Designing Qualitative Research Projects

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Qualitative research methods are often mischaracterized by advocates, users, and critics alike because too often the reflexive, iterative, and flexible methods are misunderstood as 'just making do.' There is a good pragmatic tradition of "making do," from Dewey to the present, that describes the necessities as well as virtues of using what situations provide in their immediacy as the grounds of social action. While qualitative research certainly shares some of this pragmatic bricolage, good research, qualitative as well as quantitative, is designed as well as improvised. One of the merits of qualitative research is its particular openness to serendipitous invention; one of its failures, however, has been an unwillingness, or inability, on the part of its practitioners, until recently, to specify how that openness to 'what situations make available' can be both systematic and creative.

Over the years I have probably reviewed hundreds of research proposals; too large a number of these claimed that because the researcher was doing a qualitative study, the kinds of data and forms of collection could not be specified in advance. I was always a bit embarrassed by this, feeling let down by my side. It sometimes seemed as if our teaching of qualitative research was creating a mystical religion, a set of our own unexamined fetishes just at the moment we set about to identify others' taken for granted assumptions and social meanings. In this vein, some years ago I heard a colleague advise a student going out to do field work for the first time "to be like a blank slate," "just tell me everything you see and hear, write it all down." The student was completely baffled and clearly at a loss about what to do, to do first, or second, or how to begin. What would constitute telling me all you see and hear. Importantly, the student had read a lot of sociology, and knew a lot about signs and signifiers, latent as well as manifest patterns in social relations. She knew that competent social actors are not blank slates. She felt incompetent but not entirely blank. She had a project, after all.

It seemed from the proposals I read and the conversations I observed that we, qualitative sociologists, believed that we could not specify what we were going to do (i.e. lay out a design and plan of the research), because that would mean that we would have — by that naming — necessarily circumscribed what we would do. Having supposedly controlled a priori what we would do, we would be unable to do something else along the way, as the situations and insights invited. We would have lost the distinctive virtues of qualitative research. Somehow, in this mysticism about qualitative methods, research designs seemed to be understood as enforceable contracts or sets of machine instructions; any deviation from the design was understood to be either impossible, a failure, or a mistake. Qualitative research was celebrated for its flexibility; the temporal coincidence of collection and analysis and thus prior design was, by definition, a threat to qualitative research.

Of course, I have overstated the issue but we were asked to provide fodder for discussion. And, to some extent, this overstatement puts the issue in a bold form. Why should qualitative research be any less well designed (or specified) than quantitative research? When I think about the steps in different methods, it occurs to me that most of what gets put into a research design, let us say for a survey project, could also be put in the design for an ethnography or a project of in-depth-interviewing and narrative analysis. The major differences lie in the fact that qualitative projects will not rely on statistical analyses and therefore do not need to produce probability samples and standardized collection instruments at

the same temporal pace and placement in the research process. As a consequence of temporal pace and sequencing, qualitative projects will be able to adjust the forms of data, modes and cites of collection in response to the ongoing processes of analysis and interpretation. This is certainly so. I suspect, however, that the resistance to detailed research qualitative research designs derives less, however, from emphasis on these key differences than from an overly idealized or reified view of how other forms of research proceed, whether quantitative sociology or chemistry or biology. That is, all research develops (is in the making and rethinking) throughout the stages of design, collection, and analysis. Almost all research produces much that was unanticipated and therefore had to be responded to with adjustments along the way. The central difference lies in the explicit weight of recognition of and preparation for this process of adjustment in most qualitative projects. Nothing precludes a preliminary design that sets the research-er on a path that is understood as a first approximation of the work process.

I should say before going much further that there are varieties of qualitative research and my remarks will not appropriately characterize all. For the moment, I am referring primarily to ethnographic field-work, participant observation, in-depth open-ended interviewing, and other work involving interpreta-tive qualitative analysis of documents of various sorts. The mode of analysis rather than the type of data more appropriately describes work as qualitative. (The content of documents and interviews can be analyzed quantitatively or qualitatively. Observations can be systematically structure and quantified but much observation is not, nor would be productive.)

The goal of research is to produce results that can be falsifiable and in some way affirmable by ratio-nal processes of actors other than the author. Most important is that the researcher provide an account of how the conclusions were reached, why the reader should believe the claims and how one might go about trying to produce a similar account. What makes science morally, and rationally, compelling is that it is a public enterprise. I am not referring to the funding or organizational supports. Rather, science is distinguished by the claim to produce shared understanding through modes that can be rationally and collectively apprehended. In short, we have an obligation not to "hide the ball." To the extent that we do "hide the ball," we transform our science into rhetorical performance.

Quickly then, research can be and should be designed. I mean nothing more than to specify a plan of action, a plan that is understood at the outset to be revisable as the situation and understandings develop. Research designs include:

- a description of the conceptual topic and aspect of social relations to be studied;
- a review of what is already known about this and the ways in which that knowledge was produced;
- what is not known and needs to be explored;
- identification of the population or setting about which the researcher will draw conclusions or devel-op hypotheses (theories), (e.g. who will be observed, interviewed, differentiated by status? gender? organizational location?);
- justification of the focus on these population(s) and setting(s) as likely to be generative for what needs to be explored further from what is already known;
- what forms of data will be collected (e.g. observations, interviews, documents);
- how the data will be put into a form appropriate for manipulation and analysis (e.g. through notes in computer files, visual images, transcribed tape recordings);
- how these data sets will be analyzed and synthesized (e.g. by conceptual coding, by textual or narra-tive structure); and
- how will the results be reported.

Nothing here precludes flexibility, iteration and adjustment to the situation as it develops. I will conclude with some excerpts from the research design in a recently funded NSF proposal.

FROM: SAFE SCIENCE: GOVERNING GREEN LABORATORIES (SUSAN SILBEY, 2002)

...IV. Research Design and Work Plan

For this project, I will be conducting ethnographic fieldwork in the University to document and analyze the creation of a new EHS system for research laboratories. The fieldwork activities include interviewing, observation, and document collection. It is sometimes supplemented by systematic data collection with standardized instruments for observation and via small surveys. According to Van Maanen, "fieldwork usually means living with and living like those who are studied. In its broadest, most conventional sense, fieldwork demands the full-time involvement of a researcher over a lengthy period of time (typically unspecified) and consists mostly of ongoing interaction with the human targets of study on their home ground" (1988:2). Ethnography is the written product ....

In this project, I will attempt to represent accurately the current and changed practices in the laboratories, the EHS office, and the administration of the University. While representing the daily routines, decision-making processes, and official policy changes, I will also depict these everyday practices in and through the lenses provided by social scientific research on regulation and laboratory science. I will be guided in my observations and interviews by the questions derived from previous research on regulation, organizational cultures, and scientific laboratories as outlined above. Finally, an ethnography that is sensitive to social structures seems the only way such a study could be done. Because my focus is the intersection of three social phenomena—state regulatory bodies and regulations, university organization, and scientific laboratories, my sites include the university structures, changes in those structures in response to the regulatory mandate, the scientific laboratory and changes in response to regulation...

Formal Committee Meetings. In April 2001, I began observing committee meetings, small group meetings, as well discussions among the University's counsel and staff as they completed negotiations of the consent decree and initiated the process of designing a new EHS system. Since September, I have been aided by a research assistant who attends meetings during my class hours or large meetings where it is helpful to have more than one observer. The formal meetings include those of a committee for facilities, a committee for research laboratories and a committee of administrators and faculty overseeing the work of these two working committees. One or both of us attend each meeting, sitting silently at the side of the room, taking notes on the proceedings. I sometimes interview members of the committees individually; we receive copies of all documents and have been included in all mailing lists.

Interviews with key informants. I have also been interviewing senior administrators, key faculty, and members of the committees overseeing health, safety, and environmental policies and practices. The purpose of these interviews is to develop a firsthand understanding of the decision-making process and goals of the Environmental Management Systems (EMS), as well as the history of the negotiations that led to the consent decree.

Laboratory visits. Since September 2001, I have been visiting laboratories and interviewing lab directors, PIs, some safety and chemical hygiene officers within labs and on the EHS staff. I have also been

observing the meetings of facilities managers as they discuss the forthcoming changes in the EHS system and their concerns. From these observations and interviews, I have identified the variation that seems to exist in organizational structure, risk, and past performance.

Work to be done: I will continue these activities: observing committee and small group, as well as large public, meetings, and interviewing key informants. In addition, I will be expanding the research sites to include the EPA agents, the EHS management office, and more consistent daily observations in the laboratories and facilities.

One-on-one interviewing. I have completed some in-depth, long interviews. I will be doing more throughout the project. Some interviews will be more formal scheduled sessions, the questions prepared in a semi-structured protocol, i.e., a series of open-ended questions that are designed to allow the respondent to describe, in his/her words, the rationale, goals, problems and policy solutions. The interview will be developed, however, only after more observation in the laboratories, and of the committee work, so that the questions will respond to what I have observed. In addition, interviews will be conducted, informally, with students working in laboratories, while they are working there, and with staff and faculty before and after meetings which include the large committee meetings, small group discussions, and large public meetings organized to solicit feedback from the University community. For the most part, these informal interviews seek informants' interpretations of what is happening in the meetings or laboratory. Usually, I ask questions in the context of an ongoing observation or conversation among the parties I am observing.

EPA administrators and agents. Also, I hope to be able to interview the agents who inspected the University three years ago and the lawyers who negotiated the consent decree. My interviews with the University's attorneys have provided some background for the project, but I hope to gather additional information about the EPA's perspective.

Environmental Management Office. With this grant, I hope to place a research associate in the Environmental Management office for daily participant observation. This office is a new phenomenon in the University and one of the first products of the consent decree. Until the last summer, responsibility for overseeing various forms of safety and health hazards on campus had been distributed among 20 or more different offices (e.g. radioactive materials, biological materials, toxic waste, environmental health, chemical hygiene, lasers, fire prevention, etc.). A person seeking permission to use radioactive materials would call one office and call another to discuss a proposed laser experiment. If the sample to be analyzed included biological materials, a third distinct person needed to be brought in to secure the local campus "license" to use the materials or equipment. No research could proceed without the local permits, but coordination was the individual researcher's responsibility, compliance with the permit was also the individual researcher's responsibility, and if there were any problems, it was the individual researcher's job to find the right staff office and person from whom to get help. This was the system of dispersed responsibility that the EPA considered no system and no accountability for compliance. The first step of reorganization has involved the creation of a central Environmental Health and Safety office with a hierarchical structure and division of labor for the distinct laboratories and investigators on campus. The current slogan used by the EHS to characterize this transformation is "one number, one person." All departments and laboratories on campus will eventually be assigned a dedicated EHS liaison who will collect from among her colleagues in the EHS office the relevant persons and expertise needed

for the particular laboratory and experimental materials and conditions. These changes are just beginning with the move to new offices as the first step, spatially as well as organizationally consolidating the expertise that had been distributed across the campus.

The EHS office is an example of what Guston (2001) calls a boundary organization. The changes in this office are critical for the laboratory scientists because, "for most people, the legal system is both remote and arcane, and popular understandings of law and legality come largely from day to day experience in concrete bureaucratic settings, not from exposure to abstract doctrine (Macaulay 1987; Sarat 1990; Ewick and Silbey 1992, 1998a, Fuller et al, 1997). In mundane organizational encounters, formal structures - [such as an EHS office] - symbolize commitment to legal objectives, while informal norms give content to legal principles" (Edelman and Suchman). Thus it is critical to observe the relationship between the transformations in this office and transactions with the laboratories.

Laboratory Observations. Laboratory observations are key to this project. These will take place across a spectrum in which past practice and need for improvement varies with the authority structure and degree of environmental and health risk in the site. I have approached members of the faculty for permission to "hang around" their laboratories, and for my research assistant to do so as well. Interestingly, every member of the faculty whom I contacted agreed to our research in their laboratory. Although it is important to follow the discussions out of which the EHS system design is emerging, it is even more critical to trace the ways in which the law, the EPA, and the regulatory regime is being interpreted and responded to by actors within the organization. The entire EHS organization is created and mobilized to serve the research ongoing in the laboratories and, thus if we are to bridge previous research on regulation with an analysis of the organizational contexts of compliance, we must spend most of our time at this ground level of EHS practices. The culture of autonomy and freedom that characterizes the university has its raison d'etre at this ground and center of the University's organization. If there is to be compliance, or violation, of federal law, it will be in the laboratories.

Although the variation among laboratories resembles the format for presenting the results of a quantitative data analysis more than a project of participant observation and ethnography, it seems useful to represent the systematic nature of the fieldwork. By conducting interviews and observations in laboratories and facilities that vary along these dimensions, I will be able to distinguish compliance practices in organizations that are within the line authority of the University administration (where staff are directly accountable to supervisors with responsibility for evaluation and termination) from compliance practices in the domains of academic freedom, with mentoring relations between faculty and students, and collegial relations among faculty and department chairs and Deans. By studying the laboratory/facilities practices and the EHS office, I will be able to compare the interpretations of law and regulation (of what constitutes risk and safety, of what may provide minimal versus sustainable improvement) by those directly enacting those practices with those responsible for providing only technical assistance.

Data management. All field notes are typed up using Microsoft Word and kept in files organizationally and by topic. We record in our notebooks a description of what is going on in front of us and our queries about what is happening. These notes are typed up at the end of every day or at most at the end of two days. All tape-recorded interviews are transcribed by a person hired for this purpose. The transcriptions are also kept in Microsoft Word files. These are backed up regularly, and printed out as completed. Because of the number of interviews already conducted, ongoing, and to be continued, management of the transcriptions and files this is a time consuming process. I am planning to hire a person to work 3/4 time on this task alone rather than hire an assortment of people to do the transcribing as I have been doing.