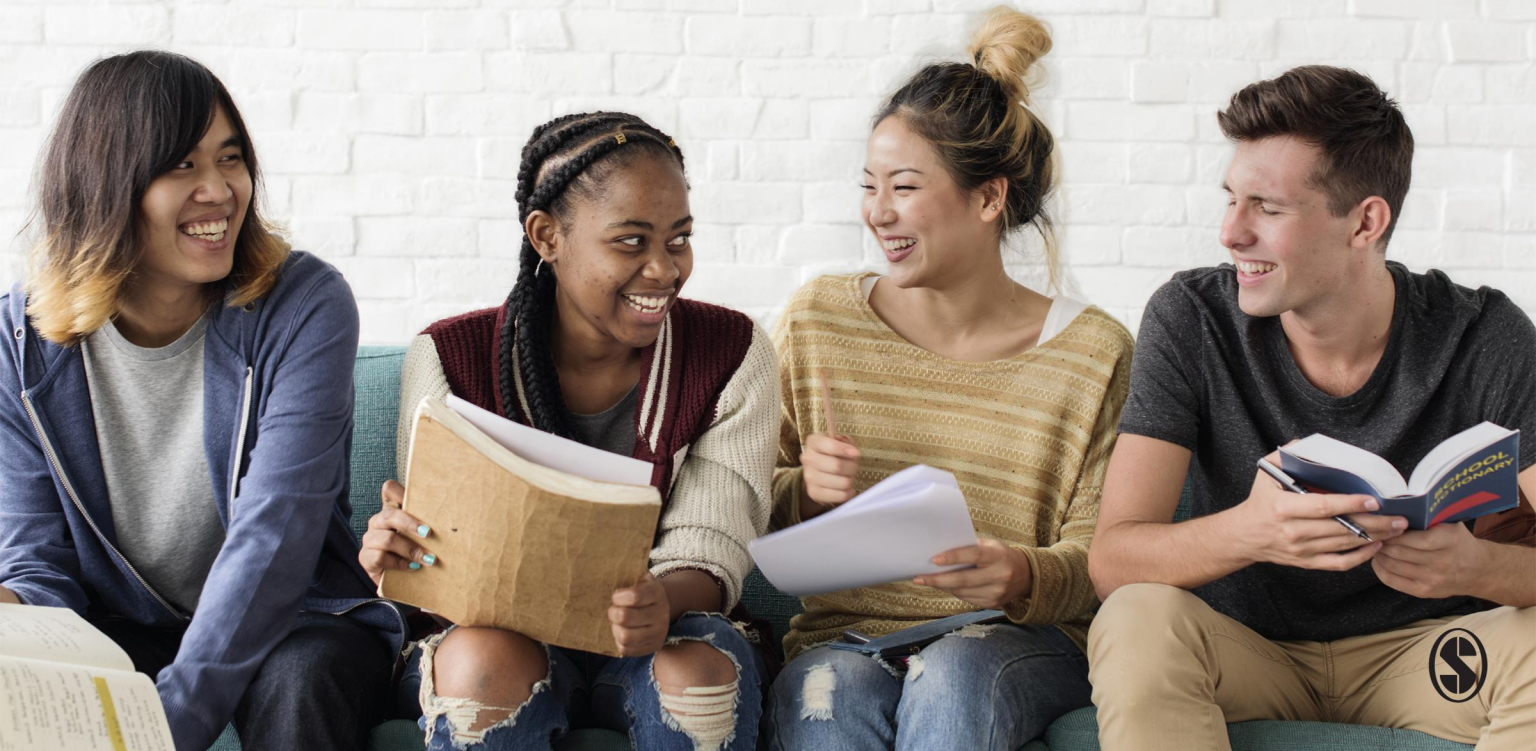
DONNA M. MERTENS

Research and Evaluation in Education and Psychology

5 EDITION

Integrating Diversity With Quantitative, Qualitative, and Mixed Methods



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Donna M. Mertens
Gallaudet University

SAGE

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SAGE Publications Ltd.
1 Oliver's Yard
55 City Road
London, EC1Y 1SP
United Kingdom

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B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road, New Delhi 110 044
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18 Cross Street #10-10/11/12
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Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Names: Mertens, Donna M., author.

Title: Research and evaluation in education and psychology : integrating diversity with quantitative, qualitative, and mixed methods / Donna M. Mertens, Gallaudet University.

Description: Fifth Edition. | Los Angeles : SAGE, [2019] | Includes bibliographical references and index.

Identifiers: LCCN 2018049211 | ISBN 9781544333762 (Paperback : alk. paper)

Subjects: LCSH: Education—Research—Methodology. | Psychology—Research—Methodology.

Classification: LCC LB1028 .M3964 2019 | DDC 370.72—dc23

LC record available at https://lccn.loc.gov/2018049211

Acquisitions Editor: Leah Fargotstein
Editorial Assistant: Claire Laminen
Content Development Editor: Chelsea Neve
Production Editor: Myleen Medina
Copy Editor: Karin Rathert
Typesetter: Hurix Digital
Proofreader: Jeff Bryant
Indexer: Jean Casalengo
Cover Designer: Dally Verghese
Marketing Manager: Shari Countryman

This book is printed on acid-free paper.

19 20 21 22 23 10 9 8 7 6 5 4 3 2 1

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PREFACE

When I studied about research in my graduate classes many years ago, only one approach to research was taught—a quantitative approach that emphasized closed-ended surveys and experimental designs. My basic statistics courses were taught in the agriculture department, with no emphasis on the messiness that enters into research when you study people compared to animals or types of fertilizers.

As I began conducting research studies myself in the messier world of people and educational and psychological phenomena, I found that a piece of the puzzle was missing. I felt compelled to study the principles of qualitative approaches to research to get a more complete understanding of the phenomena that I was researching. Later in my career, I began teaching at Gallaudet University and doing research with the Deaf community. At this time, I began to search for approaches to research that could more accurately capture the experiences of people who were not exactly in the mainstream of society. Advances in the integration of quantitative and qualitative approaches caught me up in the mixed methods research community.

The idea for a different way of looking at research actually emanated from my work as a teacher of educational psychology. I came across Carol Gilligan's (1982) book *In a Different Voice,* in which she made the point that Kohlberg's theory of moral development had been developed based on data collected only from boys and young men. To further our understanding of the process of moral development, Gilligan explored responses to moral dilemmas by a group of females. Thus, Gilligan's work planted the seed that research needed to include people of both genders and that perspectives might be different for males and females on important, fundamental developmental issues.

Reading Gilligan's work led me to seek out other researchers who approached their work from a feminist perspective (e.g., Reinharz, 1992). I was especially interested in exploring the question, what does it mean to conduct research from a feminist perspective? Having worked with Deaf People for many years, I could immediately see many parallels between the feminists' statements concerning discrimination and oppression based on gender and the experiences of people with disabilities. Other important sources of information for me were the writings of racial and ethnic minorities on more culturally appropriate approaches to research (e.g., Stanfield & Dennis, 1993).

As I struggled to put the pieces of the puzzle together, I found the organizing framework that I was seeking in the work of Patti Lather (1992) and Guba and Lincoln (1989) in their discussion of paradigms of research. They make clear that researchers' views of the world (i.e., their chosen paradigms) underlie their choices of research approaches. It is not simply a choice of method: Should I use quantitative or qualitative approaches to research, or should I mix the methods? Researchers make methodological choices based on their assumptions about reality and the nature of knowledge that are either implicitly present or explicitly acknowledged.

I am gratified to see that in the period of time since the first edition and the fifth edition of this text that there has been an amazing growth in the recognition of and discussions about diverse paradigms, theories, methodologies, and voices represented in the research and evaluation communities. In Chapter 1, I address some of the developments in the field in terms of publications and actions taken by professional associations that have made issues of social justice and cultural relevance more visible.

The goal of this book is to guide researchers in identifying their own assumptions and examining for themselves the implications of choices about research methodology based on those assumptions. It is my position that the newer paradigms add to our understanding of how to conduct more valid research. They should not be viewed as replacements for the older approaches to research. As a research community (whether we create or use research), we should be constantly building on the information we have from the past. If we know some things about how to conduct surveys from past experience, it is not wise to throw that out just because those learnings came from older paradigms of research. If we can learn about how to conduct better surveys from feminists, racial and ethnic minorities, people with disabilities, and their advocates, then we should listen to what they are saying. *I believe that knowledge is cumulative and we learn by listening.*

ORGANIZATION OF THIS BOOK

This book is organized according to the logic of conducting a research study. Researchers must first examine their underlying assumptions about the nature of reality and knowledge to make sensible decisions about all of the other steps in the research process. Chapter 1 contains an explanation of the major research paradigms and their associated assumptions. Students who understand the research paradigms and their assumptions will not only be prepared to make methodological decisions about their own research, they will also be prepared to engage meaningfully in the debates in the research community about the most appropriate ways to approach the business of research. In addition, the topic of ethics is discussed in Chapter 1 as a fundamental principle that researchers must keep in the front of their minds as they begin to walk down the research road. Ethical issues are integrated into all of the chapters because they are of central concern throughout the research process.

Chapter 2 provides an overview of program evaluation as a special context for systematic inquiry. Its placement here is meant to underscore the transferability of social science research methods to evaluation, while still recognizing the uniqueness of the context within which evaluation is conducted. Sample studies throughout the book reflect both research and evaluation approaches.

In Chapter 3, the nuts and bolts of conducting a literature review and formulating the focus of the problem are explained. This chapter has value for all students of research, whether they are preparing to conduct their own research or they view themselves as consumers of research. Even students whose current self-perceptions are that they will use only the research that others produce may find that in future years they will be involved in a research team. This text will prepare them to participate in a meaningful way on such a team. If you are preparing a research proposal for your thesis or dissertation, you will be able to start the preparation of the proposal using the information in this chapter.

A variety of approaches to systematic inquiry are explained in Chapters 4 through 10, including experimental and quasi-experimental research, causal comparative and correlational research, survey methods, single-case research, qualitative methods, history and narrative study of lives, and mixed methods research. Although the book is somewhat oriented to a step-by-step process of how to do research, each chapter also contains perspectives from the four major paradigms—postpositivist, constructivist, pragmatic, and transformative—along with a discussion of issues that are controversial, depending on one's worldview. After reading these chapters, you will be prepared to develop the design for your research proposal.

The final three chapters help the student complete the research process. In Chapter 11, issues of the definition and selection of samples are explained, along with specific ethical concerns when working with human beings in a research context. Quantitative, qualitative, and mixed methods for data collection strategies are discussed in Chapter 12, along with standards for judging the quality of the data collected from a variety of perspectives. In Chapter 13, quantitative, qualitative, and mixed methods choices for data analysis are presented, and issues related to data interpretation and reporting of research results are discussed. In that chapter, students are also instructed in how to write a research plan, including a management plan and a budget for research that they might propose for thesis or dissertation requirements or for external funding. These final three chapter prepare you to complete your research proposal, adding sections on sampling, data collection, and analysis.

PEDAGOGICAL FEATURES

Many pedagogical features are to be found in this text. First, at the beginning of each chapter, students are given a list of the main ideas contained in that chapter. This can be used as an advance organizer for the students and as an outline for students to keep themselves situated as they move through the complex process of learning about research. There is a summary presented at the end of each chapter to recapitulate the major points.

Each chapter contains many electronic resources that are available for researchers and evaluators to use from the Internet. These are available at a website especially constructed for this text—**https:/study.sagepub.com/mertens5e.** In many chapters, specific research studies are summarized, providing a realistic context for the discussion of the points throughout the chapter. Both full-length research studies and Web-based resources are mentioned in each chapter. In addition, many chapters contain step-by-step processes for conducting a specific part of the research process. In every chapter, perspectives from the major paradigms are

included as they relate to that chapter's topic, along with discussion of controversies that exist within the broader research community.

Questions for critical analysis are included in each chapter that students can apply in the critical analysis of extant research studies as well as in the critical evaluation of their own planned research processes. Each chapter contains opportunities for "Extending Your Thinking" through questions for discussion and activities for application, thus providing students with an opportunity to further their understandings of the concepts presented in that chapter.

Finally, an outline for the preparation of a research proposal is contained in the appendix and can be used by those students who will be preparing a research proposal to meet course requirements, for the purpose of completing a thesis or dissertation, or for requesting funds to support research.

CHANGES IN THE FIFTH EDITION

This edition expands information about international development, the digital presence in research, the importance of addressing intersectionality, qualitative methods, and mixed methods approaches, as well as on sampling, data collection, and data analysis. The addition of many new electronic resources in the chapters is supported by the Web page (**https:/study.sagepub.com/mertens5e**) that gives the readers access to full text versions of many studies that are mentioned in the book as well as to Web-based resources that appear in each chapter. The American Psychological Association's (Appelbaum et al., 2018; Levitt et al., 2018) guidance on conducting and publishing quantitative, qualitative, single case, and mixed methods studies features prominently throughout the text. The digital world is pervasively present throughout the text and appears at every stage of the research process. Examples of studies from researchers and evaluators have been updated; many now include the important concept of intersectionality in their approaches.

This book is designed for the advanced undergraduate student, master's students, and beginning doctoral students in psychology, education, and educational psychology. It can be used by those who will plan and conduct research as a well as by those who see their main goal as learning to locate, read, and critically evaluate research. Students will use the book differently depending on their ultimate goal—to be an independent producer of research, a member of a research team, or a consumer of research. For students in the latter two categories, this book is quite comprehensive and could be used as a stand-alone text.

For advanced students who are preparing to conduct independent research, additional course work and resources are necessary. This book provides the foundation for making decisions about what additional study would be necessary. For example, students may need additional coursework in statistics or psychometrics because these topics are discussed at a conceptual level rather than in terms of "how to do it." Many resources are updated and expanded to facilitate student access to more in-depth information about the various topics in research and evaluation.

The fifth edition is updated to explicitly align with the accreditation requirements of the American Psychological Association and the National Council of Accreditation of Teacher Education by increasing the focus on issues related to cultural competency. I increased attention to research that focuses on finding appropriate solutions with communities rather than research that only identifies problems. Additional coverage is given to the debates and controversies in educational and psychological research, such as objectivity and causality, quality of research across paradigms, and the need to be and strategies for being more inclusive. I provide information from the American Psychological Association's multicultural guidelines and those for inclusion of persons with disabilities and members of the LGBTQ communities.

The history of evaluation has been clarified by using four branches of evaluation that align with four research paradigms: methods, use, values, and social justice. The updated version of the Program Evaluation Standards is presented as an ethical framework for evaluators. Resources for evaluators have been updated and expanded to include more electronically available information. The approaches to focusing a research study have been expanded to include more community-based strategies. Examples have been added that illustrate literature review in the areas of arts-based education, persons with disabilities, achievement of African American males, and effectiveness of therapy for children and adolescents. Additional information is provided about theories of causality and discontinuity regression as a design. More examples of studies have been added that deal with psychotherapy, cyberbullying, environmental education, and sexual harassment.

The fifth edition discusses the historical change in the American Psychological Association with regard to the use of qualitative methods in research. It also includes updated information about mixed methods and integrates more mixed methods into chapters on sampling, data collection, and data analysis. Increased attention is given to theoretical frameworks for developing research questions, conducting research, and analyzing data, including culturally responsive, feminist, disability rights, critical race and LatCrit theories, and Indigenous theories. Uses of technology are incorporated into all facets of research, including data collection via focus groups, reporting data via the Internet, and implications for community use of data. Universal design is included as a mechanism to support inclusion of marginalized communities in data collection. Publication recommendations for research are derived from the sixth edition of the American Psychological Association (2009) guide for publication.

COMPANION WEBSITE

Research and Evaluation in Education and Psychology, Fifth Edition, is accompanied by a companion website.

Visit study.sagepub.com/mertens5e for free student and instructor resources.

Password-protected **Instructor Resources** include the following:

- Editable, chapter-specific Microsoft® **PowerPoint® slides** offer flexibility in creating course lectures. Slides highlight essential content, features, and artwork from the book.
- **Lecture Notes** summarize key concepts from each chapter to help with preparation for lecture and class discussions.
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- **Tables and figures** from the book available for download and use in your course.

The open-access **Student Study Site** includes the following:

- Access to certain full-text **SAGE journal articles** carefully selected by the author to support and expand upon chapter concepts.

ACKNOWLEDGMENTS

Many people helped me through the years that this book has been in process. I want to thank the members of my professional organizations, especially Amy Wilson, Katrina Bledsoe, Sharlene Hesse-Biber, Fiona Cram, Katarina Pipi, and Bagele Chilisa because they have inspired me through their own work in creating more inclusive and transformative models of research.

My thanks go also to the many graduate students and faculty across the globe who attended my classes and workshops and challenged, encouraged, and inspired me to produce a textbook that contains representation of the voices of struggling groups.

For their careful and thorough reviews, I wish to thank the following:

Christopher Benedetti, Plymouth State University

Pamela J. Bretschneider, Framingham State University

Christine Chasek, University of Nebraska at Kearney

Joshua Childs, University of Texas at Austin

Joshua C. Elliot, Fairfield University

Audrey Falk, Merrimack College

Angellar Manguvo, University of Missouri—Kansas City

Margarita Pivovarova, Arizona State University

Mark Taylor, American International College

I want to continue to thank C. Deborah Laughton at Guilford Press, who guided me through the first edition with her belief in me as a professional and a friend. Special thanks to Vicki Knight and Helen Salmon, the SAGE acquisitions editors, who worked with me through the preparation of the third and fourth editions, offering good humor—often at a good meal that we shared. I am also pleased to thank Leah Fargotstein, who is the Sage editor for the fifth edition. I also want to thank the following: Chelsea Neve, associate editor; Claire Laminen, editorial assistant; Nicole Elliott, books marketing manager; Eric Garner, production editor supervisor; Myleen Medina, project editor; and Karin Rathert, copy editor.

ABOUT THE AUTHOR

Donna M. Mertens is Professor Emeritus, Department of Education, at Gallaudet University. She taught research methods and program evaluation to Deaf and hearing students at the MA and PhD levels for over 30 years. She now teaches courses and professional development workshops around the world.

She conducts research and evaluation studies on such topics as improvement of special education services in international settings, planning for the inclusion of students with disabilities in neighborhood schools, enhancing the educational experiences of students with disabilities, preventing sexual abuse in residential schools for Deaf students, improving access to the court systems for Deaf and hard-of-hearing people, and improving the preparation of teachers of the Deaf through appropriate use of instructional technology. Her research focuses on improving methods of inquiry by integrating the perspectives of those who have experienced oppression in our society. She draws on the writings of feminists, racial and ethnic minorities, and people with disabilities as well as Indigenous peoples who have addressed the issues of power and oppression and their implications for research methodology.

Dr. Mertens has made numerous presentations at the meetings of the American Educational Research Association, American Evaluation Association, Australasian Evaluation Society, Association for College Educators of the Deaf and Hard of Hearing, International Sociological Association, Mixed Methods International Research Association, American Psychological Association, African Evaluation Association, Canadian Evaluation Society, Visitors Studies Association, and other organizations that explore these themes. She served as president and board member of the American Evaluation Association from 1997 to 2002 and as a member of the Board of Trustees for the International Organization for Cooperation in Evaluation from 2002 through 2003. She served as editor for the *Journal of Mixed Methods Research* from 2009 through 2014. She was a founding Board member of the Mixed Methods International Research Association.

Her publications include four edited volumes, *Indigenous Pathways to Social Research* (coedited with Fiona Cram and Bagele Chilisa, 2013), *Handbook of Social Research Ethics* (coedited with Pauline Ginsberg, 2009), *Creative Ideas for Teaching Evaluation* (1989), and *Research and Inequality* (coedited with Carole Truman and Beth Humphries, 2000), and

several authored books, including *Mixed Methods Design in Evaluation* (2018), *Program Evaluation: A Comprehensive Guide* (2nd ed. with Amy Wilson, 2019), *Transformative Research and Evaluation* (2009), *Research and Evaluation Methods in Special Education* (coauthored with John McLaughlin, 2004), and *Parents and Their Deaf Children* (coauthored with Kay Meadow-Orlans and Marilyn Sass Lehrer, 2003). She also publishes many chapters and articles in edited volumes, encyclopedias, handbooks, and journals, such as *Journal of Mixed Methods Research, Qualitative Social Work, Eye on Psi Chi, Educational Researcher, International Journal of Multiple Methods Research, New Directions for Program Evaluation, American Journal of Evaluation, American Annals of the Deaf, Studies in Educational Evaluation*, and *Educational Evaluation and Policy Analysis*.

CHAPTER 1

An Introduction to Research and Ethical Practice

In the late 1800s, the prevailing myth held that men were more intelligent than women. Mary Calkins, a psychologist, conducted experiments at Wellesley College in 1887 that demonstrated that women are just as intelligent as men.

—Furumoto, 1980

Compelling pedagogical interests require that each program prepare graduates to navigate cultural and individual differences in research and practice, including those that may produce value conflicts or other tensions arising from the intersection of different areas of diversity.

—American Psychological Association Commission on Accreditation, 2016, p. 8

What clinical experiences have enhanced completer's understanding of diversity and equity issues and their readiness to use that understanding in teaching situations? What applications of technology have prepared completers for their responsibilities on the job?

—Council for the Accreditation of Educator Preparation, 2018, p. 37

How can school counselors help students in low income schools get good grades?

—Williams, Steen, Albert, Dely, Jacobs, Nagel, and Irick, 2018, p. 156

The ways of Indigenous research are as old as the hills and the valleys, the mountains and the seas, and the desert and the lakes that Indigenous people bind themselves to as their places of belonging. It is not that Indigenous peoples are anti-research . . . the "bad name" that research has within Indigenous communities is not about the notion of research itself; rather it is about how that research has been practiced, by whom, and for what purpose that has created ill-feeling.

—Cram, Chilisa, and Mertens, 2013, p. 11

WHY BOTHER?

Life is complex; the world is not perfect. Many different kinds of people live on this planet, and educators and psychologists do not know the best ways to educate or counsel many people who have a history of poor achievement in school and who suffer a poor quality of life in terms of illiteracy, physical and mental illness, low pay, poor working conditions, high rates of unemployment, and other social and psychological disadvantages. The brief descriptions presented at the beginning of this chapter illustrate the importance of attending to all learners and clients with respect to cultural responsiveness and the complexity of educational and psychological challenges that confront researchers in our society. They highlight the importance that accreditation organizations place on developing research skills that equip educators and psychologists to address these challenges. They also give us pause to think about the role that research can play in providing insights into how research can contribute to changing the life experiences of those who suffer discrimination and oppression.

This is not meant to imply that research in and of itself can solve all the world's problems, nor is it meant to suggest that all research must be oriented toward social action. There are methods for designing research that make it more likely to be useful to educators, psychologists, counselors, administrators, policymakers, parents, and students. Such applied social research is the focus of this text. There are also research studies (termed *basic research*) that do not attempt to have immediate application in a social setting. Basic research is not the focus of this text despite its potential for contribution to social transformation.

WHAT IS RESEARCH?

Research is one of many different ways of knowing or understanding. It is different from other ways of knowing, such as insight, divine inspiration, and acceptance of authoritative dictates, in that it is a process of *systematic inquiry* that is designed to collect, analyze, interpret, and use *data.* Research is conducted for a variety of reasons, including to understand, describe, predict, or control an educational or psychological phenomenon or to empower individuals in such contexts.

The exact nature of the definition of research is influenced by the researcher's theoretical framework and by the importance that the researcher places on distinguishing research from other activities or different types of research from each other. For example, many students go to the Internet or the library and look up facts from a variety of sources and say that they are doing a research paper. Some journalists follow a similar search strategy and often include interviews with people close to the action that is the focus of a news report. The focus of this text is NOT on that type of "research." Rather, this text focuses on empirical research that is characterized as building on existing knowledge about a phenomenon. This base of knowledge (whether derived from scholarly literature or community interaction) is used to develop a research focus and questions and/or hypotheses as well as systematic collection of data from selected participants. The data are analyzed, interpreted, and reported. Such empirical research is found in scholarly journals, although this is not the only source where empirical research can be found.

EXTENDING YOUR THINKING

Definition of Research

One definition of research is provided in this text. Think about your own understanding of what it means to do research. Explore other definitions of research in other texts or through the Internet. Modify the definition provided or create a new definition that reflects your understanding of the meaning of the term *research*.

Two parallel genres of inquiry in the educational and psychological communities have grown side by side: research and program evaluation. At times, these two genres intersect; at other times, they follow very separate trajectories. The relationship between research and evaluation is not simplistic. Much of evaluation can look remarkably like research and vice versa. Both make use of systematic inquiry methods to collect, analyze, interpret, and use data to understand, describe, predict, control, or empower. Evaluation is more typically associated with the need for information for decision-making in a specific setting, and research is more typically associated with generating new knowledge that can be transferred to other settings. In practice, a large area of overlap exists between evaluation and research. Hence, what students learn in their study of research has application in their understanding of evaluation as well. The contextual factors and approaches unique to evaluation are described in the next chapter so that readers who are interested in evaluation can use the methodological guidance in subsequent chapters to plan an evaluation study.

RESEARCH TERMINOLOGY

Like most disciplines, researchers have their own jargon that has meanings different from everyday uses of the same terms. If you have studied research before, you might be familiar with these terms. However, it is almost impossible to talk about research without having at

BOX 1.1 Research Terminology: Definitions and Examples

1. *Quantitative/qualitative/mixed methods:* The description of these methods is the heart of this entire text. In quite simplistic terms, quantitative researchers collect numerical data; qualitative researchers collect words, pictures, and artifacts. Mixed methods researchers collect both types of data.
2. *Subject or participant or stakeholder:* The individual you are studying is the *subject* or *participant;* this is the person from whom you collect data. The term *subject* was used more frequently in the past and can still be seen in some journals. More recently, the term *participant* is used in recognition of the active role that human beings play in the research process as contributing participants. Hence, this is the term that is generally used in this text. Often, the

(*Continued*)

(Continued)

participant in educational and psychological research is a student, client, teacher, administrator, or psychologist, but it could also be an animal or a textbook. For example, in Christodoulou et al.'s (2017) study of the effects of a summer reading program, the participants were 47 students, aged 6 through 9, who had been diagnosed with a learning disability. NOTE: *Stakeholder* is a term that is sometimes used (more frequently in program evaluation) to indicate members of the community who have a "stake in the outcomes of the research." Stakeholder is usually more inclusive than the terms subject or participant because it can include those from whom data are collected as well as administrators, staff, and others in the community who will be affected by the results of the inquiry.

3. *Independent variable and predictor variable:* The independent and predictor variables are the variables on which the groups in your research study differ, either because you have exposed them to different treatments (independent variable) or because of some inherent characteristics of the groups (predictor variable). When the researcher deliberately manipulates a treatment (e.g., introduces literacy training for one group but not the other), the treatment is called the *independent variable.* Common independent variables in education and psychology include variations in methods of teaching or therapy. Christodoulou et al. (2017) had an independent variable that was the Seeing Stars reading program. If the researcher is interested in the effect of differences of an inherent characteristic, the variable is more frequently called a *predictor variable.* For example, in studies of gender differences, gender is the predictor variable.
4. *Dependent variable and criterion variable:* The dependent or criterion variable is the variable that the researcher is interested in measuring to determine how it is different for groups with different experiences (dependent) or characteristics (criterion). The *dependent variable* gets its name because it depends on what the researcher does with the independent variable. The researcher manipulates an independent variable (treatment) and exposes groups to differing amounts or types of it and then measures a dependent variable to see if it is different for the different groups. For example, in the Christodoulou et al. (2017) study, one dependent variable was timed-reading ability as measured by the Test of Word Reading Efficiency–2. When working with a predictor variable (inherent characteristic or nonmanipulated variable), the measurement of "effect" is called a *criterion variable.* Common dependent or criterion variables in education and psychology include academic achievement, social skills, personality measures, and income after leaving school.
5. *Experimental and control groups:* In certain types of research, the researcher can divide the participants into two or more groups to test the effect of a specific treatment (independent variable). For example, a researcher might want to test the effect of providing social skills training to students with disabilities by comparing outcomes for students who receive such training with those who do not. The group that receives the training is called the *experimental group.* The comparison group that does not receive the training is called the *control group.* In some research studies, participants are randomly assigned to conditions—that is, they have an equal and independent chance of being assigned to either the experimental or the control group. Christodoulou and colleagues (2017) studied the effect of a summer reading program for students with a learning disability. Based on random assignment, the students who participated in the summer reading program were the experimental group; the students placed on a wait list were the control group. A researcher can also study the effect of a treatment without manipulating it or comparing groups who do and do not receive it. This is commonly done in qualitative and descriptive research studies in which researchers and evaluators theorize the conditions/interventions necessary for change to occur and then collect data to determine the extent to which that change did occur (Gates & Dyson, 2017).
6. *Population and sample:* The *population* is the group to whom you want to apply your results. The *sample* is the group that you have chosen from your population from which to collect data. For example, researchers might have access to 3,000 students. Rather than collect data from all 3,000 students, they might choose 300 students to include in their study (10% sample).
7. *Generalizability and transferability: Generalizability* refers to the researcher's ability to generalize the results from the sample to the population from which it was drawn. The ability to generalize results depends on how representative

the sample is of the population. The degree of generalizability can be discussed in statistical terms, depending on the type of sampling strategy that the researcher uses. For example, the researchers who select the 300 students might want to generalize their results to the 3,000 students in the population. In qualitative research, the researcher emphasizes the total context in which the research takes place to enable readers to make judgments as to the *transferability* of the study's results to their own situations.

8. *Statistically significant:* Statistical significance is important in studies in which comparisons between groups or estimations of sizes of relationships between variables are made. If groups are compared on a dependent variable (e.g., social adjustment or literacy skills), a test of statistical significance can be used to determine if the observed difference between the groups is too large to occur plausibly as a result of chance alone. On the basis of the laws of probability, a difference that is too large to attribute to chance is called *statistically significant.* Researchers in education and psychology will sometimes say that their results are statistically significant at the 0.05 or 0.01 level. These levels refer to the researchers' confidence that similar results would probably be obtained if the study were repeated using other samples drawn from the same population.
9. *Extraneous/lurking variables (also known as moderating or intervening variables):* Researchers are typically very interested in the effect of their independent (or predictor) variables on the dependent (or criterion) variables. But social phenomena are complex and are influenced by many variables other than those of central interest to the researchers. These other variables that can influence the effect of the independent or predictor variables are called *extraneous variables.* For example, a researcher might be very interested in testing the effectiveness of a new therapeutic or teaching approach. However, the participants might have varying degrees of enthusiasm for the different treatments. The counselors or teachers might be strongly wedded to the traditional approach, or they might be intrigued by the new ideas represented in your experimental treatment. Thus, it may be the extraneous variable of their enthusiasm that determines which approach produces the more desirable outcome rather than the approach itself. Other common extraneous variables can be associated with culture, gender, disability, ability, and ethnicity differences between groups.
10. *Community-based participatory research:* Community-based participatory research typically means that the research involves community members and researchers in a partnership in which they serve as members of a research team, contributing to the design and management of the research. The goal is to work toward community change through cycles of action and reflection (Mullett, 2015). There are different labels that are used to describe this approach to research, including participatory action research, cooperative or collaborative research, or simply action research.

least a rudimentary understanding of these terms. Therefore, if you are new to the researcher's world, you should stop and review the terms and definitions presented in Box 1.1. Make sure you mark this box in your textbook so you can refer to these definitions because these terms appear often in the following chapters.

EXTENDING YOUR THINKING

Research Terminology

For each concept listed in Box 1.1, provide a definition in your own words and an example from a research study.

APPROACH TAKEN IN THIS BOOK

The main focus of this text is to examine, from a variety of philosophical and theoretical perspectives, the process of systematic inquiry that constitutes research and evaluation in education and psychology. The typical process for planning and conducting a research or evaluation study is displayed in Box 1.2. This process is rarely as linear as this figure suggests; it can be very iterative in nature. Although these steps are used to organize the information in this text, in actual practice, the researcher may take one step forward, three steps back, and then jump to Step 4, only to find it necessary to revisit Step 2.

In fact, the nonlinearity of planning and conducting research suggests that readers may choose to use this book in a nonlinear fashion. The first three chapters do provide an overview of the nature of research and evaluation and how to begin identifying a research topic. It would seem prudent, therefore, to begin with those chapters (although readers may choose to skip the chapter on evaluation if that is not included in their course syllabus). If readers have a goal of designing a research proposal, they might start in the appendix to read about how to develop a research proposal and use that as a guide to deciding how to navigate through the rest of the text.

After that, readers might choose to read any of the subsequent chapters on specific research approaches (e.g., experimental design) and then complete their understanding of the process for that approach by reading the last three chapters on sampling, data collection and analysis, and reporting. Readers could then return to earlier chapters to learn about other approaches to research and build on what they learned in the first go-round with the text. Alternatively, readers who have a strong feeling that a specific research strategy is of interest to them could start with the chapter on that approach (e.g., survey research) and then jump to the last three chapters of the book.

Some research methods textbooks address quantitative research methods (research that measures variables in a quantifiable way) *or* qualitative research methods (research that captures holistic pictures using words). (These definitions are overly simplistic; they are expanded

BOX 1.2 Steps in the Research/Evaluation Process

Step 1: Identify your own worldview and situate your work as research or evaluation (Chapters 1 and 2)

Step 2: Establish the focus of the research (Chapters 1–3)

Step 3: Literature review; research questions (Chapter 3)

Step 4: Identify design—quantitative, qualitative, or mixed (Chapters 4–10)

Step 5: Identify and select sources of data (sampling) (Chapter 11)

Step 6: Identify and select data collection methods and instruments (Chapter 12)

Step 7: Data analysis, reporting, and utilization (Chapter 13)

Step 8: Identify future directions (Chapter 13)

in later chapters.) An increasing number of books and journals have begun to focus on mixed methods research. In this book, I make the assumption that readers need to understand both quantitative and qualitative approaches to research before they move to mixed methods. Several of the sample studies used throughout the text use mixed methods and there is a separate chapter focused specifically on this approach.

This text sets the research methods within four major paradigms (ways of viewing the world), along with their respective philosophical assumptions. Two of these paradigms—postpositivist and constructivist—are commonly included in research methods texts. The transformative paradigm is frequently recognized in research methods texts (e.g., Creswell, 2009; Greene, 2007; Mertens, 2009). The pragmatic paradigm has emerged as one of the underlying philosophical frameworks for some advocates of mixed methods research (Morgan, 2007; Teddlie & Tashakkori, 2009). These four paradigms are explained in the next section on the history of research.

Why get tangled up in philosophy, theories, and politics? Why not just explain the methods? *Because doing so is very important.* It is true that there are a variety of viewpoints about the importance of linking methodological choices to philosophical paradigms, and leaders in the field do not agree about the need to acknowledge an underlying paradigm, nor do they agree on the role that such paradigms serve in the research process. The contrasting viewpoints with regard to the place of paradigms in the research design community range from Michael Patton's (2008) position that they are unnecessary and possibly handicapping to Thomas Schwandt's (2000) position that they are inescapable. See their comments below:

> My practical (and controversial) view is that one can learn to be a good interviewer or observer, and learn to make sense of the resulting data, without first engaging in deep epistemological reflection and philosophical study. Such reflection and study can be so inclined, but it is not a prerequisite for fieldwork. Indeed, it can be a hindrance. (Patton, 2008, p. 72)

> The practice of social inquiry cannot be adequately defined as an atheoretical making that requires only methodological prowess. . . . As one engages in the "practical" activities of generating and interpreting data to answer questions about the meaning of what others are doing and saying and then transforming that understanding into public knowledge, one inevitably takes up "theoretical" concerns about what constitutes knowledge and how it is to be justified, about the nature and aim of social theorizing, and so forth. In sum, acting and thinking, practice and theory, are linked in a continuous process of critical reflection and transformation. (Schwandt, 2000, pp. 190–191)

Ladson-Billings (Ladson-Billings & Donnor, 2005) takes an even stronger stance than Schwandt in asserting that the choice of a paradigm (and its associated epistemology or systems of knowing) represents a choice between hegemony and liberation. She recommends that the academy go beyond transformation to reconstruction, meaning that teaching, service, research, and scholarship would be equally valued and used in the service of furthering intellectual enrichment, social justice, social betterment, and equity.

In the spirit of full disclosure of values held by researchers, it is my position as author of this text that a researcher's philosophical orientation has implications for every decision made in the research process, including the choice of method. I agree with Shadish (1998) when he argued that many of our fundamental differences in research and evaluation are not really about which method is best; rather, they are "about what assumptions we make when we construct knowledge, about the nature of many fundamental concepts that we use in our work like causation, generalization, and truth" (p. 3). It is true that many researchers proceed without an understanding of their paradigm or its associated philosophical assumptions. However, working without an awareness of our underlying philosophical assumptions does not mean that we do not have such assumptions, only that we are conducting research that rests on unexamined and unrecognized assumptions. Therefore, to plan and conduct your own research, read and critique the research of others, and join in the philosophical, theoretical, and methodological debates in the research community, you need to understand the prevailing paradigms, with their underlying philosophical assumptions.

MAJOR PARADIGMS IN RESEARCH: A BRIEF HISTORY OF RESEARCH

A *paradigm* is a way of looking at the world. It is composed of certain philosophical assumptions that guide and direct thinking and action. Trying to categorize all educational and psychological research into a few paradigms is a complex and, perhaps, impossible task. Table 1.1 displays four of the major paradigms, along with a list of the variety of terms used to describe each. I provide you with the alternative labels listed in Table 1.1 because you will find different labels used in different texts. For example, some authors use the label qualitative rather than constructivist for that paradigm; however, qualitative is a type of methodology, not a paradigm.

The four paradigms that appear in this book are based on an adaptation and extension of paradigms discussed by Lather (1992) and Guba and Lincoln (as depicted in their writings that span from 1994 to 2005). I adopted their use of the postpositivist and constructivist for the first two paradigms. In contrast to Guba and Lincoln's (2005) choice of "critical theory et al." to label a third paradigm, I chose to label this transformative. Theories provide frameworks for thinking about the interrelationships of constructs and are more limited in scope than paradigms; hence, critical theory is one theory that is appropriately included under the umbrella of the transformative paradigm. In the first edition of this text, I labeled the third column "emancipatory" because Lather labeled her third paradigm as emancipatory. However, I changed it in the second edition of this book (Mertens, 2005) to transformative to emphasize that the agency for change rests in the persons in the community working side by side with the researcher toward the goal of social transformation. Lather placed poststructuralism and postmodernism in yet a fifth paradigm, which she labeled *deconstructivist.* (See Box 1.3 for a brief explanation of postmodernism, poststructuralism, and deconstructivism.) Neither Lather nor Lincoln and Guba included the pragmatic paradigm. I include the pragmatic paradigm because some scholars in the field of mixed methods research use it as a philosophical

basis for their work (Creswell, 2009; Morgan, 2007; Tashakkori & Teddlie, 2003). Guba and Lincoln (2005) suggest another paradigm called participatory, but to me this is a methodology that can be applied in various paradigms depending on the beliefs that guide the researcher; hence, I do not include it in the taxonomy of major paradigms.

Table 1.1 Labels Commonly Associated With Different Paradigms

Postpositivism	Constructivist	Transformative	Pragmatic
Experimental	Naturalistic	Critical theory	Mixed methods
Quasi-experimental	Phenomenological	Neo-Marxist	Mixed models
Correlational	Hermeneutic	Feminist theories	Participatory
Causal comparative	Symbolic interaction	Critical race theory	
Quantitative	Ethnographic	Freirean	
Randomized control trials	Qualitative	Participatory	
	Participatory action research	Emancipatory	
		Postcolonial/Indigenous	
		Queer theory	
		Disability theories	
		Action research	
		Indigenous	
		Human rights/equity focused	

SOURCE: Adapted from Lather (1992) and Guba and Lincoln (1989, 2005).

BOX 1.3 Postmodernism, Poststructuralism, and Deconstructivism

There is good news and bad news about postmodernism, poststructuralism, and deconstructivism, and both the good and bad news emanate from the basic tenet of these philosophical orientations, movements, or paradigms—that is, that definitive definitions of social phenomena are not possible, and by extension, definitive definitions of these three concepts are also not possible; otherwise the definer would violate the basic tenet. That being said, many authors who write about these topics begin with an explanation that their definitions of these terms are only one of many possible definitions, but it is necessary to use some words to explain what they mean, so the authors provide what they think is a useful definition. For example, Clegg and Slife (2009) write,

> From the postmodern viewpoint, any definition of anything, including the definition of postmodernism itself, is a value judgment, with ethical and even political implications. Another problem in defining postmodernism is that postmodernists (whoever these undefined entities are) resist the closed "totalizing" conceptions of things. They view such conceptions as inappropriate reductions of the real—stereotypes of the rich experience of whatever is being conceived or defined. (p. 23)

(*Continued*)

(Continued)

Crotty's (1998) explanation echoes this discomfort in defining postmodernism:

> Postmodernism refuses all semblance of the totalizing and essentialist orientations of modernist systems of thought. Where modernism purports to base itself on generalized, indubitable truths about the way things really are, postmodernism abandons the entire epistemological basis for any such claim to truth. Instead of espousing clarity, certitude, wholeness, and continuity, postmodernism commits itself to ambiguity, relativity, fragmentation, particularity, and discontinuity. (p. 185)

Hassan provides the following explanation of the ontological and epistemological implications of these terms:

> Deconstruction, decentering, disappearance, dissemination, demystification, discontinuity. . . . Such terms express an ontological rejection of the traditional full subject. . . . They express, too, an epistemological obsession with fragments or fractures, and a corresponding ideological commitment to minorities in politics, sex and language. (Hassan, cited in Wolin, 1992, p. 206, as cited in Crotty, 1998, p. 192)

Scholars have ongoing debates about the relationship between postmodernism and poststructuralism; Crotty (1998) resolves this dilemma by saying that each informs the other. Poststructuralism is commensurate with postmodernism in the sense that its adherents reject the possibility of definitive truth. Foucault (1980), as a poststructuralist, extends this idea to focus on the role of language and power in creating realities rather than thinking of reality as something that is there to be discovered. Derrida (1981) pushes the poststructuralist position to the point of deconstructing text, or, in other words, the reader has a responsibility to engage in a critical reading of text as an intervention, wrestling with multiple layers of meaning. This process makes visible previously silenced voices and the concomitant influences of dominant power structures as an act of resistance by the reader.

Despite the difficulties in pinning down definitions of postmodernism, poststructuralism, and deconstructivism, scholars from these orientations contribute to the debates of rigor in research in a number of ways. Readers who wish to pursue a deeper understanding of this philosophical orientation are invited to read the historical and contemporary references cited in this box.

Guba and Lincoln (2005) identify four basic belief systems characterized by the following questions that help define a paradigm:

1. The axiological question asks, "What is the nature of values and ethics?"
2. The ontological question asks, "What is the nature of reality?"
3. The epistemological question asks, "What is the nature of knowledge and the relationship between the knower and the would-be known?"
4. The methodological question asks, "What is the nature of systematic inquiry? How can the knower go about obtaining the desired knowledge and understandings?"

Four of the major paradigms in the research community are described in the next section. The lines between them are not altogether clear in practice. However, to guide their thinking and practice, researchers should be able to identify the worldview that most closely approximates their own. Answers to the paradigm-defining questions are summarized for each paradigm in Table 1.2.

POSTPOSITIVISM

The dominant paradigms that guided early educational and psychological research were *positivism* and its successor *postpositivism.* Positivism is based on the rationalistic, empiricist philosophy that originated with Aristotle, Francis Bacon, John Locke, Auguste Comte, and Immanuel Kant. The underlying assumptions of positivism include the belief that the social world can be studied in the same way as the natural world, that there is a method for studying the social world that is value-free, and that explanations of a causal nature can be

Table 1.2 Basic Beliefs Associated With the Major Paradigms

Basic Beliefs	Postpositivism	Constructivism	Transformative	Pragmatic[a]
Axiology (nature of ethical behavior)	Respect privacy; informed consent; minimize harm (beneficence); justice/ equal opportunity	Balanced representation of views; raise participants' awareness; community rapport	Respect for cultural norms; beneficence is defined in terms of the promotion of human rights and increase in social justice; reciprocity	Gain knowledge in pursuit of desired ends as influenced by the researcher's values and politics
Ontology (nature of reality)	One reality; knowable within a specified level of probability	Multiple, socially constructed realities	Rejects cultural relativism; recognizes that various versions of reality are based on social positioning; conscious recognition of consequences of privileging versions of reality	Asserts that there is a single reality and that all individuals have their own unique interpretation of reality
Epistemology (nature of knowledge; relation between knower and would-be known)	Objectivity is important; the researcher manipulates and observes in a dispassionate, objective manner	Interactive link between researcher and participants; values are made explicit; create findings	Interactive link between researcher and participants; knowledge is socially and historically situated; need to address issues of power and trust	Relationships in research are determined by what the researcher deems as appropriate to that particular study
Methodology (approach to systematic inquiry)	Quantitative (primarily); interventionist; decontextualized; mixes methods with quantitative approaches dominant	Qualitative (primarily); hermeneutical; dialectical; contextual factors are described; mixes methods with qualitative approaches dominant	Qualitative (dialogic), but quantitative and mixed methods can be used; contextual and historical factors are described, especially as they relate to oppression	Match methods to specific questions and purposes of research; mixed methods typically used

SOURCE: Adapted from Guba and Lincoln (1994, 2005) and Morgan (2007).

a. It should be noted that Patton (2002) also uses pragmatism as the underlying paradigm for his methodological writings in qualitative research.

provided. Positivists held that the use of the scientific method allowed experimentation and measurement of what could be observed, with the goal of discovering general laws to describe constant relationships between variables. Positivists made claims that "scientific knowledge is utterly objective and that only scientific knowledge is valid, certain and accurate" (Crotty, 1998, p. 29). While the focus on empirical, objective data has some appeal, it falls short when applied to human behavior.

Because there is much about the human experience that is not observable but is still important (e.g., feeling, thinking), postpositivist psychologists came to reject the positivists' narrow view that what could be studied was limited to what could be observed as well as to question the ability of researchers to establish generalizable laws as they applied to human behavior. Postpositivists still hold beliefs about the importance of objectivity and generalizability, but they suggest that researchers modify their claims to understandings of truth based on probability rather than certainty. Research methodologists such as D. T. Campbell and Stanley (1966) and Shadish, Cook, and Campbell (2002) embraced postpositivism's assumptions.

An example of research conducted within the postpositivist paradigm is summarized in Sample Study 1.1. The study is summarized according to the main categories typically included in a report of research situated in this paradigm—that is, research problem, question, methods/design, participants, instruments and procedures, results/discussion, and conclusions. The researchers in the sample study, conducted by McCarthy, Young, Benas, and Gallop (2017), explicitly chose to operate within the postpositivist paradigm, which led them to use an experimental design in order to measure the effectiveness of a program to reduce adolescent depression (Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST)) because they wanted to limit the effects of extraneous variables, such as differences between schools that the adolescents attended.

The answers to the paradigm-defining questions for postpositivism are as follows.

SAMPLE Study 1.1 Summary of a Postpositivist Research Study

SOURCE: © Dawn Urian, 2018.

Research Problem: Rates of depression increase in adolescents, and high levels of depression are linked to consequences such as poor academic performance and dropping out of school. Therefore, research on prevention of depression in this population is needed.

Research Questions: What are the effects of IPT-AST as compared to group counseling (GC) on school-related effects? How would the effects be different for students based on their initial grades or rates of tardies, absences, or disciplinary incidents? What is the relationship between lowered rates of depression and school-related outcomes, regardless of intervention condition?

Method/Design: A randomized control trial was used to compare students who used the IPT-AST program over a 6-month period with control students who did not receive the experimental treatment but received group counseling instead. The design is called a randomized control trial because individual students were randomly assigned to treatment and control groups.

Participants: Participants were enrolled in seventh to tenth grade in middle and high schools in New Jersey. They were selected through a two-stage screening process that consisted of completing a self-report measure (Center for Epidemiologic Studies Depression Scale); those with elevated depression symptoms completed structured diagnostic interviews to confirm the presence of their symptoms. There were 95 students in the experimental group and 91 in the control group.

Instruments and Procedures: The dependent variables included grades, attendance, and disciplinary records. The data were obtained at the end of each academic year from the school records; they were organized by preintervention and postintervention. They continued to collect this data for four additional academic quarters after the intervention was complete.

Results/Discussion: Statistical analyses allowed researchers to test student-level effects. The results indicated that there was no difference between the treatment and control groups on grades, attendance, or disciplinary incidences. When the analysis was broken down by family income, the results indicated that students from the highest poverty families benefited the most from the IPT-AST as compared to the control group.

Conclusions: The authors concluded that the lack of significant differences between experimental and control groups might be explained by several factors. First, the control group received group counseling that was modified to be as intensive as the treatment in the IPT-AST group. This form of group counseling is not typically provided in middle and high schools. Second, the intervention was limited to six months; other interventions that have been shown to be effective were more long term and involved students' parents and teachers, which IPT-AST does not. The positive effect for students from lower income families is one indicator that this might be an approach that is more effective for this group. More research is needed to determine effective approaches for treating depression in adolescents.

SOURCE: McCarthy et al. (2017).

Axiology

No matter what paradigm a researcher uses, ethics in research should be an integral part of the research planning and implementation process, not viewed as an afterthought or a burden. Increased consciousness of the need for strict ethical guidelines for researchers occurs each time another atrocity is discovered under the guise of research. The Nazis' medical experiments, the CIA's experimentation with LSD, the Tuskegee experiments on Black men with syphilis, and the U.S. government's administration of radioactive substances to uninformed pregnant women stand as examples of the worst that humans can do to each other. Ethical guidelines in research are needed to guard against such obvious atrocities as these; however, they are also needed to guard against less obvious yet still harmful effects of research. All researchers in the United States who work at universities or obtain funding through government agencies are required to get approval through an institutional review board (IRB). Similar ethics review boards exist in other organizations, communities, and countries as well. **The process of going through the IRB or other ethics review boards is discussed in Chapter 11 "Sampling" because the purpose of these reviews is to protect the people who participate in the research.** It is important for researchers to keep in mind the ethical implications of their work throughout the entire process of planning, implementing, and using the results of their research.

Postpositivists are guided by the work of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1978), which identified three ethical principles and six norms that should guide scientific research in the landmark report, *The Belmont Report.* The three ethical principles are as follows:

1. *Beneficence:* Maximizing good outcomes for science, humanity, and the individual research participants and minimizing or avoiding unnecessary risk, harm, or wrong
2. *Respect:* Treating people with respect and courtesy, including those who are not autonomous (e.g., small children, people who have mental retardation or senility)
3. *Justice:* Ensuring that those who bear the risk in the research are the ones who benefit from it; ensuring that the procedures are reasonable, nonexploitative, carefully considered, and fairly administered

The six norms of scientific research are as follows:

1. The researcher must use a *valid research design:* Faulty research is not useful to anyone and is not only a waste of time and money but also cannot be conceived of as being ethical in that it does not contribute to the well-being of the participants.
2. The *researcher must be competent* to conduct the research.
3. *Consequences of the research must be identified:* Procedures must respect privacy, ensure confidentiality, maximize benefits, and minimize risks.
4. *The sample selection must be appropriate* for the purposes of the study, representative of the population to benefit from the study, and sufficient in number.
5. The participants must agree to participate in the study through *voluntary informed consent*—that is, without threat or undue inducement (voluntary), knowing what a reasonable person in the same situation would want to know before giving consent (informed), and explicitly agreeing to participate (consent).
6. The researcher must inform the participants *whether harm will be compensated.*

These principles and norms form the basis for the work of the ethical review boards (e.g. IRB). Strategies for how researchers can adhere to these principles and norms as well as the topic of informed consent are discussed further in Chapter 11, "Sampling." Additional information is provided there, including website URLs that relate to professional associations' codes of ethics and the U.S. federal government's requirements for protection of human subjects in research.

With specific reference to axiological beliefs that guide researchers in the postpositivist paradigm, Mark and Gamble (2009) explain the claims that underlie the choice of randomized experiments as ethical methods. The first claim relates to a condition in which it is important to establish cause and effect and that there is uncertainty as to the effects of a particular treatment. The second claim is that randomized experiments provide greater value in terms of demonstrating the efficacy of a treatment than is possible by other methods. Mark and Gamble conclude, "A case can be made that good ethics justifies the use of research methods that will give the best answer about program effectiveness, as this may increase the likelihood of good outcomes especially for those initially disadvantaged" (p. 205).

Ontology

The positivists hold that one reality exists and that it is the researcher's job to discover that reality (naive realism; Guba & Lincoln, 1994). The postpositivists concur that a reality does exist but argue that it can be known only imperfectly because of the researcher's human limitations. Therefore, researchers can discover "reality" within a certain realm of probability. They cannot "prove" a theory, but they can make a stronger case by eliminating alternative explanations.

The ontological assumption in the McCarthy et al. (2017) research study exemplifies the postpositivist paradigm in that the researchers chose grades, attendance, and disciplinary incidents as their variables of interest and used quantitative measures of those variables to determine the effectiveness of their intervention. They were aware of the need to eliminate alternative explanations—which they controlled by their design of the study, but this takes us into the realm of methodology, discussed later in this chapter. They were also able to apply statistics to their data to support their findings that there was no difference between the experimental and control groups, within a certain level of probability.

Epistemology

In early positivist thinking, the researcher and the participants in the study were assumed to be independent; that is, they did not influence each other (Guba & Lincoln, 2005). Postpositivists modified this belief by recognizing that the theories, hypotheses, and background knowledge held by the investigator can strongly influence what is observed. This paradigm holds that objectivity in the sense that researchers do not allow their personal biases to influence the outcomes is the standard to strive for in research; thus, the researcher should remain neutral to prevent values or biases from influencing the work by following prescribed procedures rigorously.

The epistemological assumption of the postpositivist paradigm is exemplified in the McCarthy et al. (2017) study in that the researchers did not interact with the students in the collection of data. All data came from school records. The experimental treatment was administered by research personnel who were observed by an experienced IPT-AST to ensure that they faithfully implemented the program. The control treatment was administered by school counselors who completed a therapy procedures checklist to document how they implemented the group counseling.

Methodology

As mentioned previously, positivists borrowed their experimental methods from the natural sciences. Postpositivists recognized that many of the assumptions required for rigorous application of the scientific method were difficult, if not impossible, to achieve in many educational and psychological research studies with people; therefore, quasi-experimental methods (methods that are sort of experimental, but not exactly) were developed (D. T. Campbell & Stanley, 1966; Shadish et al., 2002). In other words, many times it is not possible to randomly assign people to conditions (as one can with plots of land for a study of fertilizers, for example); therefore, researchers devised modifications to the experimental methods of the natural sciences in order to apply them to people. Although qualitative methods can be used within this paradigm, quantitative methods tend to be predominant in postpositivist research.

EXTENDING YOUR THINKING

The Postpositivist Paradigm

Identify a research study that exemplifies the postpositivist paradigm. Explain why this study represents this paradigm. What are the distinguishing characteristics that lead you to conclude that this study belongs to this paradigm (e.g., what are the underlying characteristics that define a research study in this paradigm)?

A postpositivist approach to methodology is evident in the McCarthy et al. (2017) study in that the researchers used a randomized control experimental design that is associated with this paradigm. The researchers randomly assigned students to conditions. The researchers summarized complex variables such as economic status (parental income) into numeric scales. The researchers did not include qualitative, contextual information, such as teachers' and students' experiences with the program. They described the differential effects between the groups based on family income, age, sex, and ethnicity.

CONSTRUCTIVIST PARADIGM

Despite the recognition by postpositivists that facts are theory laden, other researchers questioned the underlying assumptions and methodology of that paradigm. Many different labels have been used for the constructivist paradigm, which can be seen from the sample list in Table 1.1. The constructivist label was chosen for this paradigm because it reflects one of the basic tenets of this theoretical paradigm—that is, that reality is socially constructed.

The constructivist paradigm grew out of the philosophy of Edmund Husserl's phenomenology and Wilhelm Dilthey's and other German philosophers' study of interpretive understanding called *hermeneutics* (Clegg & Slife, 2009). Hermeneutics is the study of interpretive understanding or meaning. Historians use the concept of hermeneutics in their discussion of interpreting historical documents to try to understand what the author was attempting to communicate within the time period and culture in which the documents were written. Constructivist researchers use the term more generally, seeing hermeneutics as a way to interpret the meaning of something from a certain standpoint or situation.[1] Clegg and Slife further explain the concept of hermeneutics by citing the work of "Martin Heidegger (1927/1962) [who] argued that all meaning, including the meanings of research findings, is fundamentally interpretive. All knowledge, in this sense, is developed within a preexisting social milieu, ever interpreting and reinterpreting itself. This perspective is usually called hermeneutics" (p. 26). An example of a constructivist research study is presented in Sample Study 1.2 that used a narrative approach to explore the experiences of general classroom teachers in implementing Universal Design for Learning (Lowrey, Hollingshead, Howery, & Bishop, 2017).

The basic assumptions guiding the constructivist paradigm are that knowledge is socially constructed by people active in the research process and that researchers should attempt to understand the complex world of lived experience from the point of view of those who live it

(Schwandt, 2000). The constructivist paradigm emphasizes that research is a product of the values of researchers and cannot be independent of them. The answers to the paradigm-defining questions for the constructivist approach are as follows.

SAMPLE Study 1.2 Summary of a Constructivist Research Study

SOURCE: © iStockphoto/kali9.

SOURCE: © iStockphoto/Highwaystarz-Photography.

Research Problem: Universal Design for Learning (UDL) is a framework that educators can use to remove barriers for students with disabilities. The experience of teachers who implement UDL is often missing from the research literature. This study was conducted in order to gather the voices of teachers who implemented UDL in their classrooms.

Research Questions: How do general education teachers experience the implementation of UDL in their classrooms, including with students with moderate and severe intellectual disabilities?

Method/Design: The researchers used a narrative inquiry approach in this study in order to obtain the teachers' stories about their experiences in their own words.

Participants: Seven general education teachers participated in the study. They worked in districts in the United States and Canada that had implemented UDL for at least a year.

Instruments and Procedures: Data were collected by semi-structured interviews conducted by all of the researchers. The researchers developed an interview protocol designed to elicit stories about UDL; the researchers all practiced with the interview protocol before conducting the actual interviews. All the interviews were conducted via telephone and lasted between 30 and 60 minutes. The phone conversations were recorded and transcribed.

Results: "Four themes emerged across all participants' stories: (a) designing for learner variability, (b), talking about inclusion, (c) teaming fosters success, and (d) differing descriptions of UDL" (p. 230). The teachers talked about deliberately planning for how they would include every student in their lessons. They noted the importance of having professional support and a network of other teachers and educators to help them. Their stories also revealed that the teachers had variable descriptions of what it means to implement UDL.

Discussion: The variability in the teachers' understanding of UDL indicates a need for continuing professional development in this area. Additional research is needed to identify effective instructional strategies that align with the UDL framework.

SOURCE: Lowrey et al. (2017).

Axiology

Constructivist researchers (indeed almost all U.S.-based researchers as well as most researchers located throughout the world) are expected to adhere to the basic principles of ethics found in *The Belmont Report* and in their professional associations' codes of ethics. However, constructivists provide a different slant on the meaning of ethics compared to the postpositivists' noncontextual, nonsituational model that assumes that "a morally neutral, objective observer will get the facts right" (Christians, 2005, p. 148).

Lincoln (2009) developed a framework for ethical practice of qualitative research based on a revised understanding of the researcher-researched relationship. She identified the criteria for rigor as trustworthiness and authenticity, including balance or fairness (inclusive representation of stakeholders in the process of the research), ontological authenticity (make respondents aware of their constructions of reality), educative authenticity (educate others about the realities experienced by all stakeholder groups), catalytic authenticity (enable stakeholders to take action on their own behalf), and tactical authenticity (training participants how to act on their own behalf). Lincoln also included reflexivity, rapport, and reciprocity as additional criteria that have emerged and noted that along with their emergence have come additional ethical tensions. How can a researcher from a group imbued with unearned privileges by virtue of social class, language, race/ethnicity, gender, or other attributes establish rapport in an ethical manner with people who do not share such privileges? Constructivists also borrow notions of ethics from feminists in the form of combining theories of caring and justice as holding potential to address issues of social justice in ways that are both respectful of the human relations between researchers and participants and that enhance the furtherance of social justice from the research (Christians, 2005; Lincoln, 2009). Hence, constructivists' writings on ethical principles are moving closer to alignment with those of transformative researchers.

Ontology

Reality is socially constructed. Therefore, multiple mental constructions can be apprehended, some of which may be in conflict with each other, and perceptions of reality may change throughout the process of the study. For example, the concepts of disability, feminism, and minority are socially constructed phenomena that mean different things to different people.

Schwandt (2000) describes what he calls "everyday" constructivist thinking in this way:

> In a fairly unremarkable sense, we are all constructivists if we believe that the mind is active in the construction of knowledge. Most of us would agree that knowing is not passive—a simple imprinting of sense data on the mind—but active; mind does something with those impressions, at the very least forms abstractions or concepts. In this sense, constructivism means that human beings do not find or discover knowledge so much as construct or make it. (p. 197)

But constructivist researchers go one step further by rejecting the notion that there is an objective reality that can be known and taking the stance that the researcher's goal is to understand the multiple social constructions of meaning and knowledge.

In terms of ontology, the Lowrey et al. (2017) study (Sample Study 1.2) exemplifies the constructivist paradigm in a number of ways. First, the researcher allowed the concepts of importance in the study to emerge as they had been constructed by the participants. Rather than studying the implementation of a defined curriculum or pedagogical approach, they used open-ended questions to elicit the teachers' stories about their experiences. They did not assume that they knew how UDL was implemented in each school; rather, they asked the teachers to describe their understanding of UDL and how they implemented it.

The authors' ontological assumptions are also evidenced in their discussion of their decision to use the constructivist approach. "In this narrative inquiry project, we sought to gather stories from practitioners and hear the firsthand account of those who experience UDL framework implementation with students with moderate and severe ID in their everyday practice. Our assumption was the authenticity of teachers' voices would add to the currently scarce body of UDL-focused research and provide a springboard to further applied research in this area" (Lowrey et al., p. 236).

Epistemology

The inquirer and the inquired-into are interlocked in an interactive process; each influences the other. The constructivist therefore opts for a more personal, interactive mode of data collection. The concept of objectivity that is prominent in the postpositivist paradigm is replaced by confirmability in the constructivist paradigm (Lincoln, Lynham, & Guba, 2011). The assumption is made that data, interpretations, and outcomes are rooted in contexts and persons apart from the researchers and are not figments of their imagination. Data can be tracked to their sources, and the logic used to assemble interpretations can be made explicit in the narrative. The Lowrey et al. (2017) study was limited in this sense in that all the data were collected via telephone interviews. In many constructivist research studies, the researchers strive to build relationships with their participants. They build the reader's confidence in their results by interacting with participants in multiple ways over extended periods of time.

Methodology

Qualitative methods such as interviews, observations, and document reviews are predominant in this paradigm. These are applied in correspondence with the assumption about the social construction of reality in that research can be conducted only through interaction between and among investigator and respondents (Lincoln, Lynham, & Guba, 2011). This interactive approach is sometimes described as hermeneutical and dialectical in that efforts are made to obtain multiple perspectives that yield better interpretations of meanings (hermeneutics) that are compared and contrasted through a

dialectical interchange involving the juxtaposition of conflicting ideas, forcing reconsideration of previous positions.

The methodological implication of having multiple realities is that the research questions cannot be definitively established before the study begins; rather, they will evolve and change as the study progresses. In addition, the perceptions of a variety of types of persons must be sought. For example, in special education research, the meaning of total inclusion needs to be explored as it has been constructed by regular and special education administrators and teachers, parents who have children with and without disabilities, and students with differing types and severity of disabilities (Mertens & McLaughlin, 2004). Finally, the constructivist researcher must provide information about the backgrounds of the participants and the contexts in which they are being studied.

As noted previously, the data collection in the Lowrey et al (2017) study was limited to review of literature about UDL and telephone interviews with the teachers. This limited methodology contrasts sharply with the in-depth, longitudinal methodology used by Stich and Cipollone (2017) in their study of urban reform in Buffalo, New York. Some of the methodological strategies that exemplify the constructivist paradigm are found in this description of their methods:

> A total of 54 focal students are included in this sample, along with parents (27), teachers (2-3 per school), school counselors (1-3 per school), and administrators (1 per school). Each focal student was interviewed twice per year over 3 years. Parents were interviewed twice. In addition, researchers interviewed at least one science teacher and one math teacher at each school (once per year), and at least one school counselor at each school (once each year). Administrators were interviewed once. In addition to interview data, researchers spent more than 300 hours in each school engaged in participant and nonparticipant observations. Researchers would visit classrooms, observe counselor meetings, attend parent events, and a range of other extracurricular activities. Researchers also visited students' homes. Finally, official school documents (e.g., official student transcripts that provided data on actual courses taken, grades, and standardized test scores) and other materials (e.g., classroom handouts, letters home, lists of course offerings, website materials) were also collected and analyzed. (p.111)

EXTENDING YOUR THINKING

The Constructivist Paradigm

Identify a research study that exemplifies the constructivist paradigm. Explain why this study represents this paradigm. What are the distinguishing characteristics that lead you to conclude that this study belongs to this paradigm (e.g., what are the underlying characteristics that define a research study in this paradigm)?

TRANSFORMATIVE PARADIGM

The constructivist paradigm has been criticized not only by positivists and postpositivists but also by another group of researchers who represent a third paradigm of research: the transformative paradigm. This group includes critical theorists, participatory action researchers, Marxists, feminists, racial and ethnic minorities, persons with disabilities, and members of Indigenous communities, among others. Transformative researchers acknowledge that the constructivist paradigm makes different claims with regard to reality, epistemology and methodology, and theories of causality than do postpositivists. As we saw in the description of the axiological assumptions of the constructivist paradigm, leaders in the field of qualitative methods are more and more citing the need to situate their work in social justice. This shift in the constructivist scholarship is an indicator of the permeability of the paradigmatic boundaries. However, the transformative paradigm directly addresses the politics in research by confronting social oppression at whatever levels it occurs (Mertens, 2009). Thus, transformative researchers consciously and explicitly position themselves side by side with the less powerful in a joint effort to bring about social transformation.

Although no unified body of literature is representative of the transformative paradigm, four characteristics are common to the diverse perspectives represented within it and serve to distinguish it from the postpositivist and constructivist paradigms (Mertens, 2009):

1. It places central importance on the lives and experiences of the diverse groups that, traditionally, have been marginalized (i.e., women, minorities, and persons with disabilities). Researchers should not limit study to the lives and experiences of only marginalized groups; they should also study the way oppression is structured and reproduced. Researchers must focus on how members of oppressed groups' lives are constrained by the actions of oppressors, individually and collectively, and on the strategies that oppressed groups use to resist, challenge, and subvert. Therefore, studying oppressed people's lives also includes study of the oppressors' means of dominance.
2. It analyzes how and why inequities based on gender, race or ethnicity, disability, sexual orientation, and socioeconomic classes are reflected in asymmetric power relationships.
3. It examines how results of social inquiry on inequities are linked to political and social action.
4. It uses a transformative theory to develop the program theory and the research approach. A program theory is a set of beliefs about the way a program works or why a problem occurs. Different types of program theories and their influence on the research process are explored in later chapters.

Researchers who were concerned about a number of different issues and events contributed to the development of the transformative paradigm. Some of these stimulating concerns and issues are discussed next.

Why Did the Transformative Paradigm Emerge?

The transformative paradigm arose partially because of dissatisfaction with the dominant research paradigms and practices and because of limitations in the research associated with these paradigms that were articulated by feminists; people of color; Indigenous and postcolonial peoples; people with disabilities; members of the lesbian, gay, bisexual, transgender, and queer communities; and others who have experienced discrimination and oppression, as well as other advocates for social justice. The need to reexamine our beliefs as researchers is exemplified in the following quotation from an Indigenous African researcher:

> The postcolonial condition remains pertinent and evident in educational research, where the application of mainstream research epistemologies, and their assumed universal validity, in assembling, analyzing, interpreting and producing knowledge today remains a highly foreign and a colonizing instrument that continues to define those from former colonies, and all the departments of their lives, as "the other." (Chilisa, 2005, p. 662)

As these voices became more visible in the research community, professional organizations in education and psychology revised their standards of ethics and developed research agendas to be more responsive to transformative issues. These changes are also evidenced in the

BOX 1.4 Basic Principles Underlying Feminist Research and Evaluation

1. The central focus is on gender inequities that lead to social injustice. Every study should be conducted with an eye toward making recommendations to reverse gender inequities.
2. Research and evaluation methods are social constructs and may reflect a dominant patriarchal ideology.
3. Discrimination or inequality based on gender is systemic and structural. Inequity based on gender is embedded in the major institutions and other shapers of societal norms such as schools, religion, media, pop culture, government, and corporations. This affects who has power and access.
4. Research and evaluation are political activities; the contexts in which the inquirer operates are politicized; and the personal experiences, perspectives, and characteristics researchers and evaluators bring to their work (and with which we interact) lead to a particular political stance. Acknowledging the political nature of such inquiry raises questions concerning the definition of objectivity within the traditional norms of science.
5. Knowledge is a powerful resource that serves an explicit or implicit purpose. Feminists hold that knowledge should be a resource of and for the people who create, hold, and share it. Consequently, the evaluation or research process can lead to significant negative or positive effects on the people involved in the evaluation/research.
6. There are multiple ways of knowing; some ways are privileged over others. Transformative knowledge is sought that emanates from an experiential base.
7. Knowledge and values are culturally, socially, and temporally contingent. Knowledge is also filtered through the knower. The researcher/evaluator must recognize and explore multiple ways of knowing. The characteristics of the knower will influence the creation of knowledge; critical self-reflection is necessary.

SOURCE: Brisolara (2014).

standards for accreditation that are cited at the beginning of this chapter that require inclusion of diversity issues for psychologists and teachers.

Feminist Perspectives. My first exposure to feminist psychology came from Gilligan's (1982) criticism of sociological and psychological theory because it was conducted from a male perspective using only male students as subjects. Theories formerly thought to be sexually neutral in their scientific objectivity have been found to reflect a consistent observational and evaluative bias. Gilligan cited many examples of dominant theories in psychology that were developed using the male as the norm, including Freud's theory of personality, McClelland's theory of motivation, and Kohlberg's theory of moral development. As these theories were reexamined from the feminist perspective, I developed a new level of awareness about the importance of giving credence to women's life experiences. Principles of feminist inquiry that are displayed in Box 1.4 illustrate the contribution of feminist scholars in terms of explicating the meaning of working from a feminist perspective. As will be discussed in later chapters, feminist theories are not univocal. There are many varieties of feminist theories, and they differ by regions of the world.

Cultural Competency. Many professional organizations have been active in clarifying the meaning and importance of cultural competence and its implications for researchers. For example, the American Evaluation Association (AEA) approved a Statement on Cultural Competence in Evaluation (2011) that includes this definition:

> Cultural competence is not a state at which one arrives; rather, it is a process of learning, unlearning, and relearning. It is a sensibility cultivated throughout a lifetime. Cultural competence requires awareness of self, reflection on one's own cultural position, awareness of others' positions, and the ability to interact genuinely and respectfully with others. Culturally competent evaluators refrain from assuming they fully understand the perspectives of stakeholders whose backgrounds differ from their own.

AEA's statement includes these concepts: acknowledge the complexity of cultural identity, recognize the dynamics of power, recognize and eliminate bias in language, and employ culturally appropriate methods.

Discussions at an American Psychological Association (APA) meeting in 1983 about cross-cultural counseling revealed that some ethnic minority psychologists believed that White researchers who study their communities do so without understanding or caring for the people who live there (Mio & Iwamasa, 1993). The APA Joint Task Force of Division 17 and 45 published *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists*; these were updated in 2017. The underlying principles and the guideline most directly relevant for cultural competency in research are displayed in Box 1.5. The 2017 version expands the concept of diversity beyond race to recognize the "intersectionality among and between reference groups identities, including culture, language, gender, race, ethnicity, ability status, sexual orientation, age, gender identity, socioeconomic status, religion, spirituality, immigration status, education, and employment, among other variables" (p. 8).

BOX 1.5 APA Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists: Principles and Research Guidelines (2017)

> Guideline 5. Psychologists aspire to recognize and understand historical and contemporary experiences with power, privilege, and oppression. As such, they seek to address institutional barriers and related inequities, disproportionalities, and disparities of law enforcement, administration of criminal justice, educational, mental health, and other systems as they seek to promote justice, human rights, and access to quality and equitable mental and behavioral health services. (p. 11)
>
> Guideline 6. Psychologists seek to promote culturally adaptive interventions and advocacy within and across systems, including prevention, early intervention, and recovery. (p. 11)
>
> Guideline 9. Psychologists strive to conduct culturally appropriate and informed research, teaching, supervision, consultation, assessment, interpretation, diagnosis, dissemination, and evaluation of efficacy as they address the first four levels of the *Layered Ecological Model of the Multicultural Guidelines*. (p. 12)

APA provides guidance to psychologists as practitioners and researchers on issues of discrimination on the basis of gender (APA, 2007), immigrant populations (2013), LGBT communities (2016b), and people with disabilities (2012).

Implications for Method: Researchers are asked to recognize the way that the larger societal context impacts on individuals and to understand the implications for respect for human rights in these contexts. Applying these guidelines to researchers and evaluators suggests that we must be wary of the deficit models that place the blame for social problems in the individual or culture rather than in the societal response to the individual or cultural group.

Differential Achievement Patterns. Differences in school achievement by gender, race, class, and disability have been documented in educational research studies over many decades. In 1989, P. B. Campbell discounted the view that poor academic achievement is the result of genetic or biological factors. She suggested that the differences could be accounted for by the choice of test and test items, parental and teacher expectations, differential course taking, differential treatment in the same classes, and different experiences outside school.

The American Educational Research Association's Commission on Research in Black Education developed a Transformative Research and Action Agenda to address the issue of differential achievement on the basis of race, especially focused on African Americans and people of African descent globally (J. E. King, 2005). King asks this question: "How can research become one of the forms of struggle for Black education?" (p. 6). Her answer to this question reinforces the need for a transformative paradigm of research:

> The ultimate object of a transformative research and action agenda is the universal problem of human freedom. That is, a goal of transformative education and research practice in Black education is the production of knowledge and understanding [that] people need to rehumanize the world by dismantling hegemonic structures that impede such knowledge. (p. 5)

Anyon (2005) suggests that educational research will have an impact on equity in educational achievement only if it is set in the larger context of the community and social forces. For example, researchers need to examine oppressive policies and practices that result in continued lack of access to resources in poor communities. The power structures and dynamics need to be studied to understand how the people in power make decisions. She contends that real change comes through organized social issue campaigns. Hence, important research questions center on examining the psychological process necessary to promote involvement in such campaigns. Effective interventions may need to go beyond curriculum and pedagogical practices to equitable access to resources, job creation, public transportation improvements, and affordable housing.

Philosophical and Theoretical Basis

The philosophical basis of the transformative paradigm is quite diverse, reflecting the multiple positions represented in that paradigm. The transformative paradigm provides a philosophical framework that explicitly addresses issues of power and justice and builds on a rich base of scholarly literature from mixed methods research (Tashakkori & Teddlie, 2010), qualitative research (Denzin & Lincoln, 2018b), participatory action research (Reason & Bradbury, 2006), feminist researchers (Hesse-Biber, 2014b), critical ethnography (Madison, 2012), culturally responsive research and evaluation (Hood, Hopson, & Frierson, 2015), Indigenous researchers (Battiste, 2000; Chilisa, 2012; Cram et al., 2013; L. T. Smith, 2012), disability researchers (Mertens & McLaughlin, 2004; M. Sullivan, 2009), and researchers in the international development community (Segone, 2012). Framed from a historical perspective, the transformative paradigm is commensurate with the teachings of educator Paulo Freire and his "dialogical conscientization" model in Brazil (1970); Habermas's communicative action theory; and Foucault, Lyotard, and Todorov on the academic rhetoric supportive of institutional forms of domination and control (Christians, 2005).

Feminist Theory. Feminist theory, not a unified body of work, informs the transformative paradigm in its many versions. Hesse-Biber (2014b) describes the commonality of concern for feminist theories as exploring issues of power in women's lives with the goal of improving the lives and relations between women and men, economically, socially, culturally, and personally. Feminists generally agree that, historically, women have not enjoyed the same power and privileges as men, either in the public or private sphere. Women live their lives in an oppressive society; this concept of oppression links the voices of those who work in the transformative paradigm.

Critical Race Theory. Similar themes emerge from the writings of African American scholars. Gordon (1995) writes,

> The Black challenge to Western ideological hegemony is older than both critical and feminist discourse and was born of the need for intellectual, ideological, and spiritual liberation of people who lived under both the racist domination and sexist patriarchal subordination to which both the critical and feminist discourse react and refer. (p. 190)

She criticizes the critical and feminist scholars as follows:

> The blind side of critical and feminist discourses is their inability, unwillingness, or complete lack of awareness of the need to focus on the conceptual systems that construct, legitimize, and normalize the issues of race and racism. This is demonstrated through the flagrant invisibility in their works of the critical and cultural model generated by the subjugated oppressed group from its own experiences within a dominant and hostile society. (pp. 189–190)

She does not see sufficient attention being given to the African American critical and liberatory pedagogy in most feminist discourse. A number of ethnic minorities have written that mainstream feminists are not representative of their views (e.g., P. H. Collins, 2000; Ladson-Billings & Donnor, 2005), thus adding to the complexity of identifying the philosophical base of the transformative paradigm. Critical race theory can be used as a framework for researchers to uncover the racism that continues to oppress people of color as well as to provide guidance for racial social justice.

Queer/LGBTQ Theory. Researchers who work in the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities express concern about the lack of critical reflection on how meaning making about gender and sexual identity is not only about the context but also about the socially constructed identity of the individual in the setting. Queer theory (sometimes labeled LGBTQ theory) has emerged as a way to challenge the hegemony inherent in the two-dimensional separation of male or female as a way of measuring gender and sexual identity. For the LGBTQ community, persistent internalized homophobia can conceal discrimination to the degree that persistent subtle degrading manipulation is not even acknowledged or those demeaned feel powerless to challenge the question (Dodd, 2009; Mertens, Foster, & Heimlich, 2008). By establishing a transformative approach and reaching out to concealed communities, researchers have the opportunity to engage voices that have been traditionally unrecognized or excluded.

Disability Theory. More complexity is added by those who have written of a new paradigm for the disability community (Mertens & McLaughlin, 2004; M. Sullivan, 2009). Persons with disabilities discuss a shift from a medical/deficit model to a social-cultural model as a framework for understanding this community's experiences. The social-cultural model of disability challenges the medical perspective by allowing people with disabilities to take control over their own lives by shifting the focus onto the social rather than the biological factors in understanding disability. Accompanying this shift in self-perceptions is a shift in research perspectives put forth by members of the disability community. Emancipatory research came from the disability community from the "nothing about us without us" political activism that was based on moving the control of research into the hands of persons with disabilities. However, M. Sullivan (2009) notes that maybe it is time for the disability community to walk side by side with nondisabled researchers using the transformative paradigm in the search for social justice.

EXTENDING YOUR THINKING

Oppression

Is it appropriate to use the "umbrella" term *oppression* to include the experiences of women, racial/ethnic minorities, immigrants, Indigenous peoples, lesbian/gay/bisexual/transgender/queer individuals, the elderly, members of minority religious groups, persons with disabilities or persons who are Deaf? Why or why not?

Are there fundamental differences between/among groups, or are these differences exaggerated? For example, between males and females? Persons of different ethnicities? Persons with disabilities and those without? How do you reconcile the idea of intersectionality with the various bases used for discrimination in society? What does this mean for your research?

Indigenous Theory. There is no single Indigenous theory; there is no universal agreement that Indigenous understandings of research should be characterized as a theory, an approach, or a paradigm (Cram et al., 2013). Chilisa (2012) writes about the Indigenous paradigm and explicates the philosophical assumptions associated with that paradigm. Not all Indigenous scholars would agree that Indigenous theory belongs under the transformative paradigm, rather, they would argue that it should be considered as a separate paradigm with its own set of philosophical assumptions. Mertens and Cram (2015) acknowledge the tension in trying to put Indigenous research into a Western-developed structure, but they put forth the argument that the Indigenous voice can be brought into the transformative paradigm as a way of stretching and enriching understandings of the meaning of conducting research for the purpose of social transformation. This is possible because the transformative paradigm has space within it for many worlds and tolerance of the complexity of subjectivities and identities of inhabitants. For Indigenous peoples, the transformative goal is to have their rights and sovereignty recognized, to challenge colonization, and where applicable, to restore their lands.

As the APA statement on multicultural psychology makes clear, individuals are not defined by one characteristic, such as gender or race. As researchers, we need to consider the intersectionality of characteristics that are used as a basis of discrimination in society as well. These theoretical perspectives are discussed in great depth later in this text.

An example of a transformative mixed methods research study is illustrated in Sample Study 1.3. With that lengthy introduction to the transformative paradigm and in full recognition of its diverse and emerging character, the answers to the four defining questions follow.

Axiology

The transformative paradigm places priority on the axiological assumption as a guiding force for conceptualizing subsequent beliefs and research decisions. The starting point for transformative researchers is the territory that encompasses human rights and social justice. The transformative paradigm emerged because of dissatisfaction with research conducted within

SAMPLE Study 1.3 Summary of a Transformative Mixed Methods Research Study

SOURCE: © iStockphoto/yngsa.

Research Problem: Schmalenbach was invited by an NGO (nongovernmental organization) to work with them in a school in El Salvador located in a high poverty, high risk community. They asked her to work with them, the principal, and the teachers to identify and implement teaching methods that were appropriate for their context.

Research Questions: "To what extent is cooperation or mutual support observable in this context? What experiences with cooperation and mutual support do children and adults have outside of school?" (Schmalenbach, 2018, p. 317, italics in original). "How can teachers be supported to transform more of their high motivation for small group learning into well-informed practice?" (Schmalenbach, 2018, p. 148).

Method: A transformative mixed methods design was used for this study. The researcher conducted a careful, historical, contextual analysis of El Salvador and the school district in which she would collect her data. She established relationships with the principal and the teachers and began a year-long ethnographic study that included participant observation, interviews, and document reviews. The students completed diaries about their cooperative activities every few days and participated in focus groups. She met with parents individually and in cooperative group training sessions. She taught classes using cooperative learning techniques with two of the teachers. Midway through the year, she conducted a survey with teachers in a randomly selected group of schools to determine the attitudes of teachers toward the use of cooperative learning and their practices of that strategy for teaching. She returned to El Salvador for one month nine months after leaving the field and conducted additional data collection through group interviews. A couple of years later, she returned again to conduct teacher training to share what she had learned through her research.

Participants: The ethnographic part of the study occurred in one school that has about 120 students and seven regular teachers, one teacher for additional instruction, and one special needs teacher. She focused her attention on students in Grades 2 through 5. A total of 287 teachers from the 24 different schools participated in the survey. It was not possible to determine the exact number of teachers in 8 of the schools. However, for the other 18 schools, a 79% return rate was achieved.

Instruments and Procedures: The researcher took observational notes while sitting in the back of the classroom, focusing on interactions of students with each other; the participation part of the observational process became more important as she began teaching classes. She had a semi-structured interview guide to use with the teachers that focused on their teaching experiences, cooperation, and use of group work. Interviews with students focused on their preferences for individual or group work and their reasons for their preferences. The cooperation diary had simple questions such as "Who did I help today?" and "Who helped me?" Training sessions with parents focused on how the parents could support their children's learning. The focus groups with children focused on strategies for addressing conflicts that had arisen in group work situations.

Results: The community in which the research was conducted is an informal settlement that arose after an earthquake forced many people to seek a new place to live. Many of the youth have affiliated themselves with one of the most powerful gangs in El Salvador. Even if they are not gang members, they are stigmatized because they come from this community. Teachers expressed frustration at trying to make a difference when they see a pattern of aggressive behaviors that are reinforced in the community. She also reported many stories of resilience in the face of challenges. Instances of helping each other and cooperation were also visible in data from observations and interviews. The survey results showed that teachers saw potential in using cooperative learning strategies, but they were not widely used because of a lack of training and materials. The results of the survey contributed to a shift in the focus of the ethnographic part of the study to look at

the supports that teachers needed in order to use cooperative learning. The teachers saw group work as one way to teach values of solidarity and cooperation, but they were skeptical of its power because of the limited amount of time they have with students.

Discussion: The research was conducted with a conscious attempt to engage the participants in transformative experiences. Through active involvement of persons in the community throughout the research process, individuals found a safe place to share their experiences and learn from each other. Participants described an increase in their belief that they could make a difference in children's lives. However, sustainability of the changes is in question because of the lack of resources and support and because of the wider cultural context with its economic challenges.

SOURCE: Based on Schmalenbach (2018).

other paradigms that was perceived to be irrelevant to or a misrepresentation of the lives of people who experience oppression. Members of marginalized communities expanded the meaning of the ethical principles introduced under the postpositivist paradigm and have encouraged the use of community-based ethics review boards (Key, 2017). Greater concern about the rights and welfare of research participants generally leads to greater involvement of the participants themselves in the research process—one of the basic tenets of the transformative paradigm. Hence, the transformative axiological assumption is examined from a number of different perspectives:

- How transformative researchers critique and extend the principles of respect, beneficence, and justice on several fronts. Respect is critically examined in terms of the cultural norms of interaction in diverse communities and across cultural groups. This includes respect for dignity and worth of the community members and the right to know and understand transparently (Key, 2017). Beneficence is defined in terms of the promotion of human rights and an increase in social justice. The research should maximize the benefit for the group and the individual in the present day as well as in the future (sustainability). An explicit connection is made between the process and outcomes of research and evaluation studies and furtherance of a social justice agenda. There should be a fair distribution of costs and benefits across the community.
- Human rights initiatives through the United Nations reinforce the need to be aware of those whose rights are not respected worldwide.
- The codes of ethics from relevant professional associations and organizations provide guidance for researchers and evaluators as to what constitutes ethical practice. As mentioned previously, those codes of ethics have been critically reviewed and revised to reflect a greater concern for principles that are reflective of the axiological assumptions of the transformative paradigm. The AEA modified its guiding principles to include an explicit principle related to the role of cultural competency in ethical evaluation practice. The APA's 2002 ethics code was amended in 2016; it takes a strong stance about protection of people in research that involves deception. Ethics in psychology has been extended by Brabeck and Brabeck's (2009) application of feminist principles in psychology.

- There are other ethical guidelines associated with various professional associations, government agencies, and donor agencies.
- Researcher guidelines are also available from Indigenous communities that provide insights into ethical grounding of research and evaluation from that perspective. For example, Cram (2009) provided guidelines for researchers from the Maori people, such as show respect for people by meeting them face to face, take time to build relationships, and take responsibility for giving back to the community. Other Indigenous groups have developed ethical principles that require that the researcher communicate the intended research agenda, design, activity, and reports with members of the host community (Angal, Petersen, Tobacco, Elliott, & PASS Network, 2016; LaFrance & Crazy Bull, 2009). The research should be designed in such a way as to bring benefit to the host community and to foster the skills and self-sufficiency of host community scientists.

Transparency and reciprocity are important values that are included in the transformative axiological position. An explicit connection is made between the process and outcomes of research and furtherance of a social justice agenda. In the past, researchers provided incentives, such as money or materials (e.g., office supplies or gift certificates for a book store, educational toys, or a fast-food restaurant) to the participants in their studies. The transformative researcher emphasizes the importance of giving back to the community that provides the data in the form of less tangible rewards and might offer additional training for community members and provision of access to the results so they can be used to improve practice, obtain additional funds, or influence policy.

Ethical principles developed for cross-cultural settings can provide insights in how to conduct research that involves participants and researchers from different countries (Matsumoto & Jones, 2009). Researchers can adapt ethical guidelines that were based on developments for cross-cultural research when working with people from minority communities in the United States. Although the cross-cultural ethical standards were developed to guide researchers in other countries, they have applicability for research with Native Americans, Native Alaskans, Hispanics, African Americans, and other minority populations such as the Deaf community. Cross-cultural ethical principles require collaboration between the researcher and the host community. In the American Deaf community, representatives of the host community could be identified through various national organizations, such as the National Association of the Deaf or Self-Help for Hard of Hearing People. Collaboration should not be limited to conversations with leaders, although building relationships with these initial contacts can be a way of learning how to appropriately access other members of the Deaf community.

Visiting researchers should strive to conduct the research on an equal-status basis with the host community members. Errante (2001) provides good insights into the struggles faced by a researcher when the participants in the study question the benefit of their participation (see Box 1.6).