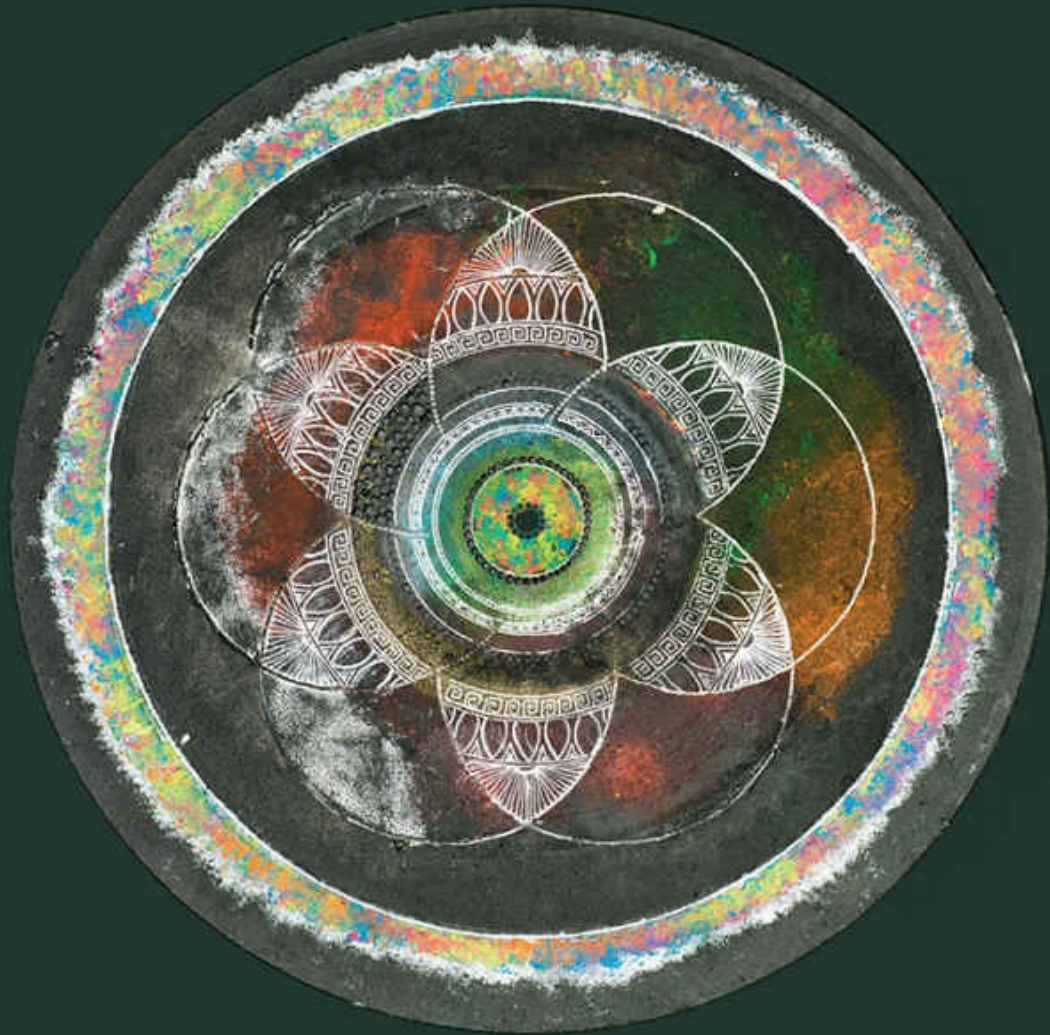


JOHN W. CRESWELL • J. DAVID CRESWELL



FIFTH EDITION

RESEARCH DESIGN

Qualitative, Quantitative, and
Mixed Methods Approaches



Research Design

Fifth Edition

I dedicate this book to all of my mentees and former students over the years who have engaged in this fascinating process of research and who have welcomed my suggestions for improving their scholarly works. I also welcome my son, J. David Creswell, a noted psychologist and researcher at Carnegie Mellon University, as my coauthor.

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Research Design

Qualitative, Quantitative, and Mixed Methods Approaches

Fifth Edition

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Analytic Contents of Research Techniques

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- 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

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- 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
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Chapter 3. The Use of Theory

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Chapter 9. Qualitative Methods

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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](#).

Chapter 1. The Selection of a Research Approach

In this chapter, we begin by defining quantitative, qualitative, and mixed methods approaches. We then discuss how philosophy, designs, and methods intersect when one uses one of these approaches. We review different philosophical stances; advanced types of qualitative, quantitative, and mixed methods designs; and then discuss the methods associated with each design. We also consider the factors that go into the choice of an approach to research. Thus, this chapter should help proposal developers decide whether a qualitative, quantitative, or mixed methods approach is suitable for their proposed research project.

Chapter 2. Review of the Literature

It is important to extensively review the literature on your topic before you design your proposal. Thus, you need to begin with a researchable topic and then explore the literature using the steps advanced in this chapter. This calls for setting a priority for selecting material from the literature, drawing a visual map of studies that relate to your topic, writing good abstracts, employing skills learned from using style manuals, and defining key terms. This chapter should help researchers thoughtfully consider relevant literature on their topics and start compiling and writing literature reviews.

Chapter 3. The Use of Theory

Theories serve different purposes in the three approaches inquiry. In quantitative research, they provide a proposed explanation for the relationship among variables being tested by the investigator. In qualitative research, they may often serve as a lens for the inquiry or they may be generated during the study. In mixed methods studies, researchers employ them in many ways, including those associated with quantitative and qualitative approaches. This chapter helps researchers consider and plan how theory might be incorporated into their studies.

Chapter 4. Writing Strategies and Ethical Considerations

It is helpful to have an overall outline of the topics to be included in a proposal or research study before you begin writing. Thus, this chapter begins with different outlines for writing proposals. The outlines can be used as models depending on whether your proposed study is qualitative, quantitative, or mixed methods. Then we convey several ideas about the actual writing of the proposal, such as developing a habit of writing, and grammar ideas that have been helpful to us in improving our scholarly writing. Finally, we turn to ethical issues and discuss these not as abstract ideas, but as considerations that need to be anticipated in multiple phases of the research process.

Part II. Designing Research

In [Part II](#), we turn to the components of designing the research proposal. [Chapters 5](#) through [10](#) address steps in this process.

Chapter 5. The Introduction

It is important to properly introduce a research study. We provide a model for writing a good scholarly introduction to your proposal. The chapter begins with designing an abstract for a study. This is followed by developing an introduction to include identifying the research problem or issue, framing this problem within the existing literature, pointing out deficiencies in the literature, and targeting the study for an audience. This chapter provides a systematic method for designing a scholarly introduction to a proposal or study.

Chapter 6. The Purpose Statement

At the beginning of research proposals or projects, authors mention the central purpose or intent of the study. This passage is the most important statement in the entire research process, and an entire chapter is devoted to this topic. In this chapter, you learn how to write this statement for quantitative, qualitative, and mixed methods studies, and you will be provided with scripts that help you design and write these statements.

Chapter 7. Research Questions and Hypotheses

The questions and hypotheses addressed by the researcher serve to narrow and focus the purpose of the study. As a major signpost in a project, the set of research questions and hypotheses needs to be written carefully. In this chapter, you will learn how to write both qualitative and quantitative research questions and hypotheses, as well as how to employ both forms in writing mixed methods questions and hypotheses. Numerous examples serve as scripts to illustrate these processes.

Chapter 8. Quantitative Methods

Quantitative methods involve the processes of collecting, analyzing, interpreting, and writing the results of a study. Specific methods exist in both survey and experimental research that relate to identifying a sample and population, specifying the type of design, collecting and analyzing data, presenting the results, making an interpretation, and writing the research in a manner consistent with a survey or experimental study. In this chapter, the reader learns the specific procedures for designing survey or experimental methods that need to go into a research proposal. Checklists provided in the chapter help to ensure that all steps are included.

Chapter 9. Qualitative Methods

Qualitative approaches to data collection, analysis, interpretation, and report writing differ from the traditional, quantitative approaches. Purposeful sampling, collection of open-ended data, analysis of text or images (e.g., pictures), representation of information in figures and tables, and personal interpretation of the findings all inform qualitative methods. This chapter advances steps in designing qualitative procedures into a research proposal, and it also includes a checklist for making sure that you cover important procedures. Ample

illustrations provide examples from narrative studies, phenomenology, grounded theory, ethnography, and case studies.

Chapter 10. Mixed Methods Procedures

Mixed methods involves the collection and “mixing” or integration of both quantitative and qualitative data in a study. It is not enough to only analyze your qualitative and quantitative data. Further analysis consists of integrating the two databases for additional insight into research problems and questions. Mixed methods research has increased in popularity in recent years, and this chapter highlights important developments and provides an introduction to the use of this design. This chapter begins by defining mixed methods research and the core characteristics that describe it. Then the three core designs in mixed methods research—(a) convergent, (b) explanatory sequential, and (c) exploratory sequential—are detailed in terms of their characteristics, data collection and analysis features, and approaches for interpreting and validating the research. Further, these core designs are employed within other designs (e.g., experiments), within theories (e.g., feminist research), and within methodologies (e.g., evaluation procedures). Finally, we discuss the decisions needed to determine which one of the designs would be best for your mixed methods project. We provide examples of the core designs and include a checklist to review to determine whether you incorporated all of the essential steps in your proposal or project.

Designing a study is a difficult and time-consuming process. This book will not necessarily make the process easier or faster, but it can provide specific skills useful in research, knowledge about the steps involved in the process, and a practical guide to composing and writing scholarly research. Before the steps of the process unfold, we recommend that proposal developers think through their approaches to research, conduct literature reviews on their topics, develop an outline of topics to include in a proposal design, and begin anticipating potential ethical issues that may arise in the research. [Part I](#) begins with these topics.

Companion Website

The SAGE edge companion site for *Research Design*, Fifth Edition, is available at

<https://edge.sagepub.com/creswellrd5e>

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Part I 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.

Chapter 1 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 social sciences from the late 19th century up until the mid-20th century. During 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

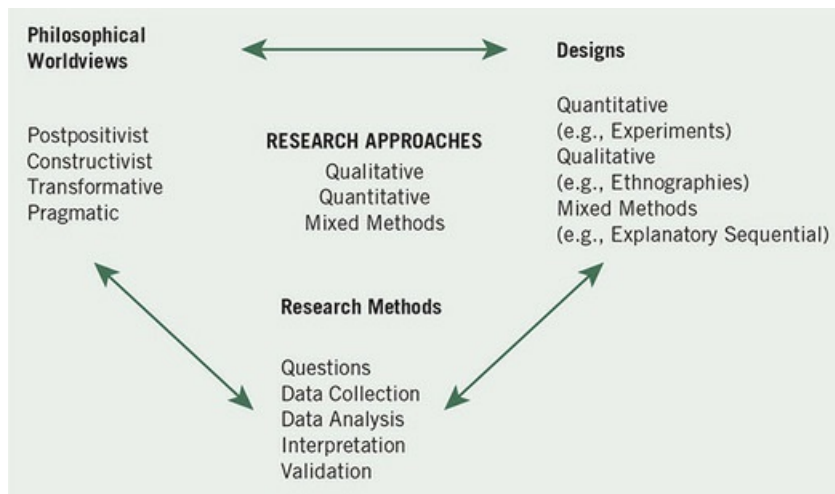
by either the quantitative or qualitative data alone.

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, 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.

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



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 experiences. The types of beliefs held by individual researchers based on these factors will often lead to embracing a strong qualitative, quantitative, or mixed methods 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 postpositivist 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. 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.

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

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.
3. 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.
4. 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.
5. 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.

The Transformative Worldview

Another group of researchers holds to the philosophical assumptions of the transformative approach. This position arose during the 1980s and 1990s from individuals who felt that the postpositivist assumptions imposed structural laws and theories that did not fit marginalized individuals in our society or issues of power and social justice, discrimination, and oppression that needed to be addressed. There is no uniform body of literature characterizing this worldview, but it includes groups of researchers that are critical theorists; participatory action researchers; Marxists; feminists; racial and ethnic minorities; persons with disabilities;

indigenous and postcolonial peoples; and members of the lesbian, gay, bisexual, transsexual, and queer communities. Historically, the transformative writers have drawn on the works of Marx, Adorno, Marcuse, Habermas, and Freire (Neuman, 2009). Fay (1987), Heron and Reason (1997), Kemmis and Wilkinson (1998), Kemmis and McTaggart (2000), and Mertens (2009, 2010) are additional writers to read for this perspective.

In the main, these inquirers felt that the constructivist stance did not go far enough in advocating for an action agenda to help marginalized peoples. A **transformative worldview** holds that research inquiry needs to be intertwined with politics and a political change agenda to confront social oppression at whatever levels it occurs (Mertens, 2010). Thus, the research contains an action agenda for reform that may change lives of the participants, the institutions in which individuals work or live, and the researcher's life. Moreover, specific issues need to be addressed that speak to important social issues of the day, issues such as empowerment, inequality, oppression, domination, suppression, and alienation. The researcher often begins with one of these issues as the focal point of the study. This research also assumes that the inquirer will proceed collaboratively so as to not further marginalize the participants as a result of the inquiry. In this sense, the participants may help design questions, collect data, analyze information, or reap the rewards of the research. Transformative research provides a voice for these participants, raising their consciousness or advancing an agenda for change to improve their lives. It becomes a united voice for reform and change.

This philosophical worldview focuses on the needs of groups and individuals in our society that may be marginalized or disenfranchised. Therefore, theoretical perspectives may be integrated with the philosophical assumptions that construct a picture of the issues being examined, the people to be studied, and the changes that are needed, such as feminist perspectives, racialized discourses, critical theory, queer theory, and disability theory—theoretical lens to be discussed more in [Chapter 3](#).

Although these are diverse groups and our explanations here are generalizations, it is helpful to view the summary by Mertens (2010) of key features of the transformative worldview or paradigm:

- It places central importance on the study of lives and experiences of diverse groups that have traditionally been marginalized. Of special interest for these diverse groups is how their lives have been constrained by oppressors and the strategies that they use to resist, challenge, and subvert these constraints.
- In studying these diverse groups, the research focuses on inequities based on gender, race, ethnicity, disability, sexual orientation, and socioeconomic class that result in asymmetric power relationships.
- The research in the transformative worldview links political and social action to these inequities.
- Transformative research uses a program theory of beliefs about how a program works and why the problems of oppression, domination, and power relationships exist.

The Pragmatic Worldview

Another position about worldviews comes from the pragmatists. Pragmatism derives from the work of Peirce, James, Mead, and Dewey (Cherryholmes, 1992). Other writers include Murphy (1990), Patton (1990), and

Rorty (1990). There are many forms of this philosophy, but for many, pragmatism as a worldview arises out of actions, situations, and consequences rather than antecedent conditions (as in postpositivism). There is a concern with applications—what works—and solutions to problems (Patton, 1990). Instead of focusing on methods, researchers emphasize the research problem and question and use all approaches available to understand the problem (see Rossman & Wilson, 1985). As a philosophical underpinning for mixed methods studies, Morgan (2007), Patton (1990), and Tashakkori and Teddlie (2010) convey its importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem. Using Cherryholmes (1992), Morgan (2007), and our own views, pragmatism provides a philosophical basis for research:

- Pragmatism is not committed to any one system of philosophy and reality. This applies to mixed methods research in that inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research.
- Individual researchers have a freedom of choice. In this way, researchers are free to choose the methods, techniques, and procedures of research that best meet their needs and purposes.
- Pragmatists do not see the world as an absolute unity. In a similar way, mixed methods researchers look to many approaches for collecting and analyzing data rather than subscribing to only one way (e.g., quantitative or qualitative).
- Truth is what works at the time. It is not based in a duality between reality independent of the mind or within the mind. Thus, in mixed methods research, investigators use both quantitative and qualitative data because they work to provide the best understanding of a research problem.
- The pragmatist researchers look to the *what* and *how* to research based on the intended consequences—where they want to go with it. Mixed methods researchers need to establish a purpose for their mixing, a rationale for the reasons why quantitative and qualitative data need to be mixed in the first place.
- Pragmatists agree that research always occurs in social, historical, political, and other contexts. In this way, mixed methods studies may include a postmodern turn, a theoretical lens that is reflective of social justice and political aims.
- Pragmatists have believed in an external world independent of the mind as well as that lodged in the mind. But they believe that we need to stop asking questions about reality and the laws of nature (Cherryholmes, 1992). “They would simply like to change the subject” (Rorty, 1990, p. xiv).
- Thus, for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis.

Research Designs

The researcher not only selects a qualitative, quantitative, or mixed methods study to conduct; the inquirer also decides on a type of study within these three choices. Research designs are types of inquiry within qualitative, quantitative, and mixed methods approaches that provide specific direction for procedures in a research study. Others have called them *strategies of inquiry* (Denzin & Lincoln, 2011). The designs available to the researcher have grown over the years as computer technology has advanced our data analysis and ability to analyze complex models, and as individuals have articulated new procedures for conducting social science research. Select types will be emphasized in the methods of [Chapters 8, 9, and 10](#)—designs that are frequently used in the social sciences. Here we introduce those that are discussed later and that are cited in examples throughout the book. An overview of these designs is shown in [Table 1.2](#).

Quantitative Designs

During the late 19th and throughout the 20th century, strategies of inquiry associated with quantitative research were those that invoked the postpositivist worldview and that originated mainly in psychology. These include *true experiments* and the less rigorous experiments called *quasi-experiments* (see, an original, early treatise on this, Campbell & Stanley, 1963). An additional experimental design is *applied behavioral analysis or single-subject experiments* in which an experimental treatment is administered over time to a single individual or a small number of individuals (Cooper, Heron, & Heward, 2007; Neuman & McCormick, 1995). One type of nonexperimental quantitative research is *causal-comparative research* in which the investigator compares two or more groups in terms of a cause (or independent variable) that has already happened. Another nonexperimental form of research is the *correlational design* in which investigators use the correlational statistic to describe and measure the degree or association (or relationship) between two or more variables or sets of scores (Creswell, 2012). These designs have been elaborated into more complex relationships among variables found in techniques of structural equation modeling, hierarchical linear modeling, and logistic regression. More recently, quantitative strategies have involved complex experiments with many variables and treatments (e.g., factorial designs and repeated measure designs). Designs often employ longitudinal data collection over time to examine the development of ideas and trends. Designs have also included elaborate structural equation models that incorporate causal paths and the identification of the collective strength of multiple variables. Rather than discuss all of these quantitative approaches, we will focus on two designs: surveys and experiments.

Table 1.2 Alternative Research Designs		
Quantitative	Qualitative	Mixed Methods
<ul style="list-style-type: none"> • Experimental designs • Nonexperimental designs, such as surveys • Longitudinal designs 	<ul style="list-style-type: none"> • Narrative research • Phenomenology • Grounded theory • Ethnographies • Case study 	<ul style="list-style-type: none"> • Convergent • Explanatory sequential • Exploratory sequential • Complex designs with embedded core designs

- **Survey research** provides a quantitative or numeric description of trends, attitudes, or opinions of a

population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaires or structured interviews for data collection—with the intent of generalizing from a sample to a population (Fowler, 2008).

- **Experimental research** seeks to determine if a specific treatment influences an outcome. The researcher assesses this by providing a specific treatment to one group and withholding it from another and then determining how both groups scored on an outcome. Experiments include true experiments, with the random assignment of subjects to treatment conditions, and quasi-experiments that use nonrandomized assignments (Keppel, 1991). Included within quasi-experiments are single-subject designs.

Qualitative Designs

In qualitative research, the numbers and types of approaches have also become more clearly visible during the 1990s and into the 21st century. The historic origin for qualitative research comes from anthropology, sociology, the humanities, and evaluation. Books have summarized the various types, and complete procedures are now available on specific qualitative inquiry approaches (Creswell & Poth, 2018). For example, Clandinin and Connelly (2000) constructed a picture of what narrative researchers do. Moustakas (1994) discussed the philosophical tenets and the procedures of the phenomenological method; Charmaz (2006), Corbin and Strauss (2007; 2015), and Strauss and Corbin (1990, 1998) identified the procedures of **grounded theory**. Fetterman (2010) and Wolcott (2008) summarized ethnographic procedures and the many faces and research strategies of **ethnography**, and Stake (1995) and Yin (2009, 2012, 2014) suggested processes involved in case study research. In this book, illustrations are drawn from the following strategies, recognizing that approaches such as participatory action research (Kemmis & McTaggart, 2000), discourse analysis (Cheek, 2004), and others not mentioned are also viable ways to conduct qualitative studies:

- **Narrative research** is a design of inquiry from the humanities in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives (Riessman, 2008). This information is then often retold or restoried by the researcher into a narrative chronology. Often, in the end, the narrative combines views from the participant's life with those of the researcher's life in a collaborative narrative (Clandinin & Connelly, 2000).
- **Phenomenological research** is a design of inquiry coming from philosophy and psychology in which the researcher describes the lived experiences of individuals about a phenomenon as described by participants. This description culminates in the essence of the experiences for several individuals who have all experienced the phenomenon. This design has strong philosophical underpinnings and typically involves conducting interviews (Giorgi, 2009; Moustakas, 1994).
- **Grounded theory** is a design of inquiry from sociology in which the researcher derives a general, abstract theory of a process, action, or interaction grounded in the views of participants. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information (Charmaz, 2006; Corbin & Strauss, 2007, 2015).
- **Ethnography** is a design of inquiry coming from anthropology and sociology in which the researcher studies the shared patterns of behaviors, language, and actions of an intact cultural group in a natural