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FIFTH EDITION

RESEARCH DESIGN

Qualitative, Quantitative, and
Mixed Methods Approaches



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Analytic Contents of Research Techniques

Chapter 1. The Selection of a Research Approach

- Determining your research approach
- Identifying a worldview with which you are most comfortable
- Defining the three types of research approaches
- Using quantitative, qualitative, and mixed methods designs and methods

Chapter 2. Review of the Literature

- Assessing whether your topic is researchable
- Using steps in conducting a literature review
- Using computerized databases available for reviewing the literature
- Developing a priority for types of literature to review
- Designing a literature map
- Writing a good abstract of a research study
- Using important elements of a style manual
- Defining terms
- Employing a model for writing a literature review

Chapter 3. The Use of Theory

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- Identifying variables in a quantitative study
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- Using a script to write a theoretical perspective into a quantitative study
- Considering the types of theories used in qualitative research

- Placing theories in a qualitative study
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Chapter 4. Writing Strategies and Ethical Considerations

- Assessing the structure of a proposal for qualitative, quantitative, and mixed methods studies
- Using writing strategies for drafting a proposal
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- Stating a definition and the characteristics of mixed methods research
- Using a convergent mixed methods design
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- Using one of the complex mixed methods designs
- Choosing which design is best for a mixed methods study

Preface

Purpose

This book advances a framework, a process, and compositional approaches for designing a proposal or research project for qualitative, quantitative, and mixed methods research in the human, health, and social sciences. The ascendancy of qualitative research, the emergence of mixed methods approaches, and the growth of quantitative designs have created a need for this book's unique comparison of the three approaches to inquiry. This comparison begins with preliminary consideration of philosophical assumptions for all three approaches, a review of the literature, an assessment of the use of theory and conceptual frameworks in research approaches, and reflections about the importance of writing and ethics in scholarly inquiry. The book then addresses the key elements in the process of designing and conducting a research project: writing an introduction; stating a purpose or research aims for the study; identifying research questions and hypotheses; and advancing methods and procedures for data collection, analysis, and interpretation. At each step in this process, the reader is taken through qualitative, quantitative, and mixed methods approaches.

Audience

This book is intended for students and faculty who seek assistance in preparing a plan, proposal, or research project for a scholarly journal article, a dissertation, a thesis, or an application for funding. At a broader level, the book may be useful as both a reference book and a textbook for courses in research methods. To best take advantage of the design features in this book, the reader needs a basic familiarity with qualitative and quantitative research; however, terms will be explained and defined and recommended strategies advanced for those needing introductory assistance in the design process. Highlighted terms in the text and a glossary of the terms at the back of the book provide a working language for understanding research. This book also is intended for a broad audience in the human, health, and social sciences. Readers' comments from the past four editions suggest that individuals using the book come from many disciplines and fields. We hope that researchers in fields such as marketing, management, criminal justice, communication studies, psychology, sociology, K-12 education, higher and postsecondary education, nursing, family medicine, health services research, global health, behavioral health, urban studies, family research, and other fields of study will find this fifth edition useful.

Format

In each chapter, we share examples drawn from varied disciplines. These examples are drawn from books, journal articles, dissertation proposals, and dissertations. Though our primary specialization is in educational psychology, the health sciences, and in psychology, the illustrations are intended to be inclusive of many fields. They reflect issues in social justice and examples of studies with marginalized individuals in our society as well as the traditional samples and populations studied by researchers. Inclusiveness also extends to methodological pluralism in research today, and the discussion incorporates alternative philosophical ideas, diverse modes of inquiry, and numerous procedures.

This book is not a detailed method text; instead, we highlight the essential features of research design. We have attempted to reduce research to its essential core ideas so that researchers can plan a thorough and thoughtful study. The coverage of research designs is limited to frequently used forms: surveys and experiments in quantitative research; narrative research, phenomenology, grounded theory, ethnography, and case studies in qualitative research; and convergent, explanatory sequential, and exploratory sequential designs in mixed methods research. Although students preparing a dissertation proposal should find this book helpful, topics related to the politics of presenting and negotiating a study with review committees are addressed thoroughly in other texts.

Consistent with accepted conventions of scholarly writing, we have tried to eliminate any words or examples that convey a discriminatory (e.g., sexist or ethnic) orientation. Examples were selected to provide a full range of gender and cultural orientations. Throughout the text we do not favor either qualitative or quantitative research. Indeed, we have intentionally altered the order of qualitative and quantitative examples throughout the book. Readers should also note that in the longer examples cited in this book, many references are made to other writings. Only the reference to the work we use in the illustration will be cited, not the entire list of references embedded within any particular example. As with earlier editions, we have maintained features to enhance the readability and understandability of the material: bullets to emphasize key points, numbered points to stress key steps in a process, and longer examples of complete passages with annotations to highlight key research ideas that are being conveyed by the authors.

In this fifth edition of the book, new features have been added in response to developments in research and reader feedback:

- In this edition, we shape the discussion not only around designing a *proposal for a research project* but also around the steps in designing a *research study*. Thus, the emphasis on designing a research study (as opposed to focusing only on a proposal) is slightly larger for this edition than in past editions.

- We have added more information about the epistemological and ontological assumptions as they relate to research questions and methods.
- In the worldview section, we now include more on the transformative worldview.
- In the methods discussion, we have added more on specific approaches such as case studies, participatory action research, and visual methods in qualitative research.
- Also in the qualitative methods, we have added information about social media and online qualitative methods. Also, we have added more information on memoing and on reflexivity.
- In the mixed methods, we now incorporate information about action research (participatory research) and program evaluation.
- In the respective methods chapters, we have included more on qualitative and quantitative data analysis software.
- In the theory section, we have added information about causality, and then incorporated its relationship to statistics in the quantitative methods.
- For our quantitative, qualitative, and mixed methods sections, we have incorporated sections on writing discussion sections into each of these methodologies.
- We have incorporated new information into all of our methods chapters—quantitative, qualitative, and mixed methods. Our mixed methods chapter now reflects the latest advances in the field.
- Throughout the book, we have cited updated editions of research methods books that have emerged since the last edition and added current references and additional readings.

Outline of Chapters

This book is divided into two parts. Part I consist of steps that researchers need to consider *before* they develop their proposals or plans for research. Part II discusses the various sections used to develop a scholarly research proposal for a thesis, dissertation, or a research report.

Part I. Preliminary Considerations

This part of the book discusses preparing for the design of a scholarly study. It contains Chapters 1 through 4.

Preliminary Considerations

Chapter 1 The Selection of a Research Approach

Chapter 2 Review of the Literature

Chapter 3 The Use of Theory

Chapter 4 Writing Strategies and
Ethical Considerations

This book is intended to help researchers develop a plan or proposal for a research study. Part I addresses several preliminary considerations that are necessary before designing a proposal or a plan for a study. These considerations relate to selecting an appropriate research approach, reviewing the literature to position the proposed study within the existing literature, deciding on whether to use a theory in the study, and employing—at the outset—good writing and ethical practices.

The Selection of a Research Approach

Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. This plan involves several decisions, and they need not be taken in the order in which they make sense to us and the order of their presentation here. The overall decision involves which approach should be used to study a topic. Informing this decision should be the philosophical assumptions the researcher brings to the study; procedures of inquiry (called **research designs**); and specific **research methods** of data collection, analysis, and interpretation. The selection of a research approach is also based on the nature of the **research problem** or issue being addressed, the researchers' personal experiences, and the audiences for the study. Thus, in this book, *research approaches*, *research designs*, and *research methods* are three key terms that represent a perspective about research that presents information in a successive way from broad constructions of research to the narrow procedures of methods.

The Three Approaches to Research

In this book, three research approaches are advanced: (a) qualitative, (b) quantitative, and (c) mixed methods. Unquestionably, the three approaches are not as discrete as they first appear. Qualitative and quantitative approaches should not be viewed as rigid, distinct categories, polar opposites, or dichotomies. Instead, they represent different ends on a continuum (Creswell, 2015; Newman & Benz, 1998). A study *tends* to be more qualitative than quantitative or vice versa. **Mixed methods research** resides in the middle of this continuum because it incorporates elements of both qualitative and quantitative approaches.

Often the distinction between **qualitative research** and **quantitative research** is framed in terms of using words (qualitative) rather than numbers (quantitative), or better yet, using closed-ended questions and responses (quantitative hypotheses) or open-ended questions and responses (qualitative interview questions). A more complete way to view the gradations of differences between them is in the basic philosophical assumptions researchers bring to the study, the types of research strategies used in the research (e.g., quantitative experiments or qualitative **case studies**), and the specific methods employed in conducting these strategies (e.g., collecting data quantitatively on instruments versus collecting qualitative data through observing a setting). Moreover, there is a historical evolution to both approaches—with

the quantitative approaches dominating the forms of research in the sciences from the late 19th century up until the mid-20th century. In the latter half of the 20th century, interest in qualitative research increased and along with it, the development of mixed methods research. With this background, it should prove helpful to view definitions of these three key terms as used in this book:

- *Qualitative research* is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. The final written report has a flexible structure. Those who engage in this form of inquiry support a way of looking at research that honors an inductive style, a focus on individual meaning, and the importance of reporting the complexity of a situation.

- *Quantitative research* is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and discussion. Like qualitative researchers, those who engage in this form of inquiry have assumptions about testing theories deductively, building in protections against bias, controlling for alternative or counterfactual explanations, and being able to generalize and replicate the findings.

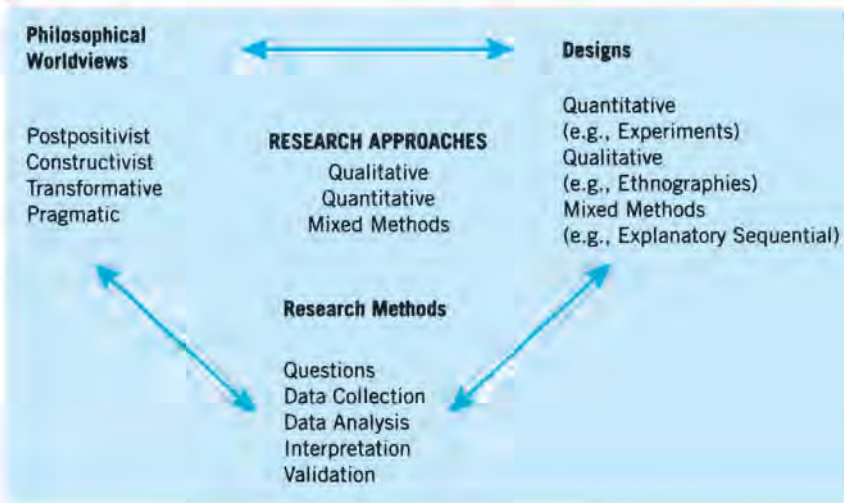
- *Mixed methods research* is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the integration of qualitative and quantitative data yields additional insight beyond the information provided by either the quantitative or qualitative data alone.

These definitions have considerable information in each one of them. Throughout this book, we will discuss the parts of the definitions so that their meanings will become clear to you as you read ahead.

Three Components Involved in an Approach

Two important components in each definition are that the approach to research involves philosophical assumptions as well as distinct methods or procedures. The broad research approach is the *plan or proposal to conduct research*, involves the intersection of philosophy, research designs, and specific methods. A framework that we use to explain the interaction of these three components is seen in Figure 1.1. To reiterate, in planning a study,

Figure 1.1 | A Framework for Research—The Interconnection of Worldviews, Design, and Research Methods



researchers need to think through the philosophical worldview assumptions that they bring to the study, the research design that is related to this worldview, and the specific methods or procedures of research that translate the approach into practice.

Philosophical Worldviews

Although philosophical ideas remain largely hidden in research (Slife & Williams, 1995), they still influence the practice of research and need to be identified. We suggest that individuals preparing a research proposal or plan make explicit the larger philosophical ideas they espouse. This information will help explain why they chose qualitative, quantitative, or mixed methods approaches for their research. In writing about worldviews, a proposal might include a section that addresses the following:

- The philosophical worldview proposed in the study
- A definition of basic ideas of that worldview
- How the worldview shaped their approach to research

We have chosen to use the term *worldview* as meaning “a basic set of beliefs that guide action” (Guba, 1990, p. 17). Others have called them *paradigms* (Lincoln, Lynham, & Guba, 2011; Mertens, 2010); *epistemologies* and *ontologies* (Crotty, 1998), or *broadly conceived research methodologies* (Neuman, 2009). We see worldviews as a general philosophical orientation about the world and the nature of research that a researcher brings to a study. Individuals develop worldviews based on their discipline orientations and

research communities, advisors and mentors, and past research experience. The types of beliefs held by individual researchers based on these factors often lead to embracing a strong qualitative, quantitative, or mixed method approach in their research. Although there is ongoing debate about what worldviews or beliefs researchers bring to inquiry, we will highlight four that are widely discussed in the literature: postpositivism, constructivism, transformative, and **pragmatism**. The major elements of each position are presented in Table 1.1.

The Postpositivist Worldview

The postpositivist assumptions have represented the traditional form of research, and these assumptions hold true more for quantitative research than qualitative research. This worldview is sometimes called the *scientific method*, or doing *science research*. It is also called *positivist/postpositivist research*, *empirical science*, and *postpositivism*. This last term is called postpositivism because it represents the thinking after positivism, challenging the traditional notion of the absolute truth of knowledge (Phillips & Burbules, 2000) and recognizing that we cannot be absolutely positive about our claims of knowledge when studying the behavior and actions of humans. The post-positivist tradition comes from 19th-century writers, such as Comte, Mill, Durkheim, Newton, and Locke (Smith, 1983) and more recently from writers such as Phillips and Burbules (2000).

Postpositivists hold a deterministic philosophy in which causes (probably) determine effects or outcomes. Thus, the problems studied by postpositivists reflect the need to identify and assess the causes that influence outcomes, such as those found in experiments. It is also reductionistic in that the intent is to reduce the ideas into a small, discrete set to test, such as the variables that comprise hypotheses and research questions.

Table 1.1 Four Worldviews

Postpositivism	Constructivism
<ul style="list-style-type: none"> - Determination - Reductionism - Empirical observation and measurement - Theory verification 	<ul style="list-style-type: none"> • Understanding • Multiple participant meanings • Social and historical construction • Theory generation
Transformative	Pragmatism
<ul style="list-style-type: none"> - Political • Power and justice oriented - Collaborative - Change-oriented 	<ul style="list-style-type: none"> • Consequences of actions • Problem-centered • Pluralistic • Real-world practice oriented

The knowledge that develops through a postpositivist lens is based on careful observation and measurement of the objective reality that exists “out there” in the world. Thus, developing numeric measures of observations and studying the behavior of individuals becomes paramount for a postpositivist. Finally, there are laws or theories that govern the world, and these need to be tested or verified and refined so that we can understand the world. Thus, in the scientific method—the accepted approach to research by postpositivists—a researcher begins with a theory, collects data that either supports or refutes the theory, and then makes necessary revisions and conducts additional tests.

In reading Phillips and Burbules (2000), you can gain a sense of the key assumptions of this position, such as the following:

- 1 Knowledge is conjectural (and antifoundational)—absolute truth can never be found. Thus, evidence established in research is always imperfect and fallible. It is for this reason that researchers state that they do not prove a hypothesis; instead, they indicate a failure to reject the hypothesis.

- 2 Research is the process of making claims and then refining or abandoning some of them for other claims more strongly warranted. Most quantitative research, for example, starts with the test of a theory.

Data, evidence, and rational considerations shape knowledge. In practice, the researcher collects information on instruments based on measures completed by the participants or by observations recorded by the researcher.

- 3 Research seeks to develop relevant, true statements, ones that can serve to explain the situation of concern or that describe the causal relationships of interest. In quantitative studies, researchers advance the relationship among variables and pose this in terms of questions or hypotheses.

- 4 Being objective is an essential aspect of competent inquiry; researchers must examine methods and conclusions for bias. For example, standard of validity and reliability are important in quantitative research.

The Constructivist Worldview

Others hold a different worldview. Constructivism or social constructivism (often combined with interpretivism) is such a perspective, and it is typically seen as an approach to qualitative research. The ideas came from Mannheim and from works such as Berger and Luckmann’s (1967) *The Social Construction of Reality* and Lincoln and Guba’s (1985) *Naturalistic Inquiry*. More recent writers who have summarized this position are Lincoln and

colleagues (2011), Mertens (2010), and Crotty (1998), among others. **Social constructivists** believe that individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences—meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas. The goal of the research is to rely as much as possible on the participants' views of the situation being studied. The questions become broad and general so that the participants can construct the meaning of a situation, typically forged in discussions or interactions with other persons. The more open-ended the questioning, the better, as the researcher listens carefully to what people say or do in their life settings. Often these subjective meanings are negotiated socially and historically. They are not simply imprinted on individuals but are formed through interaction with others (hence social constructivism) and through historical and cultural norms that operate in individuals' lives. Thus, constructivist researchers often address the processes of interaction among individuals. They also focus on the specific contexts in which people live and work in order to understand the historical and cultural settings of the participants. Researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences. The researcher's intent is to make sense of (or interpret) the meanings others have about the world. Rather than starting with a theory (as in postpositivism), inquirers generate or inductively develop a theory or pattern of meaning.

For example, in discussing constructivism, Crotty (1998) identified several assumptions:

- 1 Human beings construct meanings as they engage with the world they are interpreting. Qualitative researchers tend to use open-ended questions so that the participants can share their views.
- 2 Humans engage with their world and make sense of it based on their historical and social perspectives—we are all born into a world of meaning bestowed upon us by our culture. Thus, qualitative researchers seek to understand the context or setting of the participants through visiting this context and gathering information personally. They also interpret what they find, an interpretation shaped by the researcher's own experiences and background.
- 3 The basic generation of meaning is always social, arising in and out of interaction with a human community. The process of qualitative research is largely inductive; the inquirer generates meaning from the data collected in the field.

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This best-selling text pioneered the comparison of qualitative, quantitative, and mixed methods research design. For all three approaches, John W. Creswell and new co-author J. David Creswell include a preliminary consideration of philosophical assumptions, key elements of the research process, a review of the literature, an assessment of the use of theory in research applications, and reflections about the importance of writing and ethics in scholarly inquiry.

New to This Edition


- Updated discussion on designing a proposal for a research project and on the steps in designing a research study
- Additional content on epistemological and ontological positioning in relation to the research question and chosen methodology and method
- Additional updates on the transformative worldview
- Expanded coverage on specific approaches such as case studies, participatory action research, and visual methods
- Additional information about qualitative and quantitative data analysis, social media, online qualitative methods, and mentoring and reflexivity in qualitative methods
- Incorporation of action research and program evaluation in mixed methods and coverage of the latest advances in the mixed methods field
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- Incorporation of writing discussion sections into each of the three methodologies

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