

## Qualitative Research Methods: A Data Collector's Field Guide

### Module 1

## Qualitative Research Methods Overview



# Qualitative Research Methods Overview

**T**his module introduces the fundamental elements of a qualitative approach to research, to help you understand and become proficient in the qualitative methods discussed in subsequent modules. We recommend that you consult the suggested readings at the end of the module for more in-depth treatment of the foundations of qualitative research.

This module covers the following topics:

- Introduction to Qualitative Research
- Comparing Qualitative and Quantitative Research
- Sampling in Qualitative Research
- Recruitment in Qualitative Research
- Ethical Guidelines in Qualitative Research
- Suggested Readings

## Introduction to Qualitative Research

### What is qualitative research?

Qualitative research is a type of scientific research. In general terms, scientific research consists of an investigation that:

- seeks answers to a question
- systematically uses a predefined set of procedures to answer the question
- collects evidence
- produces findings that were not determined in advance
- produces findings that are applicable beyond the immediate boundaries of the study

Qualitative research shares these characteristics. Additionally, it seeks to understand a given research problem or topic from the perspectives of the local population it involves. Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviors, and social contexts of particular populations.

### What can we learn from qualitative research?

The strength of qualitative research is its ability to provide complex textual descriptions of how people experience a given research issue. It provides information about the “human” side of an issue – that is, the often contradictory behaviors, beliefs, opinions, emotions, and relationships of individuals. Qualitative methods are also effective in identifying intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion, whose role in the research

issue may not be readily apparent. When used along with quantitative methods, qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data.

Although findings from qualitative data can often be extended to people with characteristics similar to those in the study population, gaining a rich and complex understanding of a specific social context or phenomenon typically takes precedence over eliciting data that can be generalized to other geographical areas or populations. In this sense, qualitative research differs slightly from scientific research in general.

### **What are some qualitative research methods?**

The three most common qualitative methods, explained in detail in their respective modules, are participant observation, in-depth interviews, and focus groups. Each method is particularly suited for obtaining a specific type of data.

- *Participant observation* is appropriate for collecting data on naturally occurring behaviors in their usual contexts.
- *In-depth interviews* are optimal for collecting data on individuals' personal histories, perspectives, and experiences, particularly when sensitive topics are being explored.
- *Focus groups* are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups represented.

### **What forms do qualitative data take?**

The types of data these three methods generate are field notes, audio (and sometimes video) recordings, and transcripts.

## **Comparing Quantitative and Qualitative Research**

### **What are the basic differences between quantitative and qualitative research methods?**

Quantitative and qualitative research methods differ primarily in:

- their analytical objectives
- the types of questions they pose
- the types of data collection instruments they use
- the forms of data they produce
- the degree of flexibility built into study design

Table 1, page 3, briefly outlines these major differences. For a more in-depth theoretical treatment of the differences between qualitative and quantitative research, we refer the reader to the suggested readings listed at the end of this chapter, especially Bernard 1995.

**Table 1. Comparison of quantitative and qualitative research approaches**

	Quantitative	Qualitative
<b>General framework</b>	Seek to confirm hypotheses about phenomena	Seek to explore phenomena
	Instruments use more rigid style of eliciting and categorizing responses to questions	Instruments use more flexible, iterative style of eliciting and categorizing responses to questions
	Use highly structured methods such as questionnaires, surveys, and structured observation	Use semi-structured methods such as in-depth interviews, focus groups, and participant observation
<b>Analytical objectives</b>	To quantify variation	To describe variation
	To predict causal relationships	To describe and explain relationships
	To describe characteristics of a population	To describe individual experiences
		To describe group norms
<b>Question format</b>	Closed-ended	Open-ended
<b>Data format</b>	Numerical (obtained by assigning numerical values to responses)	Textual (obtained from audiotapes, videotapes, and field notes)
<b>Flexibility in study design</b>	Study design is stable from beginning to end	Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions)
	Participant responses do not influence or determine how and which questions researchers ask next	Participant responses affect how and which questions researchers ask next
	Study design is subject to statistical assumptions and conditions	Study design is iterative, that is, data collection and research questions are adjusted according to what is learned

### What is the most important difference between quantitative and qualitative methods?

The key difference between quantitative and qualitative methods is their flexibility. Generally, quantitative methods are fairly inflexible. With quantitative methods such as surveys and questionnaires, for example, researchers ask all participants identical questions in the same order. The response categories from which participants may choose are “closed-ended” or fixed. The advantage of this inflexibility is that it allows for meaningful comparison of responses across participants and study sites. However, it requires a thorough understanding of the important questions to ask, the best way to ask them, and the range of possible responses.

Qualitative methods are typically more flexible – that is, they allow greater spontaneity and adaptation of the interaction between the researcher and the study participant. For example, qualitative methods ask mostly “open-ended” questions that are not necessarily worded in exactly the same way with each participant. With open-ended questions, participants are free to respond in their own words, and these responses tend to be more complex than simply “yes” or “no.”

In addition, with qualitative methods, the relationship between the researcher and the participant is often less formal than in quantitative research. Participants have the opportunity to respond more elaborately and in greater detail than is typically the case with quantitative methods. In turn, researchers have the opportunity to respond immediately to what participants say by tailoring subsequent questions to information the participant has provided.

It is important to note, however, that there is a range of flexibility among methods used in both quantitative and qualitative research and that flexibility is not an indication of how scientifically rigorous a method is. Rather, the degree of flexibility reflects the kind of understanding of the problem that is being pursued using the method.

### **What are the advantages of qualitative methods for exploratory research?**

One advantage of qualitative methods in exploratory research is that use of open-ended questions and probing gives participants the opportunity to respond in their own words, rather than forcing them to choose from fixed responses, as quantitative methods do. Open-ended questions have the ability to evoke responses that are:

- meaningful and culturally salient to the participant
- unanticipated by the researcher
- rich and explanatory in nature

Another advantage of qualitative methods is that they allow the researcher the flexibility to probe initial participant responses – that is, to ask why or how. The researcher must listen carefully to what participants say, engage with them according to their individual personalities and styles, and use “probes” to encourage them to elaborate on their answers. (See the modules on In-Depth Interviews and Focus Groups, pages 42-43 and 64-65 respectively, for discussions of probes.)

### **Is my quantitative experience applicable to qualitative research?**

Although the objectives of quantitative and qualitative research are not mutually exclusive, their approaches to deciphering the world involve distinct research techniques and thus separate skill sets. This guide is intended to train researchers in the skill set required for qualitative research. Experience in quantitative methods is not required, but neither is it a disadvantage. Essential for our purposes, rather, is that all qualitative data collectors have a clear understanding of the differences between qualitative and quantitative research, in order to avoid confusing qualitative and quantitative techniques. Whatever a researcher’s experience in either approach, a general grasp of the premises and objectives motivating each helps develop and improve competence in the qualitative data collection techniques detailed in this guide.

## Sampling in Qualitative Research

Even if it were possible, it is not necessary to collect data from everyone in a community in order to get valid findings. In qualitative research, only a sample (that is, a subset) of a population is selected for any given study. The study's research objectives and the characteristics of the study population (such as size and diversity) determine which and how many people to select. In this section, we briefly describe three of the most common sampling methods used in qualitative research: purposive sampling, quota sampling, and snowball sampling. As data collectors, you will not be responsible for selecting the sampling method. The explanations below are meant to help you understand the reasons for using each method.

### What is purposive sampling?

Purposive sampling, one of the most common sampling strategies, groups participants according to preselected criteria relevant to a particular research question (for example, HIV-positive women in Capital City). Sample sizes, which may or may not be fixed prior to data collection, depend on the resources and time available, as well as the study's objectives. Purposive sample sizes are often determined on the basis of theoretical saturation (the point in data collection when new data no longer bring additional insights to the research questions). Purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection.

### What is quota sampling?

Quota sampling, sometimes considered a type of purposive sampling, is also common. In quota sampling, we decide while designing the study how many people with which characteristics to include as participants. Characteristics might include age, place of residence, gender, class, profession, marital status, use of a particular contraceptive method, HIV status, etc. The criteria we choose allow us to focus on people we think would be most likely to experience, know about, or have insights into the research topic. Then we go into the community and – using recruitment strategies appropriate to the location, culture, and study population – find people who fit these criteria, until we meet the prescribed quotas. (See the section in this module on Recruitment in Qualitative Research, page 6.)

### How do purposive and quota sampling differ?

Purposive and quota sampling are similar in that they both seek to identify participants based on selected criteria. However, quota sampling is more specific with respect to sizes and proportions of subsamples, with subgroups chosen to reflect corresponding proportions in the population. If, for example, gender is a variable of interest in how people experience HIV infection, a quota sample would seek an equal balance of HIV-positive men and HIV-positive women in a given city, assuming a 1:1 gender ratio in the population. Studies employ purposive rather than quota sampling when the number of participants is more of a target than a steadfast requirement – that is, an approximate rather than a strict quota.

### What is snowball sampling?

A third type of sampling, snowballing – also known as chain referral sampling – is considered a type of purposive sampling. In this method, participants or informants with whom contact has already been made use their social networks to refer the researcher to other people who could potentially



participate in or contribute to the study. Snowball sampling is often used to find and recruit “hidden populations,” that is, groups not easily accessible to researchers through other sampling strategies.

## Recruitment in Qualitative Research

A recruitment strategy is a project-specific plan for identifying and enrolling people to participate in a research study. The plan should specify criteria for screening potential participants, the number of people to be recruited, the location, and the approach to be used. In this section, we address some of the questions that may come up during the recruitment of participants.



### How are recruitment strategies decided?

Ideally, the local principal investigator and qualitative research team members work together, in close consultation with community leaders and gatekeepers (that is, community members in positions of official or unofficial authority), to develop a plan to identify and recruit potential participants for each site.

Recruitment strategies are determined by the type and number of data collection activities in the study and by the characteristics of the study population. They are typically flexible and can be modified if new topics, research questions, or subpopulations emerge as important to the study, or if initial strategies do not result in the desired number of recruits. The criteria for selection can also be changed if certain data collection activities or

subpopulations of people prove not to be useful in answering the research questions, as discussed in greater detail below.

### What if we disagree with recommendations from local leaders’?

It is important for the research team to be respectful of and responsive to the guidance and advice of local experts and community leaders. Remember that they have had more opportunity to establish rapport with the local community and they will also have to maintain that rapport after the study is complete. Remember also that community members may hold community leaders and local organizations accountable for any misunderstandings or other problems resulting from the behavior of the field staff.

### What should we say to people when we try to recruit them?

Each research team develops guidelines for the introductory comments staff make to potential participants at each site. These guidelines need to be sensitive to the social and cultural contexts from which participants will be recruited. They should also reflect the researchers’ awareness that willingness to participate in an interview or focus group will depend on how well the participants understand what the study is about, what will be expected of them if they participate, and how their privacy will be respected.

In developing recruitment guidelines, it is important to take special care to avoid saying anything that could be interpreted as coercive. The voluntary nature of participation in research studies should always be emphasized.

## Can we recruit people who are legally under the care of a parent or guardian?

Yes, you may recruit minors, but in most cases you must obtain informed consent (discussed in detail in this module's section on Ethical Guidelines in Qualitative Research, page 9) from the parent or guardian, as well as from the potential participant. Exceptions to the parental consent requirement include pregnant adolescents and homeless minors, but you should always consult the guidelines of the relevant ethics review boards before proceeding with recruitment. Moreover, recruitment of minors must be specifically approved by all relevant ethics review boards. Because they are considered a vulnerable population, recruiting minors for research studies is a highly sensitive issue, and extra measures are required to ensure their protection.

## Do we always need to obtain informed consent? If so, oral or written?

The ethics committee that reviews and approves the study protocol determines whether informed consent needs to be obtained for each data collection activity. Typically, formal informed consent is necessary for all qualitative research methods except participant observation, regardless of the sampling method used to identify potential participants and the strategies used to recruit them. Whether this informed consent is oral or written depends on a number of project-specific factors and ultimately upon approval by the ethics committee. During recruitment, obtaining informed consent for qualitative research involves clearly explaining the project to potential study participants. (See the section in this module on Ethical Guidelines in Qualitative Research, page 9, for more on informed consent.)

## What if the recruitment strategy is not working?

After data collection is under way, the local principal investigator and field staff may find that the recruitment strategy is not working as well as anticipated. Because qualitative research is an iterative process, it is permissible to change the recruitment strategy, as long as the proper approvals are obtained.

For example, it may be necessary to develop a new recruitment strategy because following the original plan has resulted in inadequate enrollment or because researchers determine that they need participants who meet a different set of criteria. After meeting to discuss alternatives, the research team should write down reasons why the strategy was not working or needs to be changed and outline how they would like to change it.

Proposed changes in the recruitment strategy must be submitted to the sponsoring organization, and some will require submission of a protocol amendment for approval by the ethics committees that initially approved the research. If new criteria for participation are proposed, for instance, they must be approved by relevant ethics committees before the new phase of recruitment can begin. Similarly, increasing the number of recruits would also require ethics committee approval.

Because of the limited time frame for data collection, it is important that the field staff work closely with the site principal investigator and community gatekeepers to identify and recruit the new set of research participants.



## Ethical Guidelines in Qualitative Research

This section briefly summarizes ethical issues relevant to qualitative research. It is intended to provide a context for discussion in subsequent modules of procedures for safeguarding research participants' interests. Qualitative researchers, like anyone conducting research with people, should undergo formal research ethics training. The material presented here is not a substitute for training on research ethics. A list of ethics training resources is included on page 12.

*Research ethics* deals primarily with the interaction between researchers and the people they study. *Professional ethics* deals with additional issues such as collaborative relationships among researchers, mentoring relationships, intellectual property, fabrication of data, and plagiarism, among others. While we do not explicitly discuss professional ethics here, they are obviously as important for qualitative research as for any other endeavor. Most professional organizations, such as the American Anthropological Association, the Society for Applied Anthropology, the American Sociological Association, and the American Public Health Association, have developed broad statements of professional ethics that are easily accessible via the Internet.

### Why is research ethics important in qualitative research?

The history and development of international research ethics guidance is strongly reflective of abuses and mistakes made in the course of biomedical research. This has led some qualitative researchers to conclude that their research is unlikely to benefit from such guidance or even that they are not at risk of perpetrating abuses or making mistakes of real consequence for the people they study. Conversely, biomedical and public health researchers who use qualitative approaches without having the benefit of formal training in the social sciences may attempt to rigidly enforce bioethics practices without considering whether they are appropriate for qualitative research.

Between these two extremes lies a balanced approach founded on established principles for ethical research that are appropriately interpreted for and applied to the qualitative research context. Agreed-upon standards for research ethics help ensure that as researchers we explicitly consider the needs and concerns of the people we study, that appropriate oversight for the conduct of research takes place, and that a basis for trust is established between researchers and study participants.

Whenever we conduct research on people, the well-being of research participants must be our top priority. The research question is always of secondary importance. This means that if a choice must be made between doing harm to a participant and doing harm to the research, it is the research that is sacrificed. Fortunately, choices of that magnitude rarely need to be made in qualitative research! But the principle must not be dismissed as irrelevant, or we can find ourselves making decisions that eventually bring us to the point where our work threatens to disrupt the lives of the people we are researching.

## What are the fundamental research ethics principles?

Three core principles, originally articulated in The Belmont Report,<sup>1</sup> form the universally accepted basis for research ethics.

*Respect for persons* requires a commitment to ensuring the autonomy of research participants, and, where autonomy may be diminished, to protect people from exploitation of their vulnerability. The dignity of all research participants must be respected. Adherence to this principle ensures that people will not be used simply as a means to achieve research objectives.

*Beneficence* requires a commitment to minimizing the risks associated with research, including psychological and social risks, and maximizing the benefits that accrue to research participants. Researchers must articulate specific ways this will be achieved.

*Justice* requires a commitment to ensuring a fair distribution of the risks and benefits resulting from research. Those who take on the burdens of research participation should share in the benefits of the knowledge gained. Or, to put it another way, the people who are expected to benefit from the knowledge should be the ones who are asked to participate.

In addition to these established principles, some bioethicists have suggested that a fourth principle, *respect for communities*, should be added. Respect for communities “confers on the researcher an obligation to respect the values and interests of the community in research and, wherever possible, to protect the community from harm.”<sup>2</sup> We believe that this principle is, in fact, fundamental for research when community-wide knowledge, values, and relationships are critical to research success and may in turn be affected by the research process or its outcomes.

## What is informed consent?

Informed consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so they can decide in a conscious, deliberate way whether they want to participate. Informed consent is one of the most important tools for ensuring *respect for persons* during research.

Many people think of informed consent primarily as a *form*, that is, a piece of paper that describes in detail what the research is about, including the risks and benefits. This form generally goes through ethics committee approval procedures, includes legalistic language, and is signed by the participant, the researcher, and possibly a witness. Such informed consent forms are appropriate for biomedical and other research – including qualitative – when the risks faced by participants may be substantial. They may also be necessary for minimal risk research when the foundation for trust between researchers and participants is weak.

<sup>1</sup> National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report. Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Washington, DC: National Institutes of Health, 1979. Available: <http://ohsr.od.nih.gov/guidelines/belmont.html>.

<sup>2</sup> Weijer C, Goldsand G, Emanuel EJ. Protecting communities in research: current guidelines and limits of extrapolation. *Nature Genetics* 1999;23(3):275-80.

But forms are really only one part of an informed consent *process*. In some cases, forms may not be the best way to ensure informed consent. There are also situations where obtaining informed consent from individual participants may not be feasible or necessary. For example, a researcher using participant observation to learn about how transactions occur in a public market would find it very hard to get everyone observed in that setting to sign a consent form and would probably create unwarranted suspicion about her motives in the process of seeking such consent. Yet if people see a stranger hanging around, watching, asking questions, and perhaps taking discreet notes, they may be even more suspicious about why she is there. In these situations, qualitative researchers must use other mechanisms to achieve the goal of informed consent.

### **How do we achieve informed consent for qualitative research?**

In general, informed consent procedures are based on national and international research ethics guidelines; a review of such guidance is an important part of ethics training. Research organizations and ethics committees often have their own specific guidelines as well.

The first task in achieving informed consent is to inform people about the research in a way they can understand. This can be a multistep process. For example, you may begin by approaching community leaders and explaining the research to them. The leaders may then facilitate a community forum where interested people can learn about the research and ask questions. You might distribute information sheets, advertisements, or brochures, or try to get local newspapers or radio stations to do a report on the research. A community advisory board might be set up. Or the researchers might spend a week or two just talking with people one-on-one. If the researchers will be spending a lot of time in the community setting, or if the research is potentially controversial or sensitive, such efforts can go a long way toward gaining trust as well as understanding. In some situations, it may be necessary to obtain formal permission from community leaders or gatekeepers before research can begin.

In general, data collection activities that require more than casual interaction with a person require individual informed consent from that person, regardless of whether community-level permissions exist. Examples of such activities include in-depth interviews and focus groups. The person should be told:

- the purpose of the research
- what is expected of a research participant, including the amount of time likely to be required for participation
- expected risks and benefits, including psychological and social
- the fact that participation is voluntary and that one can withdraw at any time with no negative repercussions
- how confidentiality will be protected
- the name and contact information of the local lead investigator to be contacted for questions or problems related to the research
- the name and contact information of an appropriate person to contact with questions about one's rights as a research participant (usually the chair of the local ethics committee overseeing the research)

All this information must be provided in a language and at an educational level that the participant can understand. Potential participants must be competent to make a decision about being in the research, and free from coercion or undue inducement to participate by researchers or others.

Individual informed consent may be *written* or *oral*.

- *Written consent* means that a person receives a written form that describes the research and then signs that form to document his or her consent to participate. For illiterate participants, the form is read to them, they make some kind of mark in place of a signature, and then a witness usually signs as testimony that the consent is authentic. Written informed consent may also be described as documented informed consent.
- *Oral consent* means that a person receives all of the information needed for consent either verbally or in writing and then verbally consents to participate. The participant does not sign a consent form; therefore, this is often described as waiving the requirement for documentation of informed consent. This does not mean that the requirement for informed consent is waived. Most ethics committees require the researchers to maintain accurate records of how and when consent was obtained for each participant. Oral consent is generally acceptable for research with minimal risk, or where a loss of confidentiality is the primary risk and a signed consent form would be the only piece of identifying information for study participation.



### How do we protect confidentiality?

Because qualitative research is conversational, it is important for data collectors to maintain clear boundaries between what they are told by participants and what they tell to participants. Conversation is a social act that requires give and take. As qualitative researchers we “take” a lot of information from participants and therefore can feel a strong need to “give” similar information in return. People also enjoy talking about what they hear and learn – and researchers are no different. It may be tempting to pass along seemingly inconsequential information from one participant to another – for example, a funny statement or some news that appears to be common knowledge. Don’t do it! People can become upset and untrusting about even seemingly trivial comments being shared, especially if they have divulged very personal information and grow concerned that you will divulge more.

Strategies for protecting confidentiality are described throughout in each of the method modules. But some situations will require unique strategies. The ways in which confidentiality might be breached should be carefully considered before data collection begins and explicit strategies be put in place for protection.

### How do I get research ethics training and certification?

We strongly recommend that all staff associated with qualitative research undergo ethics training and obtain ethics certification before field work and data collection begin. In addition to data collectors, this includes anyone who will have direct contact with participants – such as drivers and

receptionists – or with the data – such as typists, transcribers, translators, and data managers. Research ethics training courses are available on-line from a number of organizations, including Family Health International (<http://www.fhi.org/training/en/RETC>), the U.S. National Institutes of Health (<http://cme.nci.nih.gov>), and the University of California, Los Angeles (<http://training.arc.ucla.edu>). These courses do not focus specifically on qualitative research issues, but they provide a valuable foundation for understanding ethical issues important for all research.

Many ethics courses include mechanisms for obtaining a certificate of completion. A copy of this certificate may be required by the organization sponsoring the research.

## Suggested Readings

Bernard HR. *Research Methods in Anthropology, Second Edition*. London: Sage Publications, 1995.

Denzin NK, Lincoln YS (eds.). *Handbook of Qualitative Research*. London: Sage Publications, 2000.

Marshall PA. Human subjects protections, institutional review boards, and cultural anthropological research. *Anthropol Q* 2003;76(2):269-85.

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Nkwi P, Nyamongo I, Ryan G. *Field Research into Social Issues: Methodological Guidelines*. Washington, DC: UNESCO, 2001.

Pelto P, Pelto G. Studying knowledge, culture and behavior in applied medical anthropology. *Med Anthropol Q* 1997;11(2):147-63.

Pope C, Mays N. *Qualitative Research in Health Care*. London: BMJ Books, 2000.

Schensul, J, LeCompte M. *Ethnographer's Toolkit*. Walnut Creek, CA: Altamira Press, 1999.

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For additional information on this topic, refer to Chapter 1: Invitation to Explore, Chapter 3: Designing the Study, Chapter 4: Collecting Qualitative Data: The Science and the Art, Chapter 5: Logistics in the Field, and Appendix 2: Examples of Oral Consent Forms in these companion guides:

*Qualitative Methods in Public Health: A Field Guide for Applied Research*

*Qualitative Methods: A Field Guide for Applied Research in Sexual and Reproductive Health*