Qualitative research is research that attempts not only to understand the world, but also to understand it through the eyes of the participants whose world it is. Consequently, qualitative research must occur in a natural setting. The study begins, not with hypotheses to be proved or disproved, but with a flexible plan to explore a phenomenon. Only when all the data are collected is inductive reasoning used to draw conclusions. There are many challenges in qualitative research, from designing the study to analyzing the data. Among the qualitative research in education traditions are: (1) human ethnology; (2) ecological psychology; (3) holistic ethnography; (4) cognitive anthropology; (5) ethnography of communication; and (6) symbolic interactionism. Some politically charged qualitative methodologies are: democratic evaluation, neo-Marxist ethnography, feminist research, action research, and participatory research. Like other scholarship, qualitative research must adhere to accepted standards. Although the standards for quantitative research (objectivity, reliability, and lack of bias) are problematic for qualitative research, rationality, rigor, and fairness can still be sought. Researchers are beginning to understand that quantitative and qualitative research can be complementary. Social science research is leaning toward acceptance of a mixed methodology that uses quantitative and qualitative techniques. (Contains 14 references.) (SLD)
Qualitative Research: An Introduction

Purposes, Methodology, Criteria for Judgment, and a Rationale for Mixed Methodology

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Rationale

Qualitative research implies a “direct concern with experience as it is ‘lived’ or ‘felt’ or ‘undergone’” (Sherman & Webb, 1988, p. 7). Its aim is to not only to understand the world but to understand it through the eyes of the participants whose world it is. Hence, qualitative research must occur in a natural setting (Bogdan & Biklen, 1982; Marshall & Rossman, 1995). The researcher interacts with participants to varying degrees, observing, questioning, sometimes actually living as one of those to be studied. The researcher is concerned with “process,” with how and why things happen the way they do, with distilling the “meaning” of what is observed. The study begins not with hypotheses to be proved or disproved but with a flexible plan to explore a phenomenon. Only when all data are collected is inductive reasoning used to draw conclusions. (Bogdan & Biklen, 1982).

According to Marshall and Rossman (1995), qualitative research has four purposes: exploration, explanation, description, and prediction. Exploratory research is performed to investigate phenomena about which we know little or nothing, to identify variables for use in subsequent study, and to generate hypotheses for quantitative research. Explanatory research attempts to explain the forces and networks that cause and shape the phenomenon of interest. In descriptive research, the phenomenon is described in such a way that the reader feels that he or she understands the experiences of the participants. The aim of predictive research is to forecast events and behavior.

Specifically, Marshall (1985) suggests that qualitative research be used for the following:
Qualitative Research

*Research that delves in depth into complexities and processes

*Research on little-known phenomenon or innovative systems

*Research that seeks to explore where and why policy and local knowledge and practice are at odds

*Research on informal and unstructured linkages and processes in organizations

*Research on real, as opposed to stated, organizational goals

*Research that cannot be done experimentally for practical or ethical reasons

*Research for which relevant variables have yet to be identified

Qualitative research is "discovery" research. Variables are neither pre-chosen nor pre-defined. Theorized processes are not pared down to a few measurable variables, stripped of their complexity, and removed from context. Experience is taken as a whole, and those who are studied speak for themselves (Sherman & Webb, 1988). As Edson (1988, p. 45) eloquently writes, "We undertake qualitative inquiry not so much from the recognition that we do not know all the answers to our problems but rather from an appreciation of the fact that we do not know all the questions."

Methodology

The challenges of qualitative research are many, from designing the study to collecting the data, from analyzing the data to communicating it effectively. According to Marshall and Rossman (1995, pp. 5-6) the following challenges emerge at the proposal stage:

1. To develop a conceptual framework for the study that is thorough, concise, and elegant.

2. To plan a design that is systematic and manageable yet flexible.

3. To integrate these into a coherent document that convinces the proposal reader--a
funding agency or a dissertation committee—that the study should be done, can be done, and will be done.

How is this accomplished? And how does the process move from proposal to finished product? Marshall and Rossman suggest that qualitative research follows a cycle:

Theory (Tacit and Formal)
- Models
- Sensitizing Concepts
- Guiding Hypotheses
- Operational Definitions
- Development of Research Tools, Indices, and Strategies
- Observation, Testing, Data Collection, and Natural Experiments
- Data Analysis
- Development of Description and Typologies
- Generalization
- Explanation
- Assessment of Credibility and Transferability
- Prediction
- Implications for Policy and Practice

Questions are generated at every point in the process; focus may change as the cycle progresses.

Models, methods, and techniques for data analysis are, of course, interrelated. Many researchers have attempted to categorize the ways in which qualitative research has and can be done. Jacob (1988) has categorized qualitative research traditions in education as follows:
1. **Human ethnology** seeks to understand the behaviors in which people engage. Data are gathered through observation and analyzed quantitatively.

2. **Ecological psychology** stresses the interaction of individuals and environment in shaping society. Data are gathered through observation; the product is detailed description of interactions.

3. **Holistic ethnography** uses observation and description to document perspectives of participants.

4. **Cognitive anthropology** seeks to discover the underlying schema or categories that participants employ in making meaning of their experiences. Data are gathered through in-depth interviewing and analyzed qualitatively.

5. **Ethnography of communication** draws heavily on linguistics to explain how participants interact verbally and nonverbally.

6. **Symbolic interactionism** seeks to understand how individuals interact with others to make meaning in their lives in social organizations.

More recently, researchers have abandoned the implication that qualitative research is unbiased. Among the more politically charged research methodologies are democratic evaluation, neo-Marxist ethnography, feminist research, action research, and participatory research. Each is explicitly ideological, with social change as its basis.

In relating paradigm, design, and method, Hedrick (1994) lists hermeneutic dialectic, pattern matching, and case study as design approaches for constructivist, i.e., qualitative, research. Hermeneutic dialectic relies on consensus building of participants to reach cause-effect conclusions. Pattern-matching involves the use of quantitative methods on qualitative data. Case
studies document the processes and outcomes of particular social situations. In all three, unstructured in-person interviews, focus groups, observational recording, and “thick” description are appropriate methodology.

Marshall and Rossman (1995) divided data collection methods for qualitative research into two main parts: primary and supplemental. Primary techniques include the following:

1. **Participation** involves first-hand involvement in the society chosen for study. It can range from moderate to intensive.

2. **Observation** is the systematic recording of events, behaviors, and artifacts. The researcher’s role is one of on-looker.

3. **In-depth interviewing** is a conversation between researcher and participant and can range from completely structured to open-ended. Subtopics of in-depth interviewing include: (a) ethnographic interviewing, in which descriptive, structural, and contrast questions elicit information from participants; (b) phenomenological interviewing, in which participants are led to reveal their “world view”; (c) elite interviewing, in which only the influential and the prominent are interviewed; and (d) focus group interviewing, in which the researcher encourages group members to express different beliefs and points of view.

4. **Review of documents** is an unobtrusive way to gather information about everyday events. Documents may include minutes of meetings, logs, announcements, policy statements, and letters.

Supplemental data collection techniques include the following:

1. **Narratives**, the stories of people’s lives.

2. **Life histories**, in which researchers look at people’s lives through time, seeking to
discover how they are influenced by their societies.

3. **Historical analysis**, the discovery of past events.

4. **Films, video, and photographs**.

5. **Kinesics**, the study of body movement.

6. **Proxemics**, the study of people’s use of space.

7. **Unobtrusive measures**, such as analysis of physical artifacts.

8. **Questionnaires and surveys**.

9. **Projective techniques and psychological testing**, used to discover underlying personality traits.

**Setting Standards**

Like other scholarship, qualitative research must adhere to accepted standards. According to Datta (1994), these questions must be answered in the affirmative:

*Is there an internally consistent framework of assumptions, principles, and arguments?*

*Are the assumptions testable?*

*When tested, how well does the framework hold up?*

Smith (1994) acknowledges that the standards for quantitative research--objectivity, reliability, and unbiasedness--are problematic for qualitative research; however, she says, “rationality, rigor, and fairness can still be sought” (p. 42).

Zelditch (1962, cited in Marshall & Rossman, 1995) offers two criteria for judgment: Does the research have information adequacy, i.e., does it elicit the sought-after information? And is it efficient, i.e., does it allow the information to be collected with a minimum of time, access, and cost? Marshall and Rossman add a third criterion: Is the research ethical, i.e., does it
Marshall and Rossman (1995) believe that because qualitative research does not enjoy the same degree of acceptance as quantitative research, qualitative researchers must be especially aware of the need to defend their work on two criteria: soundness and usefulness. Questions to be asked include:

* How credible are the findings of the study?
* Are they transferable to another setting or group of people?
* Are we reasonably sure that the findings could be replicated with the same participants in the same context?
* Are the findings reflective of the participants and not of the researcher’s biases?

Similarly, Lincoln and Guba (1985) propose the following criteria for judging qualitative research: credibility, transferability, dependability, and confirmability. In ascertaining whether or not the criteria are attained, Marshall (1990, cited in Marshall and Rossman, 1995) suggests the following standards:

1. The method is explicated in detail.
2. Assumptions are stated, and biases are expressed.
3. There is evidence from the raw data to demonstrate the connections between the findings and the real world.
4. The research questions are stated and answered. Further questions are generated.
5. The reported study is accessible to other researchers.
6. Evidence is shown that the researcher searched for alternative explanations and checked out negative instances.

7. The report limits generalizability while making suggestions for transferability of findings.

8. Observations are made of a full range of activities over a full cycle of activities.

9. All work is documented and available for reanalysis.

10. Meaning is approached from a cross-cultural perspective.

11. Ethical standards are maintained.

12. People involved in the research benefit in some way.

13. Data collection is adequate and efficient.

Datta (1994), in describing three exemplary case studies, states these positive attributes:

1. Researchers were “upfront, explicit, and clear” (p. 64) about the viewpoints that they brought to the project.

2. The focus of the project was shifted as the project unfolded; researchers were responsive to the participants' beliefs rather than to a pre-set agenda.

3. Observers' personal reactions were presented as important information.

4. Studies were multisite and multimethod designs, using observations, questionnaires, interviews, and documents.

5. Attention was paid to context and issues.

6. The writing in the research report was eloquent, putting the reader into the minds of the participants.
Toward a Mixed Method

The literature is rife with comparisons and contrasts of qualitative and quantitative research. In a chapter aptly titled “Paradigm Wars,” Datta (1994) describes the two methodologies as follows:

The qualitative paradigm is characterized by acceptance of subjective information and skepticism about objective measures; by emphasis on a rich, comprehensive, in-depth understanding of what has happened as the meaning of events to those involved; and by emphasis on an additive approach to explanations in which understanding is considered complete only when all the available information can be incorporated into a satisfying pattern, and there is no inconsistent information that has been ignored. The quantitative paradigm is characterized by acceptance of objective measures and skepticism about subjective information, except when interpreted as attitudes and beliefs; by emphasis on a description of what happened in the context of initial expectations and observed events; and by a subtractive approach to explanations, which are considered adequate when rival hypotheses can be ruled out through control or comparison observations, through statistical adjustments, or through an accounting of much of the observed variation (p. 59).
Glesne and Peshkin (1992) contrast qualitative and quantitative research assumptions, purpose, and approach (p. 7).

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<thead>
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<tr>
<td><strong>Assumptions</strong></td>
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<tr>
<td>Social facts have an objective reality</td>
<td>Reality is socially constructed</td>
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<td>Primacy of method</td>
<td>Primacy of subject matter</td>
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<td>Variables can be identified and relationships measured</td>
<td>Variables are complex, interwoven, and difficult to measure</td>
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<td><strong>Approach</strong></td>
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<td>Begins with hypotheses and theories</td>
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<td>Manipulation and control</td>
<td>Emergence and portrayal</td>
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<td>Uses formal instruments</td>
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<td>Component analysis</td>
<td>Searches for patterns</td>
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Until recently, researchers in education and the other social sciences have been obligated
to choose a paradigm, practicing and defending one of the two. Quantitative researchers have
called their qualitative colleagues unscientific; their work has been called unreliable, biased, and
ungeneralizable. Qualitative researchers have called their quantitative colleagues slaves to
deductive reasoning; their work has been called shallow, removed from context, and irrelevant.
In comparing the paradigms, Reichardt and Rallis (1994) quote from St. Exupery’s The Little
Prince:

Grownups love figures. When you tell them that you have made a new friend, they never
ask you any questions about essential matters. They never say to you, “What does his
voice sound like? What games does he love best? Does he collect butterflies?” Instead
they demand: “How old is he? How many brothers has he? How much does he weigh?
How much money does his father make?” Only from these figures do they think they
have learned anything about him (p. 8).

Researchers have begun to believe that they must ask both the butterfly and the money questions
in order to have a true picture of the multiple and complex realities they study. This belief is
leading social science research toward a mixed methodology in which both qualitative and
quantitative techniques are employed.

According to House (1994), quantitative studies are “more precise, explicit, and
predetermined and assume that relevant variables can be identified in advance and validly
measured”; qualitative studies “assume less in advance, including which variables are relevant,
and are more open-ended, sensitive to context, and likely to be focused on the intentions,
explanations, and judgments of participants” (p. 17). But although the research methods may be
dichotomous, the findings of qualitative and quantitative research tend to blend into each other. Quantitative data are composites of qualitative interpretation; the numbers mean nothing unless the researcher puts meaning behind the numbers. Inference, as well, requires qualitative thought. He concludes, "...the choice does not have to be between a mechanistic science or an intentionalist humanism, but rather one of conceiving science as the social activity that it is, an activity that required considerable judgment, regardless of the methods employed (p. 19).

In analyzing four major research studies that used a variety of methods, Yin (1994) concludes that they share at least four commonalities: (1) thorough coverage and investigation of all evidence, (2) constant awareness and testing of rival hypotheses, (3) results with significant implications, and (4) investigatory expertise about the subject. The commonalities, he says, "transcend the differences" (p. 82). The important thing is to use the right methods to answer the right questions.

Reichardt and Rallis (1994), calling their research paradigm "postpositivism," believe that the arguments used against the compatibility of qualitative and quantitative research are flawed. In both traditions, "facts" are theory-laden, knowledge is fallible, and the nature of the inquiry is determined by the value structure of the researcher. Both share a commitment to the understanding of the human reality, a belief that the world is complex and difficult to understand, and an agreement that research should be rigorous and conscientious. Both can be used in tandem to explore the nature of social structures. As Giarelli (1988) says, "...it would be better to drop these labels altogether and simply get on with the business of developing the multiple ways of inquiring and knowing needed to understand the forms of educational practice central to our existence and to develop their possibilities for excellence" (p. 26).
References


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Purpose, Methodology, Criteria for Judgment and a Rational for Mixed Methodology

Vick A. Wilson

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