus additional tools for research design.