

Joseph A. Maxwell

# Qualitative Research Design

An Interactive Approach

3<sup>EDITION</sup>

41

APPLIED SOCIAL RESEARCH METHODS SERIES



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An Interactive Approach

**3** EDITION



Joseph A. Maxwell  
*George Mason University*

**41** APPLIED SOCIAL RESEARCH METHODS SERIES

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Printed in the United States of America

*Library of Congress Cataloging-in-Publication Data*

Maxwell, Joseph Alex, 1941-

Qualitative research design : an interactive approach / Joseph A. Maxwell. —3rd ed.

p. cm. -- (Applied social research methods ; v. 41)

Includes bibliographical references and index.

ISBN 978-1-4129-8119-4 (pbk.)

1. Research--Methodology. I. Title.

Q180.55.M4M39 2013

001.4'2—dc23 2012012021

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# An Interactive Model of Research Design



# Qualitative Research Design

**3** EDITION

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## Preface

A major impetus for a new edition of this book was the opportunity to expand it somewhat beyond the page limits of the Applied Social Research Methods Series, for which it was originally written. However, many readers of the previous editions have said that they appreciated the conciseness of the book, so I didn't want to lose this virtue. Consequently, much of the new material in this edition consists of additional examples of my students' work, including a second example of a dissertation proposal (Appendix B).

Another impetus has been the ongoing development of qualitative research,<sup>1</sup> with a flourishing of new approaches, including arts-based approaches, to how it is conducted and presented. I haven't attempted to deal comprehensively with these, which would have ballooned the book well past what I felt was an appropriate length, as well as taking it beyond an introductory level. If you want to investigate these developments, the *SAGE Encyclopedia of Qualitative Research* (Given, 2008), the *SAGE Handbook of Qualitative Research*, 4th edition (Denzin & Lincoln, 2011), and the journal *Qualitative Inquiry* are good places to start. I've tried to indicate, in Chapters 1 and 3, how I see my approach to design as compatible with some of these developments, in particular with aspects of postmodernism and with the approach known as bricolage, and I have substantially rewritten and expanded my discussion of research paradigms, in Chapter 2.

However, I am also skeptical of some of these developments, particularly those that adopt a radical constructivist and relativist stance that denies the existence of any reality that our research attempts to understand, and that rejects any conception of validity (or related terms) that addresses the relationship between our research conclusions and the phenomena that we study. While I am enough of a postmodernist to believe that every theory and conclusion is our own construction, with no claim to objective or absolute truth, and argue in Chapter 2 that no theory can capture the full complexity of the things we study, I refuse to abandon the goal of gaining a better understanding of the physical, social, and cultural world in which we live, or the possibility of developing credible explanations for these phenomena.

This position is grounded in my third impetus for revising this book: my increasing awareness of how my perspective on qualitative research has been informed by a philosophical realism about the things we study. I have developed this perspective at length in my book *A Realist Approach for Qualitative Research* (Maxwell, 2011b), arguing that the critical realist position I have taken is not only compatible with most qualitative researchers' actual practices, but can be valuable in helping researchers with some difficult theoretical, methodological, and political issues that they face. However, I offer this as a useful perspective among other perspectives, not as the single correct paradigm for qualitative research. As the writing teacher Peter Elbow (1973, 2006) argued, it is important to play both the "believing game" and the "doubting game" with any theory or position you encounter, trying to see both its advantages and its distortions

or blind spots. For this reason, I want the present book to be of practical value to students and researchers who hold a variety of positions on these issues. The model of qualitative research design that I develop here is compatible with a range of philosophical perspectives, and I believe it is broadly applicable to most qualitative research.

My greater awareness of the implications of a critical realist stance have led me to revise or expand other parts of the book—in particular, the discussion of theory in Chapter 3; developing (and revising) research questions in Chapter 4; research relationships and ethics, developing interview questions, and data analysis in Chapter 5; the concept of validity in Chapter 6; and the appropriate functions and content of a literature review in a research proposal in Chapter 7. I've also continued to compulsively tinker with the language of the book, striving to make what I say clearer. I would be grateful for any feedback you can give me on how the book could be made more useful to you.

Finally, I realized in revising this work that I had said almost nothing explicitly about how I define qualitative research—what I see as most essential about a qualitative approach. I say more about this in Chapter 2. However, a brief definition would be that qualitative research is research that is intended to help you better understand (1) the meanings and perspectives of the people you study—seeing the world from their point of view, rather than simply from your own; (2) how these perspectives are shaped by, and shape, their physical, social, and cultural contexts; and (3) the specific processes that are involved in maintaining or altering these phenomena and relationships. All three of these aspects of qualitative research, but particularly the last one, contrast with most quantitative approaches to research, which are based on seeing the phenomena studied in terms of variables—properties of things that can vary, and can thus be measured and compared across contexts. (I discuss the difference between variance and process thinking in Chapters 2, 3, and 4.) I see most of the more obvious aspects of qualitative research—its inductive, open-ended approach, its reliance on textual or visual rather than numerical data, and its primary goal of particular understanding rather than generalization across persons and settings—as due to these three main features of qualitative inquiry. (For a more detailed discussion of these issues, see Maxwell, 2011b.)

I want to acknowledge and thank all of the people who have had an influence on this edition; in particular, my students at George Mason University, especially the ones who have contributed their work as examples; the editorial staff at SAGE, who contributed a great deal to the final product, especially my editor, Vicki Knight, and Kalie Koscielak, Codi Bowman, Libby Larson, Nicole Elliot, and Amanda Simpson; and the reviewers of the drafts for this edition, whose feedback helped me to see ways to improve the book that I had overlooked:

David Carlone, The University of North Carolina at Greensboro

Sharon L. Caudle, Texas A&M University

Joseph W. Check, University of Massachusetts, Boston

Paula Dawidowicz, Walden University  
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 Ning Jackie Zhang, University of Central Florida

**Note**

1. Some qualitative practitioners prefer the term “inquiry” to “research,” seeing the latter as too closely associated with a quantitative or positivist approach. I agree with their concerns (see Maxwell, 2004a, 2004b), and I understand that some types of qualitative inquiry are more humanistic than scientific, but I prefer to argue for a broader definition of “research” that includes a range of qualitative approaches.

## *About the Author*

**Joseph A. Maxwell** is a Professor in the Graduate School of Education at George Mason University, where he teaches courses on research design and methods and on writing a dissertation proposal. He has published work on qualitative research and evaluation, mixed method research, sociocultural theory, Native American social organization, and medical education. He has also worked extensively in applied settings. He has presented seminars and workshops on teaching qualitative research methods and on using qualitative methods in various applied fields, and has been an invited speaker at conferences and universities in the United States, Puerto Rico, Europe, and China. He has a PhD in anthropology from the University of Chicago. He can be reached at [jmaxwell@gmu.edu](mailto:jmaxwell@gmu.edu).

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# 1

## *A Model for Qualitative Research Design*

In 1625, Gustav II, the king of Sweden, commissioned the construction of four warships to further his imperialistic goals. The most ambitious of these ships, named the *Vasa*, was one of the largest warships of its time, with 64 cannons arrayed in two gun decks. On August 10, 1628, the *Vasa*, resplendent in its brightly painted and gilded woodwork, was launched in Stockholm Harbor with cheering crowds and considerable ceremony. The cheering was short-lived, however; caught by a gust of wind while still in the harbor, the ship suddenly heeled over, foundered, and sank.

An investigation was immediately ordered, and it became apparent that the ballast compartment had not been made large enough to balance the two gun decks that the king had specified. With only 121 tons of stone ballast, the ship lacked stability. However, if the builders had simply added more ballast, the lower gun deck would have been brought dangerously close to the water; the ship lacked the buoyancy to accommodate that much weight.

In more general terms, the *design* of the *Vasa*—the ways in which the different components of the ship were planned and constructed in relation to one another—was fatally flawed. The ship was carefully built, meeting all of the existing standards for solid workmanship, but key characteristics of its different parts—in particular, the weight of the gun decks and ballast and the size of the hold—were not compatible, and the interaction of these characteristics caused the ship to capsize. Shipbuilders of that day did not have a general theory of ship design; they worked primarily from traditional models and by trial and error, and had no way to calculate stability. Apparently, the *Vasa* was originally planned as a smaller ship, and was then scaled up, at the king's insistence, to add the second gun deck, leaving too little room in the hold (Kvarning, 1993).

This story of the *Vasa* illustrates the general concept of design that I am using here: “an underlying scheme that governs functioning, developing, or unfolding” and “the arrangement of elements or details in a product or work of art” (Design, 1984, p. 343). This is the ordinary, everyday meaning of the term, as illustrated by the following quote from a clothing catalog:

It starts with design. . . . We carefully consider every detail, including the cut of the clothing, what style of stitching works best with the fabric, and what kind of closures make the most sense—in short, everything that contributes to your comfort. (L. L. Bean, 1998)

A good design, one in which the components work harmoniously together, promotes efficient and successful functioning; a flawed design leads to poor operation or failure.

However, most works dealing with *research* design use a different conception of design: “a plan or protocol for carrying out or accomplishing something (esp. a scientific experiment)” (Design, 1984, p. 343). They present “design” either as a menu of standard types of designs from which you need to choose (typical of experimental research), or as a prescribed series of stages or tasks in planning or conducting a study. Although some versions of the latter view of design are circular and recursive (e.g., Marshall & Rossman, 1999, pp. 26–27), all are essentially linear in the sense of being a one-directional *sequence* of steps from problem formulation to conclusions or theory, though this sequence may be repeated. Such models usually have a prescribed starting point and goal and a specified order for performing the intermediate tasks.

Neither typological nor sequential models of design are a good fit for qualitative research, because they attempt to establish in advance the essential steps or features of the study. (See Maxwell & Loomis, 2002, for a more detailed critique of these approaches.) In qualitative research, any component of the design may need to be reconsidered or modified during the study in response to new developments or to changes in some other component. In this, qualitative research is more like sciences such as paleontology than it is like experimental psychology. The paleontologist Neil Shubin (2008) described his fieldwork as follows:

The paradoxical relationship between planning and chance is best described by General Dwight D. Eisenhower’s famous remark about warfare: “In preparing for battle, I have found that planning is essential, but plans are worthless.” This captures field paleontology in a nutshell. We make all kinds of plans to get to promising field sites. Once we’re there, the entire field plan may be thrown out the window. Facts on the ground change our best-laid plans. (p. 4)

This description also characterizes qualitative research, in which designs are flexible rather than fixed (Robson, 2011), and inductive rather than following a strict sequence or derived from an initial decision. In a qualitative study, “research design should be a reflexive process operating through every stage of a project” (Hammersley & Atkinson, 1995, p. 24). The activities of collecting and analyzing data, developing and modifying theory, elaborating or refocusing the research questions, and identifying and addressing validity threats are usually all going on more or less simultaneously, each influencing all of the others. This process isn’t adequately represented by a choice from a prior menu or by a linear model, even one that allows multiple cycles, because in qualitative research, there isn’t an unvarying order in which the different tasks or components must be arranged, nor a linear relationship among the components of a design.

Typological or linear approaches to design provide a model *for* conducting the research—a prescriptive guide that arranges the tasks involved in planning or conducting a study in what is seen as an optimal order. In contrast, the model in this book is a model *of* as well as *for* research. It is intended to help you understand the *actual* design of your study, as well as to plan this study and carry it out. An essential feature of this

model is that it treats research design as a real entity, not simply an abstraction or plan (Maxwell, 2011b). The design of your research, like the design of the *Vasa*, is real and will have real consequences. Borrowing Kaplan's (1964, p. 8) distinction between the "logic-in-use" and "reconstructed logic" of research, this model can be used to represent the "design-in-use" of a study, the *actual* relationships among the components of the research, as well as the intended (or reconstructed) design. As Yin (1994) stated, "Every type of empirical research has an implicit, if not explicit, research design" (p. 19). Because a design always exists, it is important to *make* it explicit, to get it out in the open where its strengths, limitations, and consequences can be clearly understood.

This conception of design as a model of, as well as for, research is exemplified in a classic qualitative study of medical students (Becker, Geer, Hughes, & Strauss, 1961). The authors began their chapter on the design of the study by stating,

In one sense, our study had no design. That is, we had no well-worked-out set of hypotheses to be tested, no data-gathering instruments purposely designed to secure information relevant to these hypotheses, no set of analytic procedures specified in advance. Insofar as the term "design" implies these features of elaborate prior planning, our study had none.

If we take the idea of design in a larger and looser sense, using it to identify those elements of order, system, and consistency our procedures did exhibit, our study had a design. We can say what this was by describing our original view of the problem, our theoretical and methodological commitments, and the way these affected our research and were affected by it as we proceeded. (p. 17)

Thus, to design a qualitative study, you can't just develop (or borrow) a logical strategy in advance and then implement it faithfully. You need, to a substantial extent, to *construct* and *reconstruct* your research design, and this is a major rationale for my design model. Qualitative research design, to a much greater extent than quantitative research, is a "do-it-yourself" rather than an "off-the-shelf" process, one that involves "tacking" back and forth between the different components of the design, assessing their implications for one another.<sup>1</sup> It does not begin from a predetermined starting point or proceed through a fixed sequence of steps, but involves interconnection and interaction among the different design components.

In addition, as the architect Frank Lloyd Wright emphasized, the design of something must fit not only its use, but also its environment ("Organic Architecture," n.d.). You will need to continually assess how your design is actually working during the research and how it influences and is influenced by the context in which you're operating, and to make adjustments and changes so that your study can accomplish what you want.

My model of research design, which I call an "interactive" model (I could just as well have called it "systemic"), has a definite structure. However, it is an interconnected and flexible structure. In this book, I describe the key components of a research design, and present a strategy for creating coherent and workable relationships among these components. I also provide (in Chapter 7) an explicit plan for using your design to create a research proposal.

The model I present here has five components, each of which addresses a specific set of concerns:

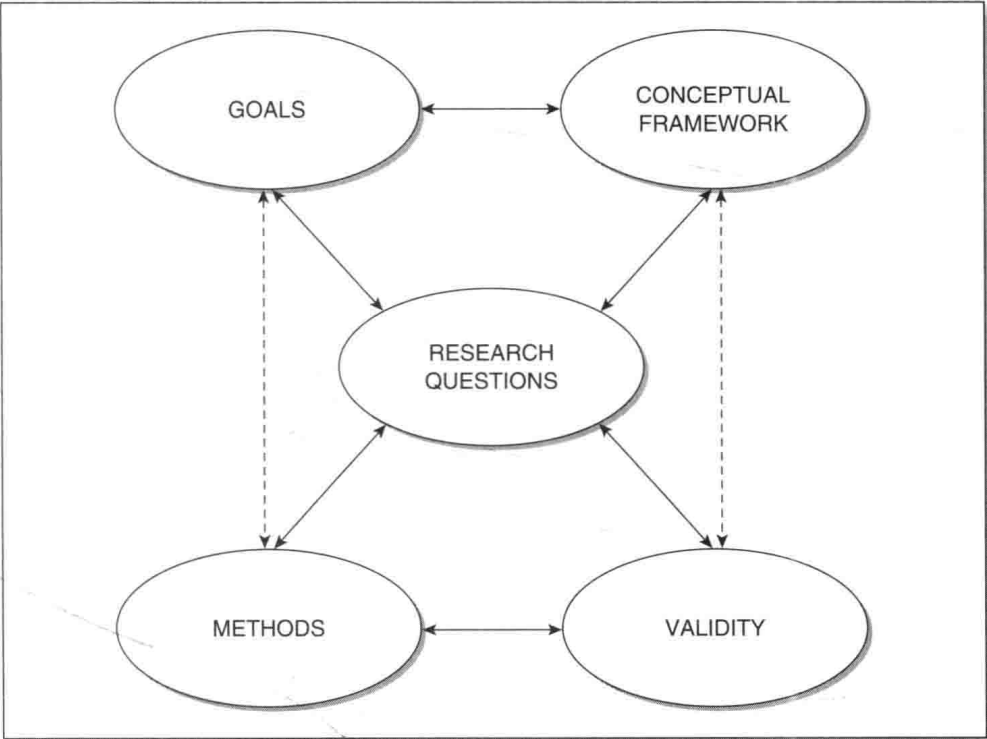
1. *Goals.* Why is your study worth doing? What issues do you want it to clarify, and what practices and policies do you want it to influence? Why do you want to conduct this study, and why should we care about the results?
2. *Conceptual framework.* What do you think is going on with the issues, settings, or people you plan to study? What theories, beliefs, and prior research findings will guide or inform your research, and what literature, preliminary studies, and personal experiences will you draw on for understanding the people or issues you are studying?
3. *Research questions.* What, specifically, do you want to better understand about the settings or participants that you are studying? What do you *not* know about these that you want to learn? What questions best capture these learnings and understandings, and how are these questions related to one another?
4. *Methods.* What will you actually do in conducting this study? What approaches and techniques will you use to collect and analyze your data? I identify four parts of this component of your design: (a) the relationships that you establish with the participants in your study; (b) your selection of settings, participants, times and places of data collection, and other data sources such as documents (what is often called “sampling,” although this term can be misleading for qualitative research, as I discuss in Chapter 5); (c) your methods for collecting your data; and (d) your data analysis strategies and techniques.
5. *Validity.* How might your results and conclusions be wrong? What are the plausible alternative interpretations and validity threats to these results and conclusions, and how will you deal with these? How can the data that you have, or that you could potentially collect, support or challenge your ideas about what’s going on? Why should we believe your results?

These components are not substantially different from the ones presented in many other discussions of research design (e.g., LeCompte & Preissle, 1993; Miles & Huberman, 1994; Robson, 2011; Rudestam & Newton, 2007, p. 5). What is innovative is the way the relationships among the components are conceptualized. In this model, the different parts of a design form an integrated and interacting whole, with each component closely tied to several others, rather than being linked in a linear or cyclic sequence. The relationships among these five components are displayed in Figure 1.1.

In this model, in contrast to some other views of research design, the research questions are not the starting point or controlling piece of the design, to which all other components must conform. Instead, they are at the *center* of the design; they are the heart, or hub, of the model, the component that connects most directly to all of the other components. They not only have the most direct influence on the other components, but are also the component most directly affected by the others; they should inform, and be sensitive to, all of the other components. As discussed in more detail in Chapter 4, your research questions are not fixed at the start of the study; they may need to be significantly modified or expanded as a result of changes in your goals or conceptual framework, or because of what you learn while doing the research.

The upper triangle of this model, the half that is more conceptual and usually is the first that you develop, should be a closely integrated unit. Your research questions should have a clear relationship to the goals of your study, and should be grounded in

**Figure 1.1**    An Interactive Model of Research Design



what is already known about the things you are studying and the theoretical concepts and models that can be applied to these. In addition, the goals of your study should be informed by current theory and knowledge, while your decisions about what theory and knowledge are relevant to your study depend on your goals and questions.

Similarly, the bottom triangle of the model, the more operational half of the design, should also be closely integrated. The methods you use must enable you to answer your research questions, and also to deal with plausible validity threats to these answers. Your questions, in turn, need to take into account the feasibility of the methods and the seriousness of particular validity threats, while the plausibility and relevance of particular validity threats, and your ability to deal with these, depend on the questions and methods chosen (as well as on your conceptual framework). Your research questions form the main link between the two halves of the model.

The connections among the different components of the model are not rigid rules or fixed implications; they allow for a certain amount of “give” and elasticity in the design. I find it useful to think of them as rubber bands. They can stretch and bend to some extent, but they exert a definite tension on different parts of the design, and beyond a particular point, or under certain stresses, they will break. This “rubber band” metaphor portrays a qualitative design as something with considerable flexibility, but in which there are constraints imposed by the different parts on one another, constraints which, if violated, make the design ineffective.