

Qualitative Sampling Plan

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Essential Questions

1. What is the goal of sampling in qualitative research?
2. What are some types of generalizing commonly accepted in qualitative research?
3. What are some conceptual considerations in qualitative sampling?
4. What are prominent purposeful sampling strategies?
5. What are some practical considerations in qualitative sampling?
6. What resources should be utilized to finalize the sampling plan?

Introduction

Data collection requires a sampling plan, and a sampling plan involves obtaining information from part of a population. In contrast, the U.S. census involves obtaining information from all residents in the United States. Researchers, especially those conducting qualitative studies, readily do not have the resources (i.e., time and availability) to obtain information from all potential participants in a population. For this reason, researchers devise plans to obtain or sample some information from part of the population. There are many approaches qualitative researchers take to sample some information from a population of potential participants. Decisions on justified choices depend upon the study goals, available participants, and best practices for conducting such research. Researchers also often obtain guidance and ideas on sampling from colleagues, mentors, and other practitioners. Ultimately the goal is to devise and implement a plan that will help with collecting information for analysis and to answer research questions.

In this chapter, there are several topics explored. The “what and why” of sampling is first introduced. This involves defining sampling and discussing general terminology about populations. This also includes a discussion of generalizability—differentiating generalizability from transferability. Next, there is a discussion of conceptual considerations in sampling. This involves exploring concepts such as units of analysis, inclusion criteria, and determining a sample size. Then there is an overview of sampling types, including random, convenience, and purposeful sampling. Because purposeful sampling is the primary sampling strategy used in qualitative research, several prominent purposeful sampling strategies are introduced. Finally, some practical considerations of sampling are introduced, including site authorization, planning for Institutional Review Board (IRB), attrition strategies, and finalizing the sampling plan.

What and Why of Sampling

A **sample** is a subset of observations or responses from a larger population collected for analysis and for answering research questions. In the human and social sciences, these observations or responses are about or from human subjects and/or materials that document human behavior. Both quantitative and qualitative research involve obtaining samples, but the philosophy and overall strategy for sampling between the two

methodologies differ significantly. Sampling in qualitative research primarily involves contextualized exploration of a population for purpose of transferring the results outside the sample, while sampling in quantitative research primarily involves generalizing based upon probability. Understanding this distinction is fundamental to understanding the nature of qualitative sampling.

The sampling goal in quantitative research is to be able to infer or generalize the results from a sample to a larger population. A **target population** is some subset of the general population and comprises all individuals/units that theoretically share similar characteristics at a particular research site. In quantitative research, for results to be generalizable, the sample must be representative of the population of interest. This means that the sample must represent the diversity of the entire population, which requires that each member of that population has equal chance to be selected (Jackson, 2009). Although qualitative researchers are interested in generalizing their results, because of the contextualized nature of data collection and analysis, the role of sampling and generalizing is much different in qualitative research studies.

The overall goal of qualitative research is to implement techniques to describe and interpret the experiences of people, specifically by focusing on the contextual and subjective aspects of human experience (Castellan, 2010; Ponterotto, 2005). In taking this approach to assigning meaning to subjective experience, the qualitative researcher is inductively researching social phenomena. **Inductive reasoning** involves creating propositions or theories based upon observations. With an inductive underpinning, qualitative studies tend to have an exploratory and emergent nature to their design. Because of the contextualized and hence emergent nature of qualitative research, sampling has a different purpose than in quantitative research.

Transferring, Not Generalizing

Firestone (1993) argued there are three types of generalizing in research, including (a) sample-to-population extrapolation, (b) analytic generalizations, and (c) case-to-case transfer. Sample-to-population extrapolation is the primary method of generalizing in quantitative research (i.e., using probability theory to generalize from the sample to the larger population). Analytic generalization is used in both methodologies, and case-to-case transfer is the primary method of generalizing in qualitative research. Because probability sampling is not used in qualitative research, sample-to-population is not the preferred method. As such, discussion of generalizing in qualitative research rests upon analytic generalization and case-to-case transfer.

Analytic generalization refers to generalizing results from research to support or extend a theory (Firestone, 1993). Analytic generalization is used in both quantitative and qualitative research. For example, correlating a teacher's self-efficacy with performance supports or furthers the theory of self-efficacy. In the same way, interviewing teachers screened for high self-efficacy to explore factors affecting their persistence in teaching adds to or supports the general theory of self-efficacy. In both examples, the results do not definitely prove self-efficacy theory, but rather provide additional evidence to support the predictive value of the theory. While analytic generalization applies to both methodologies, the practice of case-to-case transfer applies more specifically to qualitative research.

Case-to-case transfer refers to the application of research findings from one setting (the sample) to another setting (outside of the sample) (Firestone, 1993). The case or boundary conditions of the phenomenon of inquiry are set by the researcher. For example, if a qualitative study were undertaken to explore the factors affecting enrollment increases in a school district, the results of such a study could be applied to a different school district to either improve or understand success factors in that new context. For the information in one context (the sample) to be useful in another context, the researcher needs to utilize a thick description of the phenomenon of interest.

Qualitative studies involve the generation of thick descriptions and rich data. The term *thick description* has become synonymous with rigorous qualitative data collection. Clifford Geertz (1973), the anthropologist who popularized the term, traced its origin to philosopher Gilbert Ryle. Thick descriptions are accurate portrayals of "the thoughts, emotions, and web of social interaction among observed participants" (Ponterotto, 2006, p. 542). Specifically, **thick description** is the process of holistically documenting (describing) behavior and social

interaction of research participants, which includes providing accurate descriptions of their intentions through a heightened awareness of contextually embedded ideas and interactions. In providing a thick description, the researcher makes vibrant and transparent the lived experience of participants.

The combination of analytic generalization and case-to-case transfer form a broader notion of what has become known as transferability. **Transferability** refers to the degree to which the results of a qualitative study apply to other people or contexts. An expanded definition that incorporates both analytic generalization and case-to-case transfer would highlight that transferability not only indicates the application of results to other settings broadly conceived, but also to policy, practice, and future research (Lietz & Zayas, 2010). In this way, transferability indicates the depth and breadth of both practical and scientific implications of the conclusions drawn from a qualitative study. This expanded treatment of transferability has significant implications for defining the population and interpreting the value of results in qualitative studies.

Conceptual Considerations of Sample

Unit of Analysis

Whereas quantitative research questions focus on the extent to which there is variance between variables or groups (i.e., how many or how much), qualitative research questions focus on some **unit(s) of analysis** within a real-life setting (i.e., what, how, or why). Unit of analysis is the focal unit (i.e., who or what) of interest in the research study (Yin, 2015). Examples include individuals, groups, events, or organizations. An expanded list of types of units might include structure (e.g., processes, programs, or projects), perspectives (e.g., shared experience), and geographic location (e.g., rural communities). Although there can be more than one unit of analysis in a qualitative study, such as in a case study, many qualitative studies involve just one unit of analysis.

Units of analysis provide a framework to remain focused on specific aspects of a phenomenon of interest. The source of rationale for the units of analysis comes from the gap in the scientific literature. For example, suppose the literature indicates a need to explore the relationship between rural community culture and high school graduate outcomes. A researcher could use a case study approach to explore the influence of the culture in a rural community on the aspirations of high school graduates to attend college or pursue careers. Here the unit of analysis is the influence of the rural community, but the sample might include high school graduates, parents of the graduates, and lawmakers in the local government. The triangulation of thick descriptions from the graduates, their parents, and the lawmakers could provide critical insights on the influence of the rural community on the aspirations of the high school graduates. Defining the unit(s) of analysis begins the process of sorting out the conditions for the population and sample.

Population Considerations

In defining the unit(s) of analysis in qualitative research, a researcher begins to establish the basis for the inclusion criteria in a study. **Inclusion criteria** is a set of characteristics or eligibility requirements established by the researcher to define the target population. In contrast, **exclusion criteria** are a set of characteristics that makes individuals ineligible to participate in the study. Just as with the units of analysis, the gap in the scientific literature is used to define the desired population. For example, if the unit of analysis were counselor descriptions of compassion fatigue, and the literature indicated limited information on how experienced counselors managed compassion fatigue in providing outreach services to homeless adults, the inclusion criteria would be (a) counselors, (b) with demonstrated experience (for example, 5 or more years of experience; the exact threshold would need to be justified through practical standards or support from scholarly literature), and (c) who provide outreach services to homeless adults. In establishing this inclusion/exclusion criteria, the researcher then can set out to locate an accessible population that meets these criteria.

In the previous example, counselors with demonstrated experience providing outreach services to homeless adults exist somewhere as a population. These criteria provide the scaffolding to define the population, but the researcher must locate the population in a geographic location, a research site. As previously mentioned, the target population comprises all individuals/units that theoretically share similar characteristics at a particular research site. Suppose a site were identified at a nonprofit organization that provides outreach services to homeless adults. This research site may contain an accessible population that meets the inclusion criteria for the study. To get a sense as to whether the employees at this site meet the inclusion criteria, the researcher could utilize a sampling frame.

Whereas the target population comprises all individuals/units that share similar characteristics at a particular research site, the target population is theoretical in that it does not comprise an actual list of potential participants. The **sampling frame** is an actual list of potential participants that meets the inclusion criteria. Suppose the inclusion criteria comprises certified teachers in a specific school district. The sampling frame would be the actual list of certified teachers compiled by the district office. From that list, researchers obtain a sample with an intended sample size.

Determining the Sample Size

Sample size considerations are much different in qualitative studies. A power analysis is used to determine needed sample size in quantitative research. Such an analysis is based upon probability theory. Without sufficient power (and other criteria) being met, there are limitations on the generalizability of the results in quantitative studies. Because qualitative researchers do not use probability theory to generalize the results, the notion of sample size requires significant reimagining. Saturation is the term that has emerged to address the sample size question in qualitative research.

The origin of saturation in qualitative research is the work of Glaser and Strauss in grounded theory (Guest et al., 2020). The original intent was to use theory-based sampling (iterative or theoretical sampling) to obtain information to create a model or theory about the phenomenon of interest. **Data saturation** would hypothetically occur upon stabilization of the model or theory, at which point no new information would add to the emerging picture, to answer the research question(s). As scholars have pointed out, saturation applies well in grounded theory, as there is iterative sampling (multiple sampling cycles) utilized to create this model or theory (Guest et al., 2020). While saturation has become the primary method to provide support for sample size considerations, in single sample studies, which comprise most qualitative research, the application deserves further discussion.

Again, saturation indicates a point in the collection or analysis at which no new information emerges to answer the research question(s). Without multiple sampling cycles, this would indicate the need for larger samples to reach this hypothetical threshold. Any researcher who has conducted a qualitative study involving multiple interviews, textual transcription, and analysis of dozens, if not hundreds of pages of text, would attest to the amount of work and focus required to conduct such research. As such, having too large of sample both may be unmanageable and ultimately may not add any new information to answer the research question(s). As such, there seems to be a need for a strategy that both is manageable and meets the criterion of credibly answering the research question(s). Before presenting such a strategy, the “average” sample size might be useful to discuss as a baseline.

Many quantitative and mixed method analyses have been performed by scholars seeking to determine a minimum number needed for data saturation (Guest et al., 2020). Statistically, the number 12 has emerged as a viable candidate, meaning 12 interviews. This indicates that hypothetically saturation is likely to occur at or around a sample size of 12. In addition, other studies have been conducted to analyze the average size and range of previously completed qualitative studies, showing a mean size of 31, with strong evidence for a minimum sample of 15 (Mason, 2010). These numbers provide a frame of reference, but they do not provide key factors to consider when thinking about sample size determination.

While numerical values such as 12 interviews provide a starting point, the researcher needs to consider other factors when considering whether a sample size is sufficient to reach saturation. Three broad factors are important to consider when striving for saturation: (a) nature of the study topic; (b) the intended time spent with study participants; and (c) perceived similarity of beliefs, values, and knowledge of intended sample (Boddy, 2016). As for the nature of the study topic, this includes both the topic itself and the desired design. For example, a case study exploring the influence of the culture in a rural community on the aspirations of high school graduates to attend college or pursue careers would not only require triangulation of data sources but also a likely higher sample size to reach saturation because of the complex nature of the topic. Conversely, a qualitative descriptive study exploring teacher descriptions of self-efficacy in teaching remedial mathematics may only require a smaller sample to reach saturation (i.e., no triangulation; individual expression of one psychological phenomenon).

The amount of time spent with participants is a concern as well. The number of interviews or participants has little meaning without knowing the amount and quality of data collected. Typically, interviews and focus groups last between 60 and 90 minutes. While conducting a series of 60-minute interviews would not guarantee data saturation at 12 interviews, completing shorter interviews with no follow-up questions would likely be less helpful in reaching saturation. Ultimately, qualitative researchers seek to obtain rich information to answer their research questions. This can only be accomplished by sustained engagement with participants and/or data sources. Another consideration is the similarity of beliefs, values, and knowledge of intended sample.

If the intended sample has relatively similar beliefs, values, and knowledge about the topic of interest, a smaller sample size might be appropriate. Take the example, again, of exploring teacher descriptions of self-efficacy. Because of the requirement for teacher certification, this population likely has very similar beliefs, values, and knowledge regarding their profession. There may be some variance about their beliefs on self-efficacy. The school district in which they work, the community in which they live, and their religious faith all may affect their beliefs about self-efficacy. However, their shared experience will likely make their beliefs, values, and knowledge more similar than not. As such, reaching a point at which no new information is returned from interviews to answer the research questions would likely occur at a much smaller sample size.

Ultimately, due to the complex and emergent nature of qualitative data collection and analysis, there is not a simple answer to determining sample size in qualitative research. Each college, committee, and chair will have expectations as to what is considered a sufficient sample

size. To justify the intended choice, a few steps should be taken. First, data saturation should be used as the basis. Second, the criteria of study topic; intended time spent with participants; and similarity of beliefs, values, and knowledge of the intended sample should be considered, with the intent of re-evaluating these criteria as data are collected and analyzed. Third, when in doubt whether data saturation has been reached, conduct another interview, focus group, or observation. This is a simple way of determining to what extent new information is still emerging to answer the research question(s).

Sampling Strategies

There are three types of sampling strategies: random, convenience, and purposeful (Schreier, 2018). These sampling strategies are sometimes grouped into two categories: probability sampling (random) and nonprobability sampling (convenience and purposeful). Random sampling is the primary sampling method in quantitative research, as it involves using random selection of participants to generalize the results from the sample to the larger population. Convenience sampling is common in quantitative research. Although less common, convenience sampling is sometimes used in qualitative research.

Convenience sampling involves selecting participants based upon their availability. Steffes (2017) noted that the attraction of convenience sampling depends on practical considerations such as a researcher's distance from the target population, available time, budget limitations, available assistants, and so forth. Assuming

constraints in any of these categories, the researcher could decide to place a premium on accessibility, seeking out participants who are accessible at precisely the time and location most convenient for the researcher. To be clear, accessibility is the only true criterion used for this type of sampling because the researcher does not have the luxury of imposing additional criteria, such as age range, job title, institutional affiliation, familiarity with the topic, and so forth. Researchers who employ convenience sampling often incorporate on-the-spot recruitment with data collection. They conduct walk-up interviews, set up booths with questionnaires, issue surveys through social media, or instigate other forms of activity that combine recruitment with data collection in a single contact, thereby reducing the logistical strain of research. Should the researcher fail to obtain a sufficient sample size on the first try, he or she may reinitiate the activity later without significant harm to the sample integrity.

Purposeful sampling involves the strategic selection of participants and/or sources of data that are information-rich and likely to provide valuable insights into understanding a phenomenon of interest and answering research questions (Patton, 2014). Because the goal in qualitative research is to inductively answer research questions, information-rich sources provide a reliable means to explore the phenomenon of interest. For example, if the topic of interest involved exploring the influence of reflective journaling on the self-efficacy of middle school mathematics students, an information-rich source would be the middle school mathematics students. Similarly, the mathematics teachers may provide critical insights to understand the observed outcomes of students engaged in reflective journaling. In addition, parents might help reveal critical insights not easily observed in class, such as student study habits and other extracurricular behavior.

One important distinction that needs to be discussed is the difference between the terms *purposeful* and *purposive* when referring to qualitative sampling strategies. Patton (2014) introduced the term *purposeful* more than 30 years ago to refer to the strategic selection of information-rich sources in qualitative sampling. Some scholars strictly use the term *purposive* when discussing qualitative sampling strategies (Gobo, 2008; Robinson, 2014). Other scholars use the terms interchangeably, glossing over any difference between the two (Schreier, 2018). Although the distinction between the terms may seem trivial, in understanding the origin and purpose of the terms, the difference may become apparent.

As Patton (2014) explained, the origin of the term *purposive* comes from quantitative research, in which there are two kinds of representative sampling strategies: random and *purposive*. The term *representative* merely means that both random and *purposive* sampling intend to mirror the population in some respect. As such, in quantitative research, the extent to which the sample is not representative of the population demonstrates the sampling bias. An example of *purposive* sampling in quantitative research is quota sampling, in which specific percentages of different groups are included in the sample based upon the needs of the study. For instance, if the purpose were to explore the effects of religious affiliation in Christians on ethical decision-making, the researcher might use quota sampling to obtain 50% Catholics and 50% Protestants. In this way, both random and *purposive* sampling are means to establish the generalizability of research results. Patton intentionally used the term *purposeful* sampling as it (a) indicates sampling of information-rich sources and (b) implies this sampling is done to explore the phenomenon of interest and to answer the research questions, not to obtain a representative sample or to generalize the results. As previously noted, *transferability* best describes the value of what is gained from qualitative inquiry, and *transferability* is much different than *generalizability*. For these reasons, *purposeful* sampling is a more suitable term to describe qualitative sampling strategies.

Purposeful Sampling Strategies

There are many *purposeful* sampling strategies. As several scholars have shown, there are dozens of types of qualitative sampling strategies (possibly more than 40 accepted types) (Johnson & Christensen, 2014; Patton, 2014). For the sake of introduction, the following list is provided as a representation of predominant types, not as an exhaustive list. Although there are other distinctions that could be made, the three broad types of

purposeful sampling strategies listed below include (a) significant or comparison approaches, (b) sequential or emergent approaches (snowball sampling), and (c) theoretical sampling (theory-based sampling). Consider the examples below:

- **Typical case sampling**. Researchers screen prospective participants for their usual or normal positions in relation to a particular phenomenon using the screening based on the researcher's prior knowledge of social patterns pertaining to that phenomenon. For example, a researcher who studies emotional trauma in HIV-positive populations chooses to screen for members of postdiagnosis support groups, who have typically experienced emotional trauma.
- **Intensity case sampling**. Researchers screen prospective participants for their familiarity (or information richness) pertaining to a given phenomenon. For instance, in the scenario above, the researcher might choose to screen for members of HIV postdiagnosis support groups who have received their diagnosis within the past 18 months and are, therefore, fresh in the experience. Such participants offer value for their heightened familiarity with the phenomenon.
- **Extreme case sampling**. Researchers screen prospective participants for their extreme or unusual positions in relation to a particular phenomenon, in which the screening is based on the researcher's prior knowledge of social patterns pertaining to that phenomenon. For example, a researcher who studies emotional intelligence in teaching assistants (TAs) might decide to screen for TAs from high performing/low-income schools that graduate an inordinate number of students compared to their socioeconomic and institutional peer group.
- **Paradigmatic case sampling**. Closely related to extreme case sampling, researchers using this approach screen for participants who exhibit exemplar status, or who link together in a case that exhibits exemplar status (if part of a case study design). For instance, a researcher who studies the learning organization in corporate America selects employees from a well-known *Fortune 500* company, given their familiarity with a high-performing learning organization. The exemplar category, like the extreme category, depends on the researcher's prior knowledge of the peer group.
- **Critical case sampling**. Researchers screen prospective participants for their connection to a socially critical phenomenon or a link via a socially critical case (if part of a case study design). For instance, a researcher who studies preparatory training in high school administrators might screen for assistant principals, given the well-documented public concern over the shortage of skilled replacements for retiring principals. In this scenario, the researcher's sample is partly guided by his/her social needs analysis (in the dissertation proposal), as well as the description of the study's significance.
- **Homogeneous case sampling**. Researchers screen prospective participants for criteria they share in common with one another, and conversely, that distinguish them as a unique subgroup in comparison to the target population as whole. For instance, a researcher who studies psychological resilience in members of adult support groups may screen for individuals who deal with hardship from job-loss, specifically. The sample's shared trait—a striving for resilience from job-loss—distinguishes it from other attendees of adult support groups in the target population.
- **Maximum variation sampling**. Researchers screen prospective participants for criteria that differentiate along a spectrum, such that participants offer a range of lived experiences (and hence perspectives) on a social phenomenon. For instance, a researcher who studies the mental preparation involved in martial arts may screen for individuals from a handful of martial arts genres (e.g., karate, taekwondo, judo), thereby obtaining a range of perspectives of the use of mental techniques in preparing for arts competition.
- **Stratified purposeful sampling**. In stratified purposeful sampling, researchers use stratified sampling to create strata (or classes) in the participant groups. Researchers also screen prospective participants for criteria that create diversity in context, despite pertaining to a single social phenomenon. For instance, a researcher who studies self-efficacy in a professional learning community (PLC) seeks to screen for strata within the PLC, such as teachers, counselors, and administrators, who offer very different

perspectives on self-efficacy in a learning environment. A key feature of this stratified approach is that it produces smaller, homogeneous subsamples (or nested samples) that, nevertheless, exhibit a relationship to the phenomenon and thus belong to the target population (Robinson, 2014).

- **Snowball sampling** This is a multistage sampling approach, which is also called chain sampling. The researcher identifies informants with knowledge of a given social phenomenon but who are not initially targets of the study. The researcher, therefore, poses a series of questions to these informants with the goal of obtaining names of other key informants and then gradually builds a list of who else to interrogate. Patton (2002) expounds that “by asking a number of people who else to talk with, the snowball gets bigger and bigger as you accumulate new information-rich cases.” Eventually, the “chain of recommended informants would ... converge as a few key names get mentioned over and over” (p. 237). The converged-on group effectively becomes the researcher’s sample, having been found information-rich with respect to the phenomenon (Suri, 2011; Patton, 2002). Snowballing is multistage because it first involves screening for key informants and then, over time (after convergence takes place), turns to screening for prospective participants.
- **Theory-Based Sampling.** Many scholars view theory-based sampling as a special case of purposeful sampling because it screens prospective participants for their ability to exemplify a theory (Ritchie et al., 2003). Suri (2011) suggests that researchers view theory as a criterion for selection in a criterion-based screening. Patton (2002) used somewhat different language for roughly the same idea, proposing screening of prospective participants for their ability to “operationalize theoretical constructs” (pp. 238–39). There are some key differences from purposeful sampling, however. Ritchie et al. (2003) clarified that, for theory-based sampling:

the process is iterative: the researcher picks an initial sample, analyses the data, and then selects a further sample in order to refine his or her emerging categories and theories. This process continues until the researcher reaches “data saturation,” or a point when no new insights would be obtained from expanding the sample further. (p. 80)

- Iterative sampling is different from multistage sampling because, rather than whittling down an existing sample to form a smaller sample, it draws entirely new participants from the target population, building fresh samples over and over again. After obtaining each sample in the iterative process, the researcher takes the time to code and analyze the data collected to acquire more insight into the criteria for future sampling. What Ritchie et al. (2003) described is actually the main sampling approach of grounded theory research, a major qualitative design pioneered by sociologists Glaser and Strauss (1967). Coyne (1997) noted that “it is difficult to discuss theoretical sampling without referring to the grounded theory method, as theoretical sampling is a central tenet of that method” (p. 624). Nevertheless, there are scholars who have broken away from the grounded theory tradition and sought to redefine theory-based sampling. Some, such as Palys (2008), Sandelowski (1995), and Morse (1991), have merged theory-based sampling and purposeful sampling under one umbrella, deeming it appropriate to screen for theory as if it were any other criterion. This is to say that Palys, Sandelowski, and Morse do not require the iterative process laid out by Glaser and Strauss (1967) or their grounded theory supporters (Coyne, 1997).

Practical Considerations of Sample

There are several practical considerations in thinking about sampling in qualitative research: (a) thinking about accessibility, (b) exploring site authorization, (c) planning for attrition, (d) planning for IRB, and (e) finalizing the sampling plan. Accessibility refers to determining three components: ease of access, site authority, and participant consent. Ease of access refers to the broad notion of accessibility. Specifically, this refers to determining the challenges inherent in accessing a particular population or data source. Researchers typically make informal inquiries early in the research planning process to determine the feasibility of

accessing a particular research site and/or data source. For example, if the intent is to interview teachers in a school district, asking a friend who is teacher in that district whether similar studies have been conducted there might be a good first step. The next step is to think about obtaining formal site permission.

Site Authorization

The IRB requires researchers to provide written and signed approval to access a particular site. New researchers tend to overlook this step and assume site permission can easily be obtained. This is usually not the case. Collecting data at a site is a burden on both the site and the potential subjects. In the case of interviews and focus groups, the term *burden* just means that typically time and resources are needed to facilitate contact with potential participants and of course conduct the data collection. Even in the case of analyzing archival data, there is a need for an employee of the intended organization to retrieve these data and provide them to the researcher, often in anonymized form. For these reasons, many sites will have some type of criteria they follow to authorize collection of data.

Site permission, sometimes called site approval or site authorization, involves obtaining written and signed approval from the intended site of data collection. IRB often will require a wet signature (or hand signature) on company letterhead. There are four steps researchers should consider in obtaining site authorization: determine the “authority,” determine the criteria utilized to evaluate the site request, review the site authorization form or process, and submit the site authorization request. Determining the authority to whom the site request needs to be directed is the first step. In the case of a school district, likely someone at the district office would be the authority (e.g., superintendent or designee). In the case of a business, likely someone at the executive level or designee would be the authority. In universities, the authority might be a department head, dean, or designee in executive leadership. Ultimately, the researcher is the person who needs to determine this by asking representatives of the organization who to contact for approval. In addition, if the organization has a formal site authorization process, it will likely utilize some criteria to approve such requests.

Not every site will have a clearly defined site authorization process. At many sites, the process is undefined. Whether the site authorization process is clearly defined or not, there is typically some basic criteria that may be utilized to evaluate the site request. Oftentimes these criteria fall into three general categories: logistics, mission alignment, and resources. Logistical just refers to how the request intersects with the normal operation of the organization. For example, suppose the researcher is asking to send an email invitation to conduct interviews with university faculty. The university might determine that this population has been saturated with email requests and might deny the request based upon this criterion. As for mission alignment, suppose the request involves interviewing doctors in a hospital about malpractice lawsuits. For legal and privacy reasons, the hospital might decline approval. The idea of resources as a criterion revisits the notion of burden on the organization. A typical request to conduct interviews on-site might involve an email invitation and the request for space on-site to conduct the interviews. Both are resources the organization may not be willing to commit for such requests. Once the criteria for approval is determined, the researcher needs to complete the formal site authorization request.

There are varying degrees of formality in the site approval process. Some organizations might have a formal application to complete (online or physical). Organizations with less formalized site approval rules, might merely require an email or formal letter mailed to the organization outlining the request. If the organization has a formal process, the researcher should endeavor to accurately complete this process. This may include reading over the application requirements, filling out the application completely, and attaching any requested documents. For example, organizations with a formal approval process often require the researcher to provide copies of all instruments and materials used for data collection. In the case of interviews and focus groups, the researcher should provide a copy of the interview and focus group protocols, which would include the procedures and corresponding questions the researcher will ask of the participants. In the case of a less

formalized process, the researcher should provide a form letter that outlines what the authorizer is approving, including a short overview of the purpose of the study, the data collection methods, and inclusion criteria. The final step in obtaining site authorization is submitting the formal request.

Planning for Attrition

Participant attrition is common to both quantitative and qualitative research. **Attrition** refers to the loss of participants from a research study that occurs during or after selection (Sumner, 2011). In a qualitative research study, attrition may be especially challenging as the data collection process is often prolonged either to prolonged engagement of the researcher with the participants or simply because of the time needed to invite participants and schedule interviews/focus groups. In case or grounded theory studies, the researcher may plan prolonged engagement with the intended participants through multiple interviews with the same participants over time. Similarly, in any qualitative study that involves interviews and focus groups, the researcher may intend to interview subjects and then use a follow up focus group with the same individuals. In both instances, there is potential for attrition. In addition, if attrition reaches a critical point, the researcher may find it difficult to reach data saturation, which could severely limit trustworthiness in answering the research questions. As such, researchers should create a plan to prepare for attrition in qualitative sampling.

The plan for attrition depends on the study goals. Generally, there are three strategies to consider: plan for alternative sites, plan for changes in sampling strategy, and plan for changes in data collection. Qualitative researchers often identify more than one possible site at which to collect data. This can either include sites that adhere to the site approval or those not listed in the initial approval. For example, if the approval was obtained from a school district, and attrition occurred, the researcher could either send out the invitation again to a given school, or if aligned with the site approval criteria, could send out the invitation to other schools in the school district. If the additional school were outside of the site permission criteria, then an updated site permission and corresponding addendum to the IRB application would need to be obtained and submitted to IRB prior to sampling at the new school. Nonetheless, in the research proposal, the researcher could document this strategy for planning for attrition.

Planning for changes in sampling strategy is another approach a researcher could use to prepare for possible attrition. For example, suppose the original strategy was a purposeful typical case sampling approach, and the inclusion criteria were veterans suffering from emotional trauma. Using typical case sampling, the researcher might sample from members in support groups who have experienced such trauma at a local Veteran's of Foreign Wars (VFW) location. If significant attrition occurred, the researcher could employ snowball sampling to try to locate participants who met the inclusion criteria. In this scenario, the researcher could ask each interviewee if he or she personally knows other veterans who have experienced such trauma who might be willing to participate in the study. This would be a minor deviation from the previous sampling plan, but the result may be to obtain enough data from interviews to reach data saturation.

Another approach could be to plan for changes in data collection. For example, suppose the original plan was to interview 10 school social workers to explore their resilience in providing crisis intervention with middle school students. Next, the researcher planned to conduct a focus group with approximately six of those interviewed to further elaborate on resilience strategies shared in the interviews. Suppose that after the 10 interviews, only two social workers were available to participate in the focus group. As scholars have noted, six to 10 participants is the standard size for focus groups and increases the likelihood of reaching data saturation (Hancock et al., 2016; Morgan, 1996). In this scenario, the researcher would need to employ a different approach to collect data. If two methods of collection were not required, or if saturation had been reached in the interviews, the researcher could simply just rely on interviews to answer the questions. Alternatively, the researcher could invite six to 10 new social workers to participate in the focus group. The intent here would be to make minor alterations of the data collection plan to reach data saturation and to credibly answer the research questions.

Planning for IRB

Once the proposal is approved, the dissertation committee directs the researcher to submit an IRB application. The **IRB** provides guidance to researchers on the ethical treatment of human subjects, including providing templates and other resources and final approval for research activity. There are many ethical factors to consider when planning, executing, and finalizing a research study. The starting point is the *Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979), a document that provides crucial guidance on the philosophical starting point for ethical considerations. The *Belmont Report* established three broad ethical principles that arguably underlie all ethical research—respect for persons, beneficence, and justice (Fischer, 2006). To adhere to the Belmont principles, the purpose, problem, and method must be clearly stated, and the inclusion/exclusion criteria must be identified. In addition, several documents need to be submitted for review.

As previously mentioned, the inclusion criteria are a set of characteristics or eligibility requirements established by the researcher to define the target population. If the gap in the literature indicated the need to explore how experienced nurse managers describe managing workplace aggression, the inclusion criteria could be (a) nurse managers, (b) with demonstrated experience (for example, 5 or more years of experience; the exact threshold would need to be justified through practical standards or support from scholarly literature), and (c) who have experience with managing workplace aggression. In combination with the inclusion criteria, exclusion criteria are set out to further make clear who is eligible and who is not eligible to participate in the study. This information allows the IRB to understand precisely who might participate in the study and to review the equitable selection of participants.

The sample plan affects the content to be included in the following documents that must be uploaded in the IRB application: (a) recruitment materials/procedures (e.g., email, letter, flyer, or method); (b) consent forms; (c) interview, focus group, or observation protocols; and (d) site authorization letter. The recruitment materials/procedures include a recruitment email, letter, or flyer, or script for in-person recruitment of participants. The script for the recruitment materials and consent form must include the study scope, inclusion/exclusion criteria, research activities, and data storage plan. The protocols must include the study scope, inclusion/exclusion criteria, research activities, interview/focus group questions (or observation steps), and any debriefing procedures. The site authorization letter must include study scope, inclusion/exclusion criteria, research activities, and signed agreement to authorize the study.

Finalizing the Sampling Plan

As discussed in this chapter, there are many decisions that researchers need to make in constructing a qualitative sampling plan. From accessibility, to permission, and to attrition strategies, a qualitative sampling plan requires much forethought and revisiting as the data collection commences. New researchers must use all available resources to explore and finalize their plan, including exploring the relevant literature and receiving guidance from colleagues, mentors, and other practitioners. Once this input is evaluated and synthesized, the final sampling plan will take shape. New researchers should be patient with this process. As with methodology in general, learning the right path takes time and a significant learning curve.

In doctoral research, there are many mentors who will help with the final decisions of the sampling plan. Starting with the methods faculty, the learning curve will commence. Next comes the engagement with the dissertation committee. From the chair, methodologist, and content expert, the doctoral learner will gain valuable insights on how to become a scholar and the important choices to make about sampling for his or her dissertation. Additionally, peer reviewers will also offer critical insights to enhance the plan. Finally, once IRB has approved the plan, the researcher needs to implement the plan in the field to collect data. As previously mentioned, often adjustments need to be made in the field when the plan fails or when there is a need for additional data to reach data saturation. Ultimately, in being diligent and persistent, the researcher will likely not only grasp the nuances of sampling but also choose pathways that will lead to not only successful data collection but also analysis.

Check for Understanding

1. What is data saturation, and why is it important in qualitative research?
2. What is the difference between generalizing as conceived in quantitative research and transferability?
3. What are units of analysis, and why is it so vital to operationalizing the sampling plan in qualitative research?
4. What are inclusion/exclusion criteria, and why are they important in sampling?
5. What is the difference between purposeful and purposive sampling?
6. What is the role of site authorization in qualitative sampling?

Answers

1. Originally used in grounded theory. Hypothetically, this occurs upon stabilization of the model or theory. This is a point at which no new information emerges from collection or analysis to answer the research question(s). Data saturation determines the viable sample size in most qualitative studies.
2. Transferability refers to the degree to which the results of a qualitative study apply to other people or contexts. An expanded definition that incorporates both analytic generalization and case-to-case transfer would highlight that transferability not only indicates the application of results to other settings broadly conceived, but also to policy, practice, and future research. In contrast, generalizability is the equivalent in quantitative research, but generalizability involves using random sampling and probability to generalize from a sample to a larger population.
3. The focal unit (i.e., who or what) of interest in the research study. Some examples include individuals, groups, events, organizations, structures (e.g., processes, programs, or projects), and perspectives (e.g., shared experience). Although there can be more than one unit of analysis in a qualitative study, such as in a case study, many qualitative studies involve just one unit of analysis. Because variables are not commonly used in qualitative research, identifying the unit(s) of analysis provides a basis to create the inclusion/exclusion criteria and define the target population.
4. Inclusion criteria are a set of characteristics or eligibility requirements established by the researcher to define the target population. Exclusion criteria are a set of characteristics that make individuals ineligible to participate in the study. These criteria help with defining the target population and are included in IRB documents, such as recruitment materials and consent forms.
5. Purposeful sampling involves strategic selection of participants and/or sources of data that are information-rich and likely to provide valuable insights into understanding the phenomenon of interest and answering the research questions. The term purposive comes from quantitative research and refers to representative sampling. Because qualitative sampling does not involve sampling for participants of the larger population (generalizability), purposive sampling does not accurately describe the sampling process in qualitative research.
6. Site permission, sometimes called site approval or site authorization, involves obtaining written and signed approval from the intended site of data collection. Because qualitative sampling often requires several steps to recruit participants, including coordinating a time for interview/focus groups, conducting the interviews/focus groups, and ensuring that the researcher has a viable site to collect data is imperative.

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