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Research Design

We have a friend who, when asked where she is going on vacation, will tell you the direction she is traveling and then conclude with, "I'll see what happens as I go along." Another friend makes detailed plans, with all the stops (including restaurants) and routes set in advance. "Design" is used in research to refer to the researcher's plan of how to proceed. A qualitative educational researcher is more like the loosely scheduled traveler than the other.

Qualitative researchers proceed as if they know very little about the people and places they will visit. They attempt to loosen themselves from their preconceptions of what they will find—what the people will be like and what will go on in the setting. Similarly, although they may have a general idea of how they will proceed and what they are interested in, to state exactly how to accomplish their work and what specific questions they will pursue would be presumptuous. Plans evolve as they learn about the setting, subjects, and other sources of data through direct examination. A full account of procedures is best described in retrospect, a narrative of what actually happened, written after the study is completed. To repeat, a detailed set of procedures is usually not formed prior to data collection. Qualitative researchers avoid going into a study with hypotheses to test or specific questions to answer. They believe that shaping the questions should be one of the products of data collection rather than assumed a priori. The study itself structures the research, not preconceived ideas or any precise research design. Their work is inductive.

Our advice is to hang loose. This is the hardest recommendation for some people to hear. Beginning researchers are often anxious about doing their first study. Some of this worry is just the feeling you get trying something new, but it is more than just that. "Research" is intimidating and, if you are new at this, you often wonder if you are up to such an important sounding enterprise. One strategy some impose to deal with this anxiety is to try to control the unknown by imposing the structure of one's preconceived ideas. For example, if you were to go into a "typical" class that is alleged to have children labeled "disabled," you might want to frame the study as one of "inclusion" before you stepped through the classroom door—before, that is, you knew what the people you would observe were about. Some people generate a list of questions prior to entering the field to allay their fears. Try to resist this desire to be in control. See what is going on. Hear the people involved with the class talk about what they are doing. Spend time there. Ask very basic

questions such as: "What's going on here?" "How do the people in the study think about what they are doing?" "How does what I see fit with how others talk about it?"

Qualitative researchers have a design; to suggest otherwise would be misleading. How they proceed is based on theoretical assumptions (that meaning and process are crucial in understanding human behavior, that descriptive data are what is important to collect, and that analysis is best done inductively), on data-collection traditions (such as participant observation, unstructured interviewing, and document analysis) and on generally stated substantive questions. In addition, all researchers bring their own specific backgrounds to a study. This often includes training in a particular field, knowledge of substantive topics, a particular standpoint, and theoretical approaches. This shapes what approaches are taken and what issues are focused on. These markers provide the parameters, the tools, and the general guide of how to proceed. It is not that qualitative research design is nonexistent; it is rather that the design is flexible. Qualitative researchers go off to study carrying the mental tools of their trade, with plans formulated as hunches, only to be modified and remolded as they proceed (Janesick, 1994).

Traditional researchers speak of the design of a study as the product of the planning stage of research. The design is then implemented, the data collected and analyzed, and then the writing is done. While qualitative studies have stages, the work is not as segmented. Design decisions are made throughout the study—at the end as well as the beginning. Although the most intensive period of data analysis usually occurs near the end, data analysis is an ongoing part of the research. Decisions about design and analysis may be made together. This chapter on design contains information that will be helpful in understanding fieldwork and analysis; similarly, Chapters 3 and 5 ("Fieldwork" and "Data Analysis and Interpretation") contain useful ideas about design.

This general description of design we have just provided is the common ground that most qualitative researchers stand on, but not all qualitative researchers embrace design as we have described it. Some are more structured (Miles & Huberman, 1994). They may choose a question; decide who to interview, and where and when to observe; and prepare interview schedules prior to doing field work. More experienced researchers, who have done prior research related to their current interests, are likely to have more specific questions in mind. Those doing evaluation and contract policy research often use a more structured approach in that they need to negotiate the scope and nature of their work with those who hired them. So, too, do those doing multiple-case research where there is more than one fieldworker and there is concern of having comparable data across cases. But others are even less structured, drifting through data without ever consciously formulating a plan or a question. The particular tradition they are working from affects where they stand; so do research goals and research experience (see Janesick, 1994; Morse, 1994 for discussions). This is true of all aspects of qualitative research. Wherever you fit on the design continuum, whether closer to the structured end or the more inductive end, the design process involves negotiation between you and the informants over what the study will be. You enter the field with an idea, but you must negotiate its pertinence, worth, and value with the people you will study.

This chapter is about design. Our discussion begins with the factors to consider in choosing a topic to study. We then discuss design as it relates to specific types of "case" and "multiple data source" studies. In pursuing the topic of design as it relates to multiple

data source studies, we present two designs that have been used to generate grounded theory: analytic induction and the constant comparative method.

Choosing a Study

People reading this book are most likely either enrolled in a course where one of the requirements is a research project, or you are about to launch your first major study that will, you hope, become your thesis or dissertation. Many people starting out in qualitative research get bogged down with the questions: "What should I study? Where should I do my field work?" There are no "right" answers to these questions. While decisions are important, they are not right or wrong. If you decide on one school or one class over another, your study may turn out differently, but not necessarily better or worse. The exact decisions you make are not always crucial, but it is crucial that you make some decision. Also, a decision to start a study by going to a particular place does not mean that you are committed to the site forever. Think of your first attempt as an exercise in learning by doing as well as an exploration into the feasibility of doing a study in the location you choose. Your first study should also be thought of as an opportunity to explore a topic area so as to get your bearings if you should undertake a larger endeavor.

Experienced researchers often have a research agenda. They have thought about how they want to spend their research life—what they would like to study and what they hope to accomplish. They look for opportunities to carry out that work. Some are so clear that they refuse research opportunities that do not fit into their overall plan. For the novice researcher, however, the question of what to study is more perplexing. A research agenda is developed from a number of sources. Often a person's own biography will be an influence in defining the thrust of his or her work. Particular topics, settings, or people are of interest because they have touched the researcher's life in some important way. Others get started in an area because a professor or someone else they know is doing related research. Sometimes it is even more idiosyncratic: an opportunity arises; you wake up with an idea; you are out doing what you normally do and you come across some material that strikes your fancy. However a topic comes to you, whatever it is, it should be important to you and excite you. This is particularly true if it is going to be your thesis, dissertation, or other large effort. Self-discipline can only take you so far in research. Without a touch of passion, you may not have enough to sustain the effort to follow the work through to the end or to go beyond doing the ordinary. If someone asks you to undertake a study, be sure it is of sufficient interest to you to maintain your spirit. Of all the thousands of topics and data sources in the world, do not burden yourself with one you are likely to find boring.

While the choices are endless, some advice is in order. First, be practical. Pick a study that seems reasonable in size and complexity so that it can be completed with the time and resources available. Also take into account your own skill, which, at this time, is likely to be untested and underdeveloped. We will have more specific suggestions later about practicality in relation to particular kinds of studies. But the general advice we give to the novice is: "Think small." Qualitative research tends to take a lot of time; it is labor-intensive research. Try to limit the number of hours you clock in and the number of pages of data you review. Try to get a good concentration of information rather than widely scattered pieces.

As you can see from the examples we have given, thinking small means thinking about limitations. It is not the equivalent of making the research project very specific. Questions that are very specific are difficult for the qualitative researcher because the issues posed may not arise in the time available for studying them. An example of a question that is *too specific* would be, "How do residence hall advisors employ strategies of Total Quality Management with first semester college freshman?"

The location of your data sources can be critical. Before starting a project, it may not matter that you have to travel across town to a school or to another city to look at official documents, observe a class, or interview teachers. But, as you get into your work, travel can become burdensome. It drags the work out, limiting your access and therefore your involvement. Without your data source close by, you cannot spontaneously jump in and out of the field.

The second suggestion is that when you are learning the method, study something in which you are not directly involved. If you teach at a school, for example, do not choose that school as a research site. In spite of the fact that successful studies have been accomplished by people who were personally involved in the places they studied (see, for example, McPherson, 1972; Rothstein, 1975), we advise you, the novice, to pick places where you are more or less a stranger. "Why? Don't I have a jump on an outsider studying my own school? I have excellent rapport and I have guaranteed access." This may be true and at times these may be sufficient reasons to ignore our advice, but, especially for a first study, the reasons not to are also compelling. People who are intimately involved in a setting find it difficult to distance themselves both from personal concerns and from their commonsense understandings of what is going on. For them, more often than not, their opinions are more than "definitions of the situation"; they are the truth. Since a major part of your goal is to study what people take for granted, it is important that you not take the same perspectives for granted.

Others in the setting in which you are doing your research, if they know you well, are not used to relating to you as a neutral observer. Rather, they see you as a teacher or as a member of a particular group, as a person who has opinions and interests to represent. They may not feel comfortable relating to you as a researcher to whom they can speak freely. A teacher, for example, studying his or her own school, might not expect the principal to be straightforward in discussing evaluations of fellow teachers or decisions that he or she is making about hiring and firing. Conducting a study with people you know can be confusing and upsetting. Becoming a researcher means more than learning specific skills and procedures. It involves changing your way of thinking about yourself and your relations with others. It involves feeling comfortable with the role of "researcher." If people you know are your research subjects, the transition from your old self to your researcher self becomes indistinct.

Additionally, ethical issues may arise when you study your colleagues, peers, or people over whom you have some kind of authority in a setting. Principals, who have very busy schedules and are also getting higher degrees, may try to save time by studying their own schools. How could you ever be certain that the teachers were not coerced into cooperating with your study? Your authority, in this case, is probably insurmountable as a form of coercion, even if you have good relationships with teachers. A university minister we know, who was interested in student religious cults, felt that he could never study such a group on his own campus because of the ethical implications, and so had to make trips to other campuses for his project.

We are providing advice based on years of experience supervising research projects and teaching qualitative research, but our suggestions are not rigid. You, the novice, might think that you are sufficiently sophisticated or have a relationship with colleagues such that you do not have to worry about these issues. So be it. Give it a try; if it works, great; if it does not, we do not promise not to say, "We told you so."

It is fine to have general interests: gender relations, multiculturalism, inclusion, empowerment, collaborative learning, lifelong learning, but try not to be too abstract to start. Translate theoretical and conceptual interests into concrete behavioral and setting descriptions and use these to locate a place to collect data. Ground your abstract concerns in people, places, and situations. Thus, in pursuing an interest of gender relations you might go to a Little League baseball team that you have heard is composed of both boys and girls. Or perhaps you might study cheerleaders at a local high school (Swaminathan, 1997), or the experiences of young men and women attending their high school proms (Best, 2000). Brainstorm possibilities and then eliminate some on practical or other grounds. Doing this often helps you become clearer about your interests and thus narrow the options. The possibility of studying a Little League team might make you confront the decision of what age group interests you.

Another bit of advice: Have preferences, but do not be single-minded in your choices. In the beginning you never know what you are going to find. While it is fine to have general preliminary plans—such as "I will study teacher/teacher friendships"—do not rigidly adhere to such plans. You may discover that teachers at the school you decide to observe do not form friendships with other teachers, or that the word *friendship* does not capture the complexity of the relations they do have. Treat your initial visits as exploratory opportunities to assess what is feasible. If you have a particular interest you may choose subjects or settings where you think these will be manifest, only to find them not there. Be prepared to modify your expectations and change your design, or you may spend too much time searching for "the right place to study" when it might not exist.

We have discussed choosing a study as if it does not matter what you choose. Qualitative researchers generally share the belief that you can drop a qualitative researcher off anywhere and he or she will come back with important findings. This position contrasts with the novice's fear that only a "great" site will produce worthwhile findings. There may be some truth in the qualitative researcher's optimism, but all sites are not equally easy or interesting to research.

Some topics and settings are difficult to study because those that grant you permission to be there ("gatekeepers") or the subjects themselves are hostile to outsiders. Under those circumstances, it can take months to acquire permission and extensive time to get cooperation. As a novice researcher, you may want to avoid such settings. Deciding what to study always involves assessing who is involved and taking into account the feasibility of access. Who, for example, are the gatekeepers of the files (or of the settings and subjects in which you are interested) and what is the likelihood you can get to them? In Chapter 3, in which we cover researcher relationships, we will discuss "getting in" and negotiating initial relationships with sponsors and subjects. We leave the question of access until then.

In addition to considerations of access, a study's potential significance is something to consider. Some research is relevant to issues that are of crucial importance to education or to society as a whole. Violence is one of those (Casella, 2001). In addition, certain topics and

sites have been studied over and over again, while others are relatively unexplored. While interests are paramount, you may want to take into account the state of the field in which you work and the salient issues of our time in choosing a research problem. Students often underestimate the time it takes to do a major research project (one that results in a product as large as a dissertation). They begin their work at the height of interest in a topic only to find that when they finish it is passé. Those who anticipate trends or spot enduring issues are more likely to accomplish work that generates interest than those who do not.

Suggestions for picking a study:

1. Be practical. Pick something of reasonable size and complexity, that you have easy access to and that is close by.
2. Study something with which you are not directly involved.
3. Be open and flexible.
4. Study something that is interesting to you.
5. Study something that you think might be important.

se Studies

Thus far we have discussed the first problem: choosing a study. One of the suggestions was to be practical in choosing a topic and a data source that are compatible with your resources and skills. It is no accident that most researchers choose for their first project a case study. A **case study** is a detailed examination of one setting, or a single subject, a single depository of documents, or one particular event (Merriam, 1988, Yin, 1989; Stake, 1994). Case studies vary in their complexity; both novices and experienced researchers do them, but characteristically they are easier to accomplish than multisite or multisubject studies (Scott, 1965). Start with a case study. Have a successful first experience and then move on, if you choose, to the more complex.

The general design of a case study is best represented by a funnel. The start of the study is the wide end: The researchers scout for possible places and people that might be the subject or the source of data, find the location they think they want to study, and then cast a wide net trying to judge the feasibility of the site or data source for their purposes. They look for clues on how they might proceed and what might be feasible to do. They begin to collect data, reviewing and exploring them, and making decisions about where to go with the study. They decide how to distribute their time, who to interview, and what to explore in depth. They may throw aside old ideas and plans and develop new ones. They continually modify the design and choose procedures as they learn more about the topic of study. In time, they make specific decisions on what aspect of the setting, subject, or data source they will study. Their work develops a focus. They formulate questions. The data collection and research activities narrow to particular sites, subjects, materials, topics, questions, and themes. From broad exploratory beginnings, they move to more directed data collection and analysis. Bogad (1998) did a case study of a high school discussion group that met off-campus weekly before school started. She began the research looking at

what was important to the young people and ended up focusing her research on how the students both resisted and embraced their cultural capital and economic privilege. This process is more fully discussed in Chapter 5.

There are many different types of qualitative case studies (Werner & Schoepfle, 1987a, 1987b; Ragin & Becker, 1992). Each type has special considerations for determining its feasibility for study as well as the procedures to employ.

Historical Organizational Case Studies

These studies concentrate on a particular organization over time, tracing the organization's development. You might do a study, for example, of an alternative school, tracing how it came into being, what its first year was like, what changes occurred over time, what it is like now (if it is still operating), or how it came to close (if it did). You will rely on data sources such as interviews with people who have been associated with the organization, observations of the present school, and existing documents including various written records and even old photographs. If your intention is to do this type of study, do some preliminary checking on who is available to interview and what documents have been preserved. Many times historical organizational case studies are not possible, simply because the sources are insufficient for a minimally acceptable piece of work. The determination in your initial inventory of people and documents that sufficient material exists provides a starting point as well as the design for your data collection.

Observational Case Studies

In these studies the major data-gathering technique is participant observation (supplemented with formal and informal interviews and review of documents) and the focus of the study is on a particular organization (school, rehabilitation center) or some aspect of the organization. Parts of the organization that become foci in organizational studies typically are the following:

1. A particular place in the organization—a classroom, the teachers' room, the cafeteria, the office of the dean of students
2. A specific group of people—members of the high school basketball team, teachers in a particular academic department, staff of an educational travel organization (Casella, 1997), resident advisors in a dormitory
3. Some activity of the school—curriculum planning or courtship

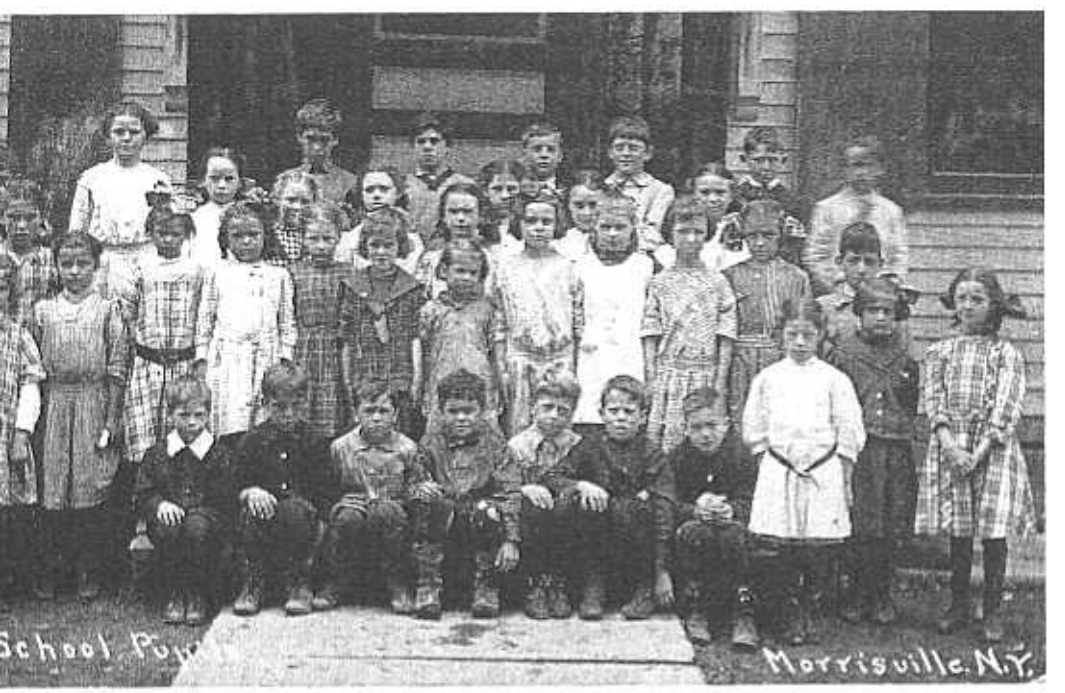
Often studies use a combination of these listed aspects for their focus. In a study of high schools, for example, Cusick (1973) focused on sociability (an activity) among students (a group). While observational case studies often include an historical treatment of the setting, this is supplementary to a concern with the contemporary scene.

The researcher often will choose an organization, such as a school, and then focus on some aspect of it. Picking a focus, be it a place in the school, a particular group, or some other aspect, is always an artificial act, for you break off a piece of the world that is normally integrated. The qualitative researcher tries to take into account the relationship of this piece to the whole, but, out of necessity, narrows the subject matter to make the research

manageable. Detaching a piece to study distorts, but the researcher attempts to choose a piece that is a naturally existing unit. (The part that is chosen is one that the participants themselves see as distinct and the observer recognizes as having a distinct identity of its own.)

The researcher has to examine the organization to see what places, groups, or programs offer feasible concentrations. After visiting a school a few times you should be able to determine the choices. A good physical setting to study is one that the same people use in a recurring way. In public schools, of course, you can count on classrooms, an office, and usually a teachers' lounge, but even here you cannot be certain these are feasible to study. Some schools, for example, do not have a teachers' lounge. In other schools, classrooms may not be the physical units that organize pupils and teachers.

When we talk about "a group" in an organization as the focus of study, we are using the word sociologically to refer to a collection of people who interact, who identify with each other, and who share expectations about each others' behavior. Teenagers often form friendship groups. Faculty members of a particular department at a particular college often are a group. Members of a basketball team usually are also. People who share characteristics such as age, race, sex, or even organizational position may not, however, share "group" membership. Such characteristics may provide the basis of friendship or collegiality, but the people who share such characteristics do not necessarily form a group. People often enter a setting planning an observational study of, for example, "Chicano teachers," only to find out that Chicano teachers in the particular school they have chosen do not spend their time together and apparently do not hold group identity. Before you make a decision to study a group, you have to know the informal structure of the school.



upils, Morrisville, New York, ca. 1912. Photo by H. Myer.

Bloomsburg State Normal School basketball team, Bloomsburg, Pennsylvania, 1915. Photo by Ralph Phillips.

Individuals who share a particular trait but do not form groups can be subjects in a qualitative study, but interviewing is usually a better approach here than participant observation (see, for example, Kiang, 1995). What they share will emerge more clearly when you individually solicit their perspectives rather than observe their activities. Similarly, sharing the same organizational positions does not necessarily mean that people form a group. All science teachers in a high school have something in common, but in certain schools their contact may be so irregular that they do not form a group. In another school, however, the science department might have regular meetings, eat lunch together, and make a good unit to study.

In choosing a setting or group as the focus of an observational case study, keep in mind that the smaller the number of subjects, the more likely you are to change their behavior by your presence. Obviously, hooking up with two students who have a romantic relationship, if such a hook-up were tolerated, would change what went on significantly. A larger number of subjects, on the other hand, usually makes it easier to be unobtrusive. It is keeping track of everyone and managing all the data and relationships present that be-

comes difficult. For your first study, try to pick a setting or a group that is large enough so that you do not stand out, but small enough so that you are not overwhelmed by the task. This simple rule regarding the size of a setting does not always work however. Schools provide some unique and challenging rapport problems that defy the rule. Although there may be twenty-five people in a setting of an elementary school classroom, for example, there is only one adult. Adding the researcher as the second adult may alter the relationships and make it difficult for the observer to be unobtrusive. (For discussions of this concern, see Fine & Glassner, 1979; Smith & Geoffrey, 1968.)

Life History

In this form of case study, the researcher conducts extensive interviews with one person for the purpose of collecting a first-person narrative (Helling, 1988). When this type of interviewing is done by historians it is referred to as **oral history** (Taylor & Bogdan, 1984, esp. Ch. 4). Historians who do this kind of work often interview famous people (presidents, social movement leaders, and generals) to get the details of history from those who participated in it. When they interview less famous people (domestics or farmers, for instance), they are more interested in how history appears from the point of view of the "common person." Sociological or psychological first-person life histories collected through case study interviewing are usually directed at using the person as a vehicle to understand basic aspects of human behavior or existing institutions rather than history. Here, the concept of "career" is often used to organize data collection and presentation. *Career* refers to the various positions, stages, bench marks, and ways of thinking people pass through in the course of their lives (Hughes, 1934). Researchers talk about a person's total career or particular dimensions of it. Goffman, for example, studied the career of the mental patient referring to the person's changing identity as he or she experienced the process of being labeled and then treated as "mentally ill" (Goffman, 1961). Sociological life histories often try to construct subjects' careers by emphasizing the role of organizations, crucial events, and significant others in shaping subjects' evolving definitions of self and their perspectives on life. Feminist approaches to life history tend to emphasize the lived experience of the narrator and how that relates to the intersection of gender, race, and social class (see, for example, Behar, 1990; Chase, 1995; Middleton, 1993).

The feasibility of a **life history** case study is mostly determined by the nature of the potential subject. Is the person articulate and does he or she have a good memory? Has the person lived through the kinds of experiences and participated in the types of organizations or events you want to explore? Does he or she have the time to give? Researchers who do these kinds of case studies usually fall into them. They do not decide on the "type" of subject they want to interview and then go out looking for an example. Rather, they meet a person who strikes them as a good subject and then decide to pursue it. The feasibility and design of such a study is usually determined either on the basis of initial conversations or during the first few interviews. At the onset of a life history study, when the subject and the interviewer do not know each other well, discussion usually covers impersonal matters. Over time, the content becomes more revealing, the researcher probes more closely, and a focus emerges. Life history interviews can involve over one hundred hours of tape-recorded meetings and over a thousand pages of transcripts. While some life history interviews are directed at capturing the subjects' rendering of their whole lives, from birth to present, others are more limited. They seek data on a particular period in the person's life,