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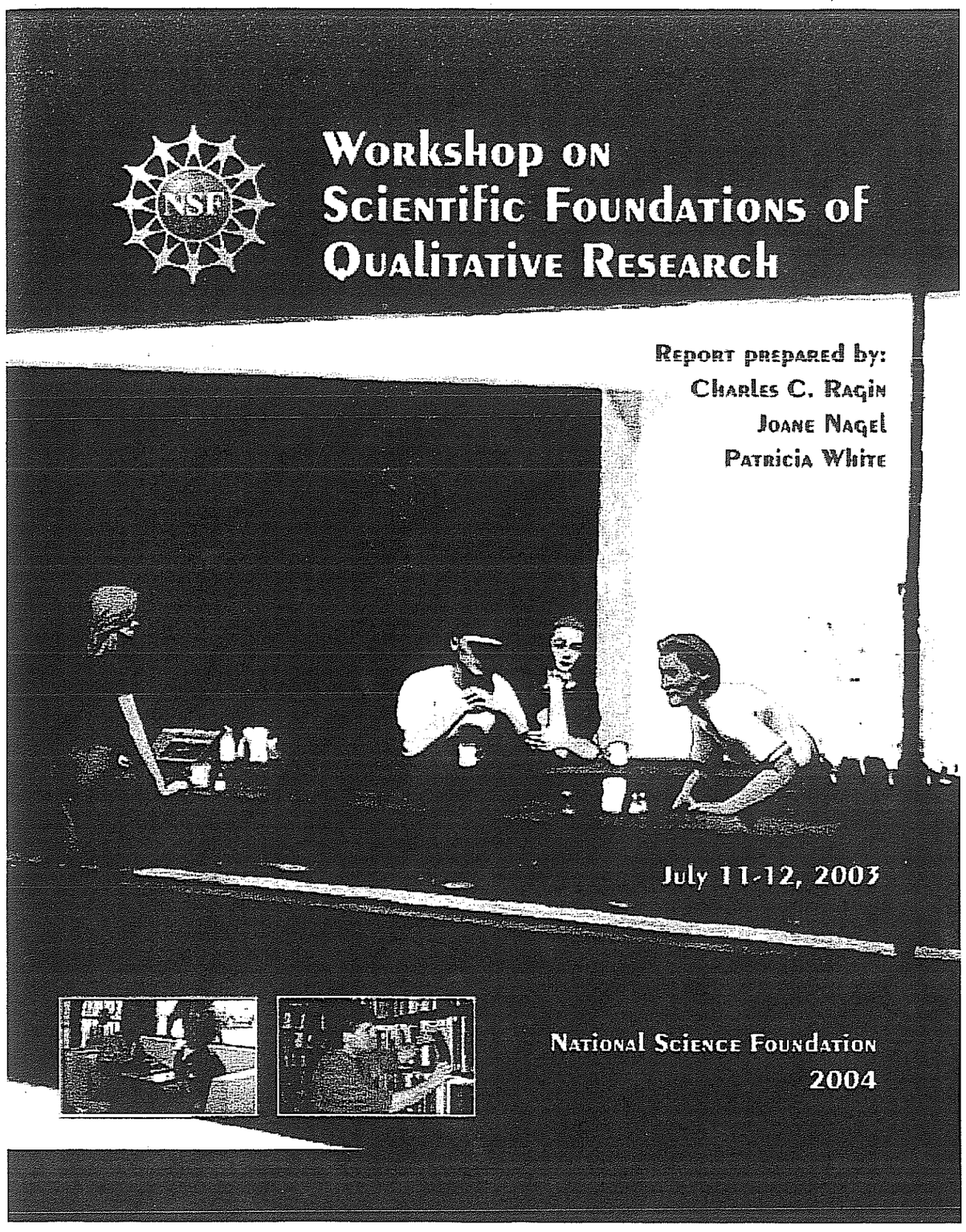

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Workshop on Scientific Foundations of Qualitative Research

Sociology Program
Methodology, Measurement & Statistics Program
Directorate for Social, Behavioral & Economic Sciences

National Science Foundation

Report prepared by:

Charles C. Ragin
University of Arizona

Joane Nagel
University of Kansas
National Science Foundation

Patricia White
National Science Foundation

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Background

In 2003 the National Science Foundation (NSF) awarded a grant to the University of Arizona to support a workshop on the scientific foundations of qualitative research. Principal Investigator, Charles Ragin, convened the workshop in July, 2003 at NSF in Arlington, Virginia. The purpose of the workshop was twofold. The first goal was to address a practical NSF Sociology Program concern. An increasing number of qualitative research projects are being submitted to the Sociology Program. These proposals employ a wide range of qualitative research approaches and data collection and analysis methods. Workshop participants were charged with the task of providing guidance both to reviewers and investigators about the characteristics of strong qualitative research proposals and the criteria for evaluating projects in NSF's merit review process. The second focus of the workshop was to provide recommendations to address the broader issue of how to strengthen qualitative methods in sociology and the social sciences in general. Qualitative research is especially valuable for generating and evaluating theory in the social sciences, revealing the workings of micro and macro processes, illuminating the mechanisms underlying quantitative empirical findings, and critically examining social facts. To the extent that the NSF can contribute to advancing the quality of qualitative research, it will have contributed to advancing research capacity, tools, and infrastructure in the social sciences.

The workshop on the Scientific Foundations of Qualitative Research was a remarkable gathering of prominent qualitative researchers with a high degree of consensus about the challenges of advancing qualitative methods and research in the social sciences. The 24 invited workshop participants represented a range of social science disciplines (sociology, political science, anthropology, social psychology, human development) and a wide variety of qualitative approaches and methods, ranging from those who study the fleeting social constructions that emerge in interpersonal interaction to researchers who examine broad institutional changes occurring over decades. Despite these differences, there was general agreement on the core features of qualitative research, the characteristics of strong qualitative projects, and the challenges of obtaining funding support for qualitative proposals.

This report is organized into two major sections—general guidance for developing qualitative research projects and recommendations for strengthening qualitative research. The intent of the first section of the report is to serve as a primer to guide both investigators developing qualitative proposals and reviewers evaluating qualitative research projects. The goal of the second section of the report is to present workshop recommendations for (1) designing and evaluating qualitative proposals and (2) supporting and strengthening qualitative research. This report presents a set of recommendations for investigators and reviewers of qualitative proposals and a list of activities that workshop participants consider important for strengthening qualitative research across the social sciences.

1. General Guidance for Developing Qualitative Research Projects

The social sciences have a long tradition of qualitative research. For example, much of Sociology's best known foundational scholarship is qualitative in nature or combines quantitative and qualitative data and methods, including the work of Max Weber, Karl Marx, Emile Durkheim, George Herbert Mead, W.E.B. DuBois, William Foote Whyte, Erving Goffman, Howard Becker, and Dorothy Smith, among many others. This broad legacy of ethnographic, interpretative, archival, and other forms of qualitative research has expanded in recent decades by a resurgence of scholarship using both well-established qualitative data and methods (e.g., field ethnography and historical sociology) and new forms of evidence and analysis (e.g., the collection, production, and interpretation of narrative and visual data). Despite the prominence of qualitative work in sociology and other social sciences, there is limited consensus about the proper standards of excellence, validity, reliability, credibility, fundability, and publishability of qualitative research, especially when compared to the fairly well-agreed upon standards for judging quantitative research.

Current debates about methodologies in the social sciences focus less on the legitimacy of qualitative research than on the yardsticks for judging qualitative research designs, the proper role of theory in qualitative research, or the best way to present credible findings and draw convincing conclusions from qualitative data. There is substantial, though not unanimous, agreement among sociologists regarding the evaluation of technical aspects of a quantitative project, but there is relatively less agreement about what constitutes a rigorous qualitative project. Quantitative researchers routinely are asked questions about statistical significance, falsifiability, theory testing, and hypothesis confirmation. Which of these questions is appropriate to ask about a qualitative project is less clearly agreed upon by those who design and evaluate qualitative research. Is it possible to establish equally rigorous (though not necessarily identical) standards for judging both quantitative and qualitative research? If so, would the identification and establishment of such standards place qualitative and quantitative research on more equal footing in the discipline's leading journals, funding agencies, and graduate training programs?

What is "Qualitative Research?"

A qualitative/quantitative divide permeates much of social science, but this should be seen as a continuum rather than as a dichotomy. At one end of this continuum is textbook quantitative research marked by sharply defined and delineated populations, cases, and variables, and well-specified theories and hypotheses. At the opposite end of this continuum is social research that eschews notions of populations, cases, and variables altogether and rejects the possibility of hypothesis testing. In fact, at this opposite end of the continuum, conventional theory is highly suspect, and the distinction between researcher and research subject vanishes. In between these two extremes are many different research strategies including many hybrid and combined strategies.

Considerations of the scientific foundations of qualitative research often are predicated on acceptance of the idea of "cases" and the notion that cases have analyzable features that can be conceived as "variables" (whether or not this specific term is used), and thus may be the basis for comparisons of various sorts. Further elaborating this position, since the characteristics of these features can differ from one "case" to the next, it may be productive to look at similarities and differences across cases or, more simply, to compare cases. To the quantitative researcher these methodological and epistemological assertions seem

straightforward and uncontroversial. Indeed, they are rarely if ever questioned and have the status of tacit assumptions. However, for those qualitative researchers situated at the far end of the qualitative-quantitative continuum, the idea of case variability and the need for comparisons across cases may involve difficult compromises because these features may be seen as obstacles to the conduct of good research. Qualitative research that accepts concepts of cases, analyzable case aspects, and the possibility of cross-case analysis should be seen as situated more towards the midpoint of the qualitative-quantitative continuum.

In this middle range of the qualitative-quantitative continuum, it is possible to specify a minimalist definition of qualitative research. This definition identifies many of its essential elements while still allowing for the vast array of qualitative approaches used today to study a range of topics such as the examination of the fleeting interactions among individuals, the study of dysfunctional families, the analysis of innovative organizations, and the investigation of large-scale macro-historical transformations. Such a minimalist definition of qualitative research includes the following:

- Qualitative research involves in-depth, case-oriented study of a relatively small number of cases, including the single-case study.
- Qualitative research seeks detailed knowledge of specific cases, often with the goal of finding out "how" things happen (or happened).
- Qualitative researchers' primary goal is to "make the facts understandable," and often place less emphasis on deriving inferences or predictions from cross-case patterns.

This definition of qualitative research posits a trade-off between in-depth, intensive knowledge based on the study of small *N*s on the one hand, and extensive, cross-case knowledge based on the study of large *N*s on the other hand.

It is important to point out that this definition does not presuppose or dictate a definition of "case." Cases may be utterances, actions, individuals, emergent phenomena, settings, events, narratives, institutions, organizations, or social categories such as occupations, countries, and cultures. In qualitative studies researchers often construct cases; these constructions can be considered one of the main products of the research. The important point is that no matter how cases are defined and constructed, in qualitative research they are studied in an in-depth manner. Because they are studied in detail, their number cannot be great. Note also that the cases of much qualitative research are multiple and often they are nested within each other. For example, in a study of a pilot's union, individual pilots may be cases; the local union itself may be a case; pilots as an occupation may be a case; the airline they work for may be a case; the airline industry itself might be a case; and so on. This multiplicity of cases is a common feature of qualitative research, and it is intertwined with processes of concept formation.

What is the Role of Theory in Qualitative Research?

Qualitative research has a multi-faceted relation to theory. The various connections between qualitative research and theory explored at the workshop include the following:

Qualitative research often is used to assess the credibility or applicability of theory. A quantitative researcher may observe a strong statistical relation between two variables, connect this relation to theory, but still not know if the mechanisms producing the statistical relation are the same as those described in the theory. In effect, the theory provides a framing device for the quantitative researcher to use when describing statistical results, but the key mechanisms in this framework may not have been observed directly. Qualitative research can be used to test for the existence of these mechanisms through in-depth investigation of selected cases. It is

important to remember that this qualitative testing is not statistical in nature, even though statistical methods may be used if the *N* of cases studied in depth is sufficient. The key question concerns the overall *consistency* of the in-depth case-level evidence with the script on mechanisms provided by the theory. This use of qualitative research to evaluate mechanisms is especially valuable in research that combines quantitative and qualitative methods. It has been used productively by a number of scholars, including some of the workshop participants.

Qualitative theory "testing," as just described, is also common in qualitative research that seeks to explore alternatives to conventional social scientific explanations and views. For example, the understanding of poverty that commonly emerges from much quantitative research is one of "deficits"—people in poverty often lack the resources needed to move out of poverty. The understanding of poverty that emerges from many qualitative studies of poverty is usually not one of deficits, however, but one of resourcefulness in the navigation of fluid and difficult settings. This use of qualitative research methods to challenge conventional views, though not unique to qualitative research, is one of the most common applications of qualitative methods. In this way, qualitative research prompts a critical evaluation of existing theory that is based on the detailed observation of mechanisms. While some quantitative scholars may dismiss these challenges because they are based on small *N*s or highly localized observations, the research is important because it draws attention to mechanisms that are invisible to quantitative researchers. These qualitative efforts can be seen as a form of theory testing because they involve assessments of the credibility of the assumptions and mechanisms underlying theories. They can also be seen as a means of constructing new theory because they contribute not only to the disconfirmation of existing explanations, they also provide new insights into the structure and operation of social phenomena.

Qualitative methods are also used to investigate cases that are theoretically anomalous. Researchers in the natural sciences often conduct in-depth case studies of anomalies since these are seen as fertile areas for theory revision and extension. Like qualitative researchers in the social sciences, natural scientists conduct these in-depth studies in order to resolve paradoxes and advance theory. Empirical observations may deviate from theoretical expectations in surprising and sometimes astonishing ways. The best way to find out why they deviate is to study the anomalous phenomena in detail. As a result, existing theories may be substantially revised or discarded altogether once anomalies are successfully explained. The use of qualitative methods to study anomalous social phenomena is one of their key applications. This attention to anomalies explains why qualitative research is often the source of new theories and why careful attention to case selection is crucial to its success.

More generally, qualitative researchers tend to gravitate to the study of phenomena that are undertheorized or outside the scope of existing theory. This attraction derives in part from a concern for the inadequacy of existing theory, but also from a desire to advance new theories and an interest in critically evaluating the tenets or assumptions of widely held explanations. Social phenomena are virtually limitless in their diversity, and new forms, patterns, and combinations are constantly emerging. Existing theory frequently is found to be deficient, and the concepts central to the study of these phenomena sometimes must be built from scratch through in-depth study. These new concepts become the cornerstones of new theories, which in turn may extend or challenge existing theories. These tasks are a central concern of many qualitative researchers.

The different connections between qualitative research and theory illustrate its distinctive relationships. Formal hypothesis testing *per se* is rare, though not precluded in qualitative research, but good qualitative research is in constant dialogue

with theory. Qualitative research is central to the assessment of the mechanisms specified in existing theory, to the production of alternative explanations, and to the generation of new theory.

How Does One Design Qualitative Research?

In quantitative research, data collection typically occurs well in advance of data analysis. If data analysis indicates that additional data collection is needed, it usually occurs in a subsequent study (e.g., another survey of the same population). In much qualitative research, by contrast, data collection and data analysis are not sharply differentiated. Researchers analyze data as they collect them and often decide what data to collect next based on what they have learned. Thus, in qualitative research it is often a challenge to specify a structured data collection and analysis plan in advance, though the logic of data collection and analysis can be presented in a proposal. In this respect, qualitative research is a lot like prospecting for precious stones or minerals. Where to look next often depends on what was just uncovered. The researcher-prospector learns the lay of the land by exploring it, one site at a time. Because much qualitative research has this sequential character, it can have the appearance of being haphazard, just as the explorations of an expert prospector might appear to be aimless to a naive observer.

Workshop participants agreed that this feature of qualitative research presents a major challenge for qualitative researchers seeking funding. The essential problem is that it is difficult to evaluate and fund research proposals that do not describe specific research activities and tasks. Qualitative researchers face the task of articulating in advance the contours and logic of a data collection and analysis plan, but one that allows for the flexibility needed as the research is conducted. Workshop participants offered several suggestions for addressing this problem:

- Researchers should know a substantial amount about their selected subject or topic before entering the field or archive. The cornerstone of good qualitative research is in-depth knowledge of cases. Qualitative researchers who already have background knowledge are more likely to identify promising leads than those who are starting from scratch. The downside of "knowing a lot" at the start is that researchers may enter the field or archive with preconceptions that interfere with the development of new insights.

- Researchers should focus on evaluating and extending theory throughout the research process. Almost every qualitative investigation has the potential to "strike gold" if the researcher pursues the right leads. The key is to link these leads to theoretical and substantive knowledge—to study them in the light of existing social scientific concepts (e.g., as consistent or inconsistent) and to use insights to revise old or invent new theories.

- Researchers should use theory to aid site and case selection. Comparison is central to much qualitative work. Existing theory usually indicates promising comparisons; these can be specified in advance. Once the study is underway, the researcher's evolving concepts and theories will indicate other fruitful comparisons. While these cannot be known in advance, researchers can assess the kinds of comparisons that might be feasible before beginning their research, based on existing knowledge of cases. Sometimes the most fruitful comparisons are with cases investigated by other researchers. Again, some of these comparisons can be anticipated at the outset; others will arise as the research progresses.

- Researchers should consider competing explanations and interpretations, and develop strategies and procedures for evaluating them. Some competing interpretations can be anticipated at the start of the research; others will emerge along the way. The important point is that researchers should develop a plan for collecting evidence that will allow for the evalu-

ation of alternative interpretations. In short, researchers shouldn't seek only confirming evidence; they should also seek disconfirming evidence.

These principles have important implications for the preparation and evaluation of qualitative research proposals and are revisited in the final section of this report, which is devoted to recommendations.

What Techniques Are Appropriate for Analyzing Qualitative Data?

One issue that came up frequently in the workshop was whether the term *qualitative research* signaled investigation of especially difficult types of social data (e.g., textual data such as historical documents or diaries, and transcriptions of conversations) or a specific approach to the analysis of social phenomena and thus by implication to the analysis of social data (e.g., ethnography). While the consensus was that qualitative research involved both, there was general recognition that the kinds of evidence favored by qualitative researchers often are different from those favored by quantitative researchers. After all, qualitative researchers seek in-depth knowledge of their cases. This in-depth knowledge usually calls for highly detailed evidence, and the procedures for analyzing such data are not codified nor are there established standards or conventions for judging the validity of the data or the credibility of the analysis.

In fact, a common claim is that the kinds of data central to qualitative research are difficult to analyze systematically, particularly using quantitative methods, because they are often incompatible with the conventional cases-by-variables format central to this approach. Some of the data analysis challenges facing qualitative researchers are being addressed with new techniques designed to cull subtle patterns from vast quantities of otherwise mundane data (e.g., patterns suggesting terrorist activities buried in mountains of everyday credit card transactions). These new methods are especially useful to researchers who have vast amounts of data (e.g., hours of recorded conversations, storerooms full of uncoded documents, and so on) and want to identify decisive bits of evidence not simply to summarize the whole body of data. For the most part, however, qualitative researchers are more like prospectors than strip miners; thus, these new techniques are relevant only to a minority of qualitative researchers. Because qualitative research emphasizes in-depth investigation, the analysis of specific kinds of "difficult" data is especially important. Some of the issues associated with analyzing qualitative data discussed at the workshop included:

Data on social processes. As noted above, qualitative researchers are especially concerned with assessing specific mechanisms identified in theories. Consequently, they often are interested in following social processes (e.g., "process tracing") as a way to evaluate mechanisms. In fieldwork, process tracing typically involves direct observation; in macro-historical work, it often entails detailed historical research, the combination of different kinds of evidence, and special attention to the timing of events.

Measuring subjectivity. One key to in-depth knowledge is evidence about subjectivity: What were they (the actors) thinking? What did they mean? What were their intentions? Questions about subjective phenomena arise in virtually all types of social research, and researchers sometimes make inferences on the basis of very limited evidence, especially in research that is purely quantitative. Qualitative researchers seeking to make such inferences often can draw from richly detailed data specifically designed to address issues of intent and meaning. In addition, qualitative data sometimes "talk back" and qualitative researchers can find themselves "disciplined" by their research settings so that knowledge from the setting challenges or corrects the researcher's initial assumptions or preliminary interpretations.

The role of the researcher. In much qualitative research, the investigator is the primary data collection instrument and can shape findings in a very direct way. Recognition of the impact of the researcher on data collection has lead qualitative researchers to be increasingly self-conscious about their role in the research process. Every researcher has a biography that becomes an element in and an aspect of the collection and analysis of data. The researcher as an active agent in the research process can be both an aid and a hindrance to data collection and analysis. The researcher's positionality is an aspect of all social research, especially in research settings where the researcher is visible and active and in projects that seek in-depth knowledge.

Seeking narrativity. Qualitative researchers often are interested in narrative data (e.g., autobiographies, literature, journals, diaries, first-hand accounts, newspapers) because narratives often provide important keys to both process (and thus mechanisms) and subjectivity. Further, qualitative researchers often seek to make sense of a case as whole, and narratives offer an important way to gain a more holistic view, especially of actors often overlooked in "official stories."

Understanding meaning systems. The culture of a case or a research setting is very often the primary basis for making sense of it. The centrality of meaning systems in qualitative research is as true in the micro-level study of social interaction as it is in the study of macro-historical phenomena. Often when exploring meaning systems, the researcher asks, "What kind of whole could have a part like this?" The representation of the whole by the part is difficult to capture in a conventional case-by-variable data format because the forest is not always easy to discern from the trees. In qualitative work, researchers make inferences about the larger picture based on detailed information about cases and their analyses of how different parts or aspects constitute multiple instances or manifestations of the same underlying meaning system.

Identifying necessary and sufficient conditions. In their case-oriented investigations of "how things happen," a common concern of qualitative researchers is the identification of conditions that might be considered necessary or sufficient (or jointly sufficient) for some outcome. This focus on conditions has an impact not only on data collection—researchers must gather a broad array of evidence—but also on data analysis—necessity and sufficiency are difficult to capture with correlational methods.

Set-theoretic relationships. In many respects, qualitative analysis is set-theoretic and not correlational in nature because it often seeks to identify uniformities or near-uniformities in social phenomena (as is attempted, for example, in applications of analytic induction). The set-theoretic emphasis of qualitative analysis is also apparent in computer techniques developed specifically for qualitative researchers. For example, capacities for performing complex "Boolean" (i.e., set-theoretic) searches are common in programs designed for the analysis of qualitative data. Such techniques must be "structured enough" to help researchers find patterns in their data, but not so structured that they build in implicit assumptions that blind researchers or constrain inquiry.

What Are the Most Productive, Feasible, and Innovative Ways of Combining Qualitative and Quantitative Methods?

Researchers often use both quantitative and qualitative methods in multi-method research projects. For instance, qualitative methods may be used to obtain information on meaning, affect, and culture, while quantitative methods are used to measure structural, contextual, and institutional features. Other combinations of qualitative and quantitative approaches involve hybrid strategies. For example, researchers may use qualitative methods to construct typologies of case narratives from in-depth survey data and then use modal narratives as categories in quantitative analysis. Many combinations are possible, depending on the goals of the

researcher and the assumptions, both theoretical and methodological, that structure the investigation.

Generally, workshop participants were supportive of attempts to combine qualitative and quantitative methods in social research. After all, qualitative research can provide what is often lacking in quantitative research, for example, evidence about mechanisms and meanings. Participants emphasized the many trade-offs between the intensive study of small *N*s and the extensive study of large *N*s, but also noted that these two approaches have complementary strengths.

One of the most common combination of methods involves using qualitative research in the initial stages of a large-*N* research project. When used in this way, qualitative investigation helps researchers get a better handle on which data to collect and how best to collect it (e.g., in a subsequent survey). Many hypotheses can be eliminated quickly based on qualitative investigation, as can many ways of pursuing specific kinds of evidence. In this combination of methods, the qualitative phase can be understood as a relatively inexpensive prologue to an upcoming large-*N* investigation, an informal pretest that refines both hypotheses and measures. Alternatively, qualitative investigation can be used as an explicit source of hypotheses, to be subsequently tested using large-*N* methods. After all, a common product of qualitative research is hypotheses to be tested, not formal tests. This alternate use of qualitative methods occurs rarely in a single study, however. Typically, qualitative researchers and quantitative researchers are not formally connected in any way when the hypothesis originates directly from qualitative research. Plus, it is implausible to propose an expensive, large-*N* study to test hypotheses that have yet to be derived. Other common combinations involve using qualitative methods in the final phases of a large-*N* investigation. As noted previously, causal mechanisms are rarely visible in conventional quantitative research; instead, they must be inferred. Qualitative methods can be helpful in assessing the credibility of the inferred mechanisms. Typically, these designs involve in-depth study of a small, carefully selected subsample of the cases from the large-*N* study. The selected cases can be examined in varying degrees of depth, depending on the goals of the researcher. The qualitative methods employed at this stage range from in-depth interviewing (the most common qualitative "add-on") to close observation of each case's situation and surroundings. At the macro-level, a parallel strategy is to append a small number of detailed country studies, which might include fieldwork in each country, to a large-*N* study of cross-national differences.

It is also possible to embed qualitative data collection techniques in a large-*N* study. For example, some researchers have included the Thematic Apperception Test (TAT) and other projective tests in surveys (the TAT as used here is a narrative elicitation device in which the informant is shown a picture and asked to make up a story with a beginning, middle and end, and tell what the person in the picture is feeling). Other researchers have used other storytelling devices such as vignettes, sometimes in a quasi-experimental manner, to get at respondents' meanings and related subjective phenomena. While these studies are still predominantly quantitative in nature—they are large-*N* investigations—there is at least an attempt to respond to some of the limitations of conventional quantitative methods.

Finally, some researchers attempt quantitative and qualitative analysis of the same cases. This strategy is common when *N*s are moderate in size (e.g., an *N* of 30). With a moderate number of cases, it is possible to establish a reasonable degree of familiarity with each case, to come to grips with each one as a distinct case. At the same time, the *N* of cases is sufficient for simple quantitative analyses. In studies of this type, researchers typically seek to demonstrate that the results of the quantitative and qualitative analyses are complementary.

What Standard Should Be Used to Evaluate the Results of Qualitative Research?

The *Results* section of a quantitative study is usually straightforward. The researcher reports estimates of the strength of relationships between variables, adds some estimates relevant to the proportion of explained variation, and then offers an assessment of the statistical significance of these estimates. There are no direct parallels in qualitative research and no easy grounding in probability theory. This grounding is not possible because the number of cases is usually too small. After all, the qualitative researcher has chosen to study a relatively small number of cases, sometimes a single case, in an in-depth manner. The trade-off for in-depth knowledge is that the qualitative researcher usually must forfeit the opportunity to amass a large *N* and utilize probability theory. As a result of this focus on detail in a small number of cases, many users and consumers of social science research, even those who are not critical of qualitative research, find this type of research suggestive rather than definitive, illuminating rather than convincing, "soft" rather than "hard." Because there is often less clear separation between data collection and data analysis in qualitative research, the path from data to results tends to seem less transparent than in quantitative projects. Indeed, the sequential nature of qualitative research with its ongoing dialectic between theory and evidence seems to preclude the possibility of formal theory testing as it is practiced in quantitative research.

What qualitative researchers offer instead is a web of connections within each case. The "piling" of evidence comes not from the observation of many cases as in conventional quantitative research, but from multiple observations of a given subject. Qualitative researchers tend to offer multiple demonstrations of their arguments within the same case. These multiple confirmations can range from "causal process observations" to multiple observations of a meaning system. The important point is that they are multiple and interconnected. In the best qualitative research, these different within-case observations are based on different data collection modalities and thus can be combined in a way that either "controls" for method or at least allows assessment of its impact.

Workshop participants emphasized that it is difficult to articulate standards of proof or plausibility for qualitative research without taking into account its relation to theory. This arises from the simple fact that much qualitative research is more designed for theory building than theory testing. Qualitative projects often focus on social phenomena about which theory is weak rather than well developed. Thus, qualitative research responds primarily to social scientists' need for both analytic description and descriptive analysis—important preludes to theory development. The evaluation of theory with qualitative data is not inherently antithetical to qualitative research, but qualitative projects must be designed with the goal of theory testing in order to achieve this important objective.

II. Recommendations for Designing, Evaluating, and Strengthening Qualitative Research in the Social Sciences

Workshop participants made a number of recommendations for the design, evaluation, and support of qualitative research projects. The workshop papers contained in Appendix 3 elaborate further the topics discussed above and contain many recommendations for strengthening the scientific foundations of qualitative research.

Recommendations for Designing and Evaluating Qualitative Research

Below is a summary of recommendations both to improve the quality of qualitative research proposals and to provide reviewers with some specific criteria for evaluating proposals for qualitative research. These guidelines amount to a specification of the *ideal* qualitative research proposal. A strong proposal should include as many of these elements as feasible. Researchers should strive to include these in their proposals and evaluators should consider these in judging proposals. In many respects, these recommendations apply to *all* research projects, not just to qualitative projects. Some will be more salient to qualitative projects; others will represent a challenge to project designers. To write a strong research proposal, researchers should:

- *Write clearly and engagingly* for a broad audience of social scientists. For example, define and explain disciplinary or project specific jargon.
- *Situate the research in relation to existing theory* whether the research goal is to challenge conventional views of some phenomenon or to develop new theory or chart new terrain.
- *Locate the research in the literature* citing existing studies of related phenomena, specifying comparable cases, building on findings of other researchers, and bringing this research into dialogue with the work of others.
- *Articulate the theoretical contribution* the research promises to make by indicating what gaps in theory this project will fill, what argument motivates the research, what findings might be expected.
- *Outline clearly the research procedures* including details about where, when, who, what, and how the research will be conducted.
- *Provide evidence of the project's feasibility* including documentation of permission to access research sites and resources and human subjects approval.
- *Provide a description of the data to be collected* including examples of the kinds of evidence to be gathered, the different modes of data collection that will be used, the places data will be obtained.
- *Discuss the plan for data analysis* including a discussion of different strategies for managing the various types of data to be gathered, how data will be stored and accessed, and the procedures for making sense of the information obtained.
- *Describe a strategy to refine the concepts and construct theory* as more is learned about the case(s) under investigation.
- *Include plans to look for and interpret disconfirming evidence*, alternative explanations, unexpected findings, and new interpretations—try to be wrong as well as right.

- *Provide an assessment of the possible impact of the researcher's presence and biography* on the research from the point of problem selection through data collection and analysis; this is especially important where the researcher is present during data collection and thus can have a direct impact on and potentially bias the results.
- *Provide information about replicability*, in particular try to consider and suggest ways in which others might reproduce this research.
- *Describe the data archive* that will be left behind for others to use and the plan for maintaining confidentiality.

Recommendations for Supporting and Strengthening Qualitative Research

Workshop participants recognized the importance and prestige of NSF funding, the desirability of making qualitative projects competitive in the NSF evaluation process, and the value of research resources provided by an NSF award. Participants had several recommendations for how NSF could better support and increase the productivity of qualitative researchers, especially in light of the specific resource needs of qualitative researchers. Workshop participants also made several recommendations for strengthening the scientific foundations of social science qualitative research in general.

- *Solicit proposals for workshops and research groups on cutting-edge topics in qualitative research methods, including:*
  - new technologies for qualitative data collection, storage, and integration (e.g., from multiple sources or multiple media);
  - new technologies for qualitative data analysis and the integration of data collection and analysis;
  - new ways to combine existing qualitative and quantitative methods in social research and the development of hybrid methodologies that bring together the strengths of qualitative and quantitative methods;
  - the logical and scientific foundations of qualitative research;
  - the creation of a national, longitudinal data archive on naturally occurring social phenomena, systematically and thematically organized.
- *Encourage investigators to propose training institutes* in qualitative research methods for advanced graduate students and junior faculty. Currently, there is one such institute established in political science for researchers in comparative politics and international relations (The Inter-University Consortium for Qualitative Research Methods). Ideally, there should be several such workshops and also coordination among them with respect to coverage and emphasis.
- *Provide funding opportunities for graduate departments to improve training* in qualitative research methods such as continuing workshops in qualitative research, involving 1-3 faculty and 5-10 graduate students, thematically organized and collective workshops involving clusters of research universities in major metropolitan areas (e.g., Boston, New York, Chicago, Los Angeles, etc.) with 1-3 faculty and 5-10 graduate students from each university.
- *Inform potential investigators, reviewers, and panelists of the criteria* used to evaluate qualitative research projects. For example, post this report on the NSF Sociology website and disseminate information about the criteria in outreach activities that the Program conducts.

- *Fund release time for PIs conducting qualitative research beyond the traditional 2 summer months* when extended support is essential to the research plan.

- *Fund long-term research projects beyond the traditional 24-months* for projects where longitudinal data are being collected, to track change over time, or to develop longstanding relationships with research sites and subjects.

- *Continue to support qualitative dissertation research* though NSF dissertation improvement grants. Much has been accomplished already in Sociology; this recommendation is to build on and expand current efforts.

- *Continue to support fieldwork in multiple sites*, especially international and comparative fieldwork in order to broaden the number of cases, provide points of comparison, and globalize social science knowledge.

Workshop participants suggested various ways to prioritize and combine some of these recommendations. For example, a national qualitative data archive could start out as a workshop, continue as an interdisciplinary research group, and culminate in a long-term research project involving a network of universities (both faculty and graduate students) in major urban areas. Work on new methods of qualitative data analysis or new ways to integrate qualitative and quantitative analysis could follow a similar path, but culminate instead in summer training institutes.

Appendix 1: Workshop Participants & Attendees

Charles Ragin, University of Arizona, Workshop Organizer

Julia Adams, Yale University

Elijah Anderson, University of Pennsylvania

Vilna Bashi, Rutgers University

Howard Becker

Robert Bell, National Science Foundation

Andrew Bennett, Georgetown University

Joel Best, University of Delaware

Kathleen Blee, University of Pittsburgh

Norman Bradburn, National Science Foundation

Linda Burton, Pennsylvania State University

Lynda Carlson, National Science Foundation

David Collier, University of California, Berkeley

Mitchell Duneier, Princeton University/CUNY Graduate School

Gary Alan Fine, Northwestern University

Rachelle Hollander, National Science Foundation

Jack Katz, University of California, Los Angeles

Michele Lamont, Harvard University

Richard Lempert, National Science Foundation

James Mahoney, Brown University

Joane Nagel, University of Kansas/National Science Foundation

Victor Nee, Cornell University

Katherine Newman, Princeton University

Terre Satterfield, University of British Columbia

Frank Scioli, National Science Foundation

Susan Silbey, Massachusetts Institute of Technology

Robert Smith, City University of New York

David Snow, University of California, Irvine

Mark Turner, Center for Advanced Study in the Behavioral Sciences

Sudhir Venkatesh, Columbia University

Eben Weitzman, University of Massachusetts, Boston

Patricia White, National Science Foundation