

CHAPTER 1

An Introduction to Research

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

Domain D. Cultural and Individual Differences and Diversity: The program has and implements a thoughtful and coherent plan to provide students with relevant knowledge and experiences about the role of cultural and individual diversity in psychological phenomena as they relate to the science and practice of professional psychology.

—American Psychological Association Commission on Accreditation, 2009, p. 10

Standard IV. Diversity & Equity: Professional Development Schools (PDS) partners and candidates systematically analyze data to address the gaps in achievement among racial groups. PDS partners implement curricula in the university and school programs that reflect issues of equity and access to knowledge by diverse learners.

—National Council for Accreditation of Teacher Education, 2001, p. 14

In response to youth suicides in the Latino community, professionals and community members worked together to develop the Santa Barbara Wellness Program based on the empowerment philosophy of Paolo Freire (1973; 2004). The program was framed by the community's definition of the problem and possible solutions.

—Consoli, Casas, Cabrera, and Prado, 2012, p. 69

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 give us pause to think about the role that research can play in providing insights into how to change 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.

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.

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*.

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 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.

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 participant in

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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 G. D. Borman et al.'s (2007) study of school literacy, they had a total sample of 35 schools with 2,108 students who started in kindergarten and stayed in the same school for 3 years. 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. 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. 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. For example, in the G. D. Borman et al. (2007) study, the dependent variable was literacy skills as measured by the Woodcock Reading Mastery Test-Revised.
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 true experimental research, 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. G. D. Borman et al. (2007) randomly assigned schools to experimental groups that implemented the Success for All treatment and compared them to control schools that did not implement that treatment. A researcher can 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 (Maxwell, 2012).
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.

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.

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: Problem sensing (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 (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 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 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. Hence, mixed methods strategies are presented later in the text.

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 somewhat of a newcomer in the research community but is being more 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 (2002) 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, 2002, p. 69)

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 (2000) 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 (Ladson-Billings & Donnor, 2005, p. 295).

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 “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.

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).

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.

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)

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:

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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, 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. St. Pierre (2000, 2002) describes deconstructivism as a process of engaging with text that analyzes how a "structure has been constructed, what holds it together, and what it produces" (St. Pierre, 2000, p. 482). 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 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, "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

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	Qualitative (primarily); hermeneutical; dialectical; contextual factors are described	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 can be used as researcher works back and forth between various approaches

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.

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 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), T. D. Cook and Campbell (1979), 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 G. D. Borman et al. (2007), explicitly chose to operate within the postpositivist paradigm, which led them to use an experimental design in order to measure the effectiveness of a literacy development program (*Success for All*) because they wanted to avoid contamination of the results from extraneous variables such as inherent differences between schools that agreed to implement the program and schools that did not agree to implement it.

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

SAMPLE STUDY 1.1 Summary of a Postpositivist Research Study



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Research Problem: The United States uses the National Assessment of Educational Progress (NAEP) to track academic performance of its students. National disparities in NAEP scores are evidenced on the basis of race/ethnicity (13% of African American, 16% of Hispanic, and 41% of Whites score at the proficient level), as well as on the basis of economic status (16% of students eligible for free lunch are proficient compared to 42% of noneligible students).

Research Question: "Does Success for All [a literacy development program] produce achievement effects for schools and students targeted by and exposed to the model's 3-year developmental literacy treatment?" (p. 706).*

Method/Design: A cluster randomized control trial was used to compare students who used the Success for All program over a 3-year period from kindergarten to second grade with control students who did not receive the treatment. The design is called a cluster randomized design because schools (rather than individual students) were randomly assigned to treatment and control groups.

Participants: Forty-one schools in the urban Midwest and rural South were included in the first year of the study. By the third year, 35 schools remained in the study (18 experimental and 17 control). The treatment and control schools were matched on baseline demographics. The majority of the students were economically disadvantaged (72% were eligible for free lunch). Overall, 56% of the sample was African American, 10% Hispanic, and 30% White. The final sample at the end of the third year consisted of 1,085 students in 18 treatment schools and 1,023 students in 17 control schools.

Instruments and Procedures: The Peabody Picture Vocabulary Test was given as a pretest; children whose home language was Spanish were given the Spanish version of this test. The third-year posttests were three subtests of the Revised Woodcock-Johnson Mastery Tests: Word Identification, Word Attack, and Passage Comprehension.

Results/Discussion: Hierarchical linear model analyses allowed researchers to test school-level and student-level effects. The results indicated a school-level effect that favored the treatment group on the three Year 3 measures. Student-level effects ranged from one fifth to one third of a standard deviation, meaning that they demonstrated between 2 and 3 months of additional learning compared to the control group on the subtests.

Conclusions: The findings support a statistically significant improvement in literacy skills for children in diverse school settings under naturalistic implementation conditions. Success for All is a school-level intervention that requires commitment from leaders and teachers, as well as external support in the form of professional development and ongoing consultation.

*The researchers also investigated the effect of the treatment for students who entered the school during the 3-year period of the study to determine the effects for all students with variable exposure to the treatment. This aspect of their study is not included in the interest of providing a simpler and clearer example of a postpositivist approach to research. The interested reader, however, can find the full details in the original source.

SOURCE: G. D. Borman et al. (2007).

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.

In the postpositivist's view, ethics is intertwined with methodology in that the researcher has an ethical obligation to conduct "good" research. Good research in this paradigm means "intellectual honesty, the suppression of personal bias, careful collection and accurate reporting of data, and candid admission of the limits of the scientific reliability of empirical studies—these were essentially the only questions that could arise" (Jennings & Callahan, 1983, p. 6, as cited in Christians, 2005, p. 159).

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. Use of 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.*

The topic of informed consent is discussed further in Chapter 11 on 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 (2009, p. 204) cite Henry (2009, p. 36) to further justify the ethics of using this approach: "Henry further contends that to achieve findings about program consequences that are 'as conclusive as possible,' the 'most conclusive and widely regarded means for producing findings that have these attributes are random assignment experiments.'" 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 (naïve 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 (critical realism) (Maxwell, 2012). 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 G. D. Borman et al. (2007) research study exemplifies the postpositivist paradigm in that the researchers chose reading literacy as their variable of interest and used a quantitative measure of that variable to determine the level of literacy for the students in their study. 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 claim that the change in literacy skills was real, 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 (Lincoln & Guba, 2000). 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 G. D. Borman et al. (2007) study in that the researchers used trained testers who were "unaware of students' experimental or control assignments. Testers who were recruited for the study were primarily graduate students" (p. 716). The testers were expected to follow exactly the same procedures for asking questions of the respondents and for recording their responses. To standardize the responses, the goal was to ask exactly the same questions, in the same way, of each of the students. The tests used a fixed-response format for the questions. The researchers checked the testers' performance to ensure that they were following the same procedures.

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; T. D. Cook & Campbell, 1979; 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.

A postpositivist approach to methodology is evident in the G. D. Borman et al. (2007) study in that the researchers used a randomized control experimental design that is associated with this paradigm. The researchers could not randomly assign students to conditions; however, they could randomly assign schools to conditions (experimental or control). The researchers summarized complex variables such as literacy skills and economic status (eligible for free lunch or not) into numeric scales. As mentioned previously, the researchers acknowledged the limitations of their study in that they did not include qualitative, contextual information such as teachers' and students' experiences with the program (although they did use qualitative data to discuss the extent of implementation of the treatment). Nor did they describe the differential effects within the treatment group, such as on the basis of type of disability.

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)?

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.

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

Research Problem: New pedagogical practices are needed to reach youth who are disengaged from learning because of challenges stemming from poverty, class, race, religion, linguistic and cultural heritage, or gender.

Research Questions: What do music teachers do to respond to and overcome challenges of re-engaging disaffected youth? "What is it that music teachers think they do in developing inclusive pedagogies in classroom contexts where young people are most at risk of exclusion?" (p. 63).

Method/Design: Burnard used a phenomenological case study approach that focused on ascertaining how teachers can affect student learning in a specific context with a specific group of people. The phenomenon under study was educational practices of teachers with disaffected students in three specific contexts (i.e., schools).

Participants: Schools that were performing poorly were selected based on national data on socioeconomic data and failing to meet national standards for achievement. Information from professional organizations and university partnerships was used to identify teachers within these schools who were known to work to engage disaffected learners through music education. Three secondary school music teachers participated in the study from three comprehensive schools in east and southeast regions of England.

Instruments and Procedures: Primary data collection consisted of two in-depth semistructured interviews with each teacher that lasted approximately 2 hours. Open-structured recall interviews made use of the school's music curriculum, students' work, and photographs as prompts during the interviews. The researcher spent 1 day observing each teacher in music classes. However, the researcher limited her observations in the schools because all of the students were not willing to provide informed consent for videotaping in their classrooms.

Results: Demonstrating respect for students and recognition of the richness found in diverse backgrounds provided grounds for the teachers to relate to students who "have given up, who don't find school relevant let alone meaningful" (p. 67). One teacher engaged young people by designing creative performance projects that involved the students with musicians, composers, and performers from the community. "The visiting artists got us all talking in conversations about music, the arts, life . . . in which everyone feels safe to speak and all voices are respected" (p. 69). Another teacher used technology to engage learners through collaborative music making and sharing, as well as in media applications related to graphic art design.

Discussion: The three teachers demonstrated a deep commitment to meeting individual student's needs, holding their students to high standards of performance, and focusing on the development of feelings of self-worth and agency for the young people. The pedagogical activities ranged from "music participation, and ICT [Information and Communication Technology] based learning, to the high-status creative project or event-based activities that were believed to engender a redemptive self-respect in those who felt otherwise excluded from society" (p. 72).

SOURCE: Burnard (2008).



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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).

Early on, Guba and Lincoln (1989) developed a framework for ethical practice of qualitative research based on a revised understanding of the researcher-researched relationship. To this end, they put forth 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 (2009) reinforced these as appropriate criteria for constructivists and added 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; Noddings, 2003). 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 Burnard (2008) 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, she studied pedagogical practices used to engage disaffected youth not as she conceptualized them but, rather, as they were constructed by the teachers in the study. She asked this question:

How [do] music teachers working with disengaged students—whose difficulties with learning in school are expressed through disruption, disengagement and withdrawal—promote inclusiveness through the development of particular pedagogic practices? . . . What is it that teachers think they do in developing inclusive pedagogies in classroom contexts where young people are most at risk of exclusion? (pp. 62–63)

The author's ontological assumptions are also evidenced in her discussion of her decision to use the constructivist approach. Burnard acknowledges that her report of the three teachers' experiences does not result in a definitive capture of a reality that can be generalized to a larger population. Rather, she argues that these teachers' accounts shed light on teaching strategies that can be adapted by other teachers (whether of music or other subjects) in order to reach disaffected learners.

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 & Guba, 2000). 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. For example, rather than having graduate students who were not personally familiar with the teachers collect data, Burnard (2008) visited the schools and spent a day with each teacher, observing them with their students prior to formal interviewing. Also, Burnard does not make a claim of objectivity in the sense of personal distance from the teachers in her study. Rather, she supported the validity of her claims by the multiple sources of data that she used and the multiple methods that she used to collect the data. She also provided multiple examples of direct quotations from the teachers to support the inferences that she drew from the data.

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 & Guba, 2000). 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.

Some of the methodological strategies that were used in the Burnard (2008) study of music teachers' pedagogical experiences that exemplify the constructivist paradigm include the following:

- Multiple data collection strategies were used, most of which resulted in qualitative data. The researcher made observations in the classrooms, conducted interviews, and reviewed documents such as the music curriculum, student work, and photographs.
- The teachers were not randomly chosen to represent a wider population. Rather, the sampling proceeded from identification of schools and then teachers within those schools. The schools were chosen purposefully because they served disadvantaged communities and had low achievement scores when compared to national performance. The teachers were then chosen (again purposefully) because they were recognized by their professional associations or university partnerships as leaders who actively pursued inclusion of disaffected students through music education.
- The interview questions evolved over time and were adjusted based on each previous interview to develop a transcript for each teacher that documents his or her experiences with the demands and opportunities in teaching music in their settings.
- The author included a detailed description of the context of the study in terms of the type of community, economic factors, and school characteristics.
- The focus of the study was to explain the teachers' pedagogical practices from their own point of view. The researcher shared her data, analysis, and interpretations with the teachers to allow them an opportunity to comment on their accuracy.

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 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.

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 (in press).

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 Council of National Psychological Associations for the Advancement of Ethnic Minority Interests² (CNPAEAMI, 2000) published Guidelines for Research in Ethnic Minority Communities, and the APA's Joint Task Force of Divisions 17 and 45 published *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* in 2002.³ The underlying principles and the guideline most directly relevant for cultural competency in research are displayed in Box 1.5.

BOX 1.5

APA Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists: Principles and Research Guideline

The American Psychological Association Joint Task Force of Divisions 17 and 45 formulated their recent *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* (APA, 2002). The guideline associated with research and diversity is as follows:

Guideline #4: "Culturally sensitive psychological researchers are encouraged to recognize the importance of conducting culture-centered and ethical psychological research among persons from ethnic, linguistic, and racial minority backgrounds" (p. 39).

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 (2011), and people with disabilities (2012).

Implications for Method: Related to the research question is choosing culturally appropriate theories and models on which to inform theory-driven inquiry (Quintana, Troyano, & Taylor, 2001). Psychological researchers are encouraged to be aware of and, if appropriate, to apply Indigenous theories when conceptualizing research studies. They are encouraged to include members of cultural communities when conceptualizing research, with particular concern for the benefits of the research to the community (Fontes, 1998; LaFromboise, 1988). Applying this guideline 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.

Klingner and Boardman (2011) describe issues in special education that support the need for a transformative approach to research. Students from minority racial and ethnic groups are overrepresented in special education compared to their proportion of the school-age population. They argue that part of the solution is the use of mixed methods research that is focused on culture, language, and the nature of social interactions in order to address the complexities of the problem.

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, 2011b), participatory action research (Reason & Bradbury, 2006), feminist researchers (Hesse-Biber, 2014b), critical ethnography (Madison, 2012), culturally responsive research and evaluation (Hood, Hopson, Obeidat, & Frierson, *in press*), 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; Habermas’s communicative action theory; and Foucault, Lyotard, and Todorov on the academic rhetoric supportive of institutional forms of domination and control.

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, 2000; Stanfield, 2011), thus adding to the complexity of identifying the philosophical base of the transformative paradigm. Ladson-Billings (2000) explains the use of critical race theory 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 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 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.

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. Mertens and Cram (in press) 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.

These theoretical perspectives are discussed in great depth later in this text.

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, and persons with disabilities? 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?

An example of a research study using a single method conducted within the transformative paradigm is summarized in Sample Study 1.3. A transformative mixed methods study is illustrated in Sample Study 1.4.

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.

SAMPLE STUDY 1.3 Summary of a Transformative Single-Method Research Study

Research Problem: People with mental illnesses often feel bewildered about the nature of their sickness and the effects and effectiveness of their treatment, even after they meet with a health care professional. Schizophrenia is a severe mental illness that is associated with isolation, difficulties in the everyday tasks of living, and sometimes suicide. Research is needed to determine ways interventions can be more effective with this population.

Research Questions: What topic is of importance to people with schizophrenia for research? What is the nature of experiences reported by people with schizophrenia with health care professionals? How can information about these experiences be used for personal transformation of the participants and transformation of the health care system?



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Method: A transformative participatory design was used for this study. The research was initiated by a university researcher in conjunction with a member of a support group for people with schizophrenia. Once funding was obtained, the research team met with members of the support group over a 3-month period to bring focus to the study. The group decided to use in-depth interviews with each other on their experiences with medical professionals.

Participants: The participants consisted of the members of the support group for people with schizophrenia.

Instruments and Procedures: The interview questions were developed by a group process with the participants and research team. The university researcher conducted training with group members on interviewing techniques. The members of the group interviewed each other in a group setting, allowing others who were present to ask questions or make comments. The interviews were tape recorded and transcribed. The group members conducted a thematic analysis of the data, aided by a graduate student. The group suggested content and quotations from the interviews to be used in a script that the university researcher wrote for a readers' theater performance.

Results: Two sides of a picture of experiences with health professionals emerged, one good and one bad, but both pictures centered on issues of

communication. The issues that arose related to communications about their diagnosis (if it was clearly conveyed), medications (effectiveness and side effects), information about supports for people with schizophrenia, and being treated with dignity and respect.

Discussion: The research was conducted with a conscious attempt to engage the participants in transformative experiences. Through active involvement of persons with schizophrenia throughout the research process, individuals found a safe place to share their experiences and learn from each other. Group members described an increase in their ability to connect with others on an important topic, as well as solve problems that were broader than their individual stories. They conducted seven performances in a readers theater format to audiences of professionals and people with mental illness. They also disseminated a list of recommendations to medical professionals that outlined how they wanted to be treated; they report receiving feedback from these professionals that indicate a change in the way they view and treat people in this marginalized group.

SOURCE: Based on Schneider et al. (2004).

SAMPLE STUDY 1.4 Summary of a Transformative Mixed Methods Evaluation Study

Evaluation Problem: Women who live in poverty experience poor health, lower economic and educational achievement, less access to material resources, increased menial or unrewarding work, and less social support than their wealthier peers. Gender stereotypes often keep such women from even imagining that they could strive for and achieve a better quality of life.

Evaluation Question: Will the Map Your Future Mentoring Program (MYF) improve women's self-esteem, help them define new hopes and dreams, develop teamwork skills, and prepare them for their chosen activity (e.g., work or training)?

Method: A feminist strengths approach to evaluation was designed to incorporate both quantitative survey and qualitative case study research. The evaluators used a cyclical approach that honored the women's knowledge and experience in the development of the intervention and resulted in applying the knowledge generated to improve the quality of their lives.

Participants: Participants include 18 Australian women between the ages of 21 and 62 who were mentored; 13 of these women completed the program. Most of the women did volunteer work; only 2 had paid employment.

Instruments and Procedures: The independent variable is the MYF program, which consists of eight sessions for those being mentored and four mentoring meetings that supported the mentors and mentees. The evaluator used a mixed methods approach. Qualitative data were collected by means of journal notes, including records of phone calls, e-mails, and participant observations; meeting minutes and transcripts; and semistructured interviews with mentees and mentors. The quantitative dependent variable included a questionnaire designed to measure demographics, self-esteem, personal communication, social support, hope and optimism, and ego-resilience, and gathering employment data.

Results: Four of the 11 women had begun studies and three others obtained employment. Of the seven who withdrew from the program, two had found employment. The women were able to articulate the gender stereotypes that kept them down and served as a support group to each other so that they could take steps to get out of poverty.

Discussion: The women began to see themselves as active agents in their own lives and that they could challenge oppressive gender stereotypes. As a feminist evaluation, this study investigated the strengths of women who participate in programs like the MYF program. It included an agenda for social change to enhance women's abilities to expand their career and educational goals and change their views of themselves as active agents.

SOURCE: Based on Boddy (2009).

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 other paradigms that was perceived to be irrelevant to, or a misrepresentation of, the lives of people who experience oppression. 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. Beneficence is defined in terms of the promotion of human rights and an increase in

social justice. An explicit connection is made between the process and outcomes of research and evaluation studies and furtherance of a social justice agenda.

- 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 revised its ethics code in 2002, strengthening 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.
- Interestingly, the APA's description of the role of the psychologist as an agent of prosocial change is reflective of the axiological assumption of the transformative paradigm that ethical research and evaluation are defined by their furtherance of social justice and human rights, all the while being cognizant of those characteristics associated with diverse populations that impede progress on these fronts. 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. These include the following:
 - Respect for people, meaning people are allowed to define their own space and meet on their own terms.
 - Meet people face to face: Introduce yourself and the idea for the research before beginning the research or sending complicated letters or other materials.
 - Look and listen: Begin by looking and listening and understanding in order to find a place from which to speak.
 - Sharing, hosting, being generous: This forms the basis of a relationship in which researchers acknowledge their role as learners with a responsibility to give back to the community.
 - Be cautious: Harm can come from a lack of political astuteness and cultural sensitivity, whether the researcher is an insider or an outsider.
 - Do not trample on the dignity of a person (*mana*): Inform people without being patronizing or impatient. Be wary of Western ways of expression such as wit, sarcasm, and irony.
 - Avoid arrogant flaunting of knowledge: Find ways to be generous with sharing your knowledge in a way that empowers the community.

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.

Other cross-cultural ethical principles require that the researcher communicate the intended research agenda, design, activity, and reports with members of the host community (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. The visiting researcher 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).

BOX 1.6 Benefits of Participating in Research

Errante (2001) conducted an oral history of educational experiences in Mozambique. She found that some of the Mozambicans were cynical about the conduct of focus groups and interviews by internationals. They wanted to know why a rich foreigner could make her living by constantly asking them questions, yet nothing ever changed for them anyway. She commented,

This lesson in humility reminded me once again of the importance of establishing mutual respect and trust with narrators. I now take more time just engaging in conversation. I explain what oral history work means to me more fully, and the value of the narrators' life experiences for the national patrimony. I ask narrators, particularly older ones, to think about what they would like their grandchildren to know about their life and their educational experiences. I ask them if they would like to know something about my life before we start. And I listen first and foremost to the story narrators want to tell me. All of this helps to construct an interpersonal bridge; it gives the narrator and me a chance to get to like each other. (p. 21)

Ontology

Truths are not relative. What are relative are opinions about truth.

—Nicolás Gómez Dávila, 2001

Like the constructivist paradigm, multiple versions of what is perceived to be real are recognized in the transformative paradigm. However, the transformative paradigm

stresses that acceptance of such differences of perceptions as equally legitimate ignores the damage done by ignoring the factors that give privilege to one version of reality over another, such as the influence of social, political, cultural, economic, ethnic, gender, and disability lenses in the construction of reality. In addition, the transformative ontological belief emphasizes that that which seems “real” may instead be reified structures that are taken to be real because of historical situations. Thus, what is taken to be real needs to be critically examined via a critique of its role in perpetuating oppressive social structures and policies.

Schneider et al. (2004) recognized that multiple perceptions of appropriate intervention for people with schizophrenia exist. Some of the ways of perceiving what is an effective intervention are harmful—that is, not sharing the diagnosis with the patients or not understanding the implications of severe side effects of some medications on the person’s willingness to take medications. The researchers deliberately set out to understand the perceived reality of an effective therapeutic relationship from the vantage point of people with schizophrenia.

Epistemology

The transformative paradigm’s epistemological assumption centers on the meaning of knowledge as it is defined from a prism of cultural lenses and the power issues involved in the determination of what is considered legitimate knowledge. This means that not only is the relationship between the knower and the would-be known (i.e., the researcher and participants) interactive, it also involves a consciousness of cultural complexities in that relationship. In order to address issues of power in understanding what is valued as knowledge, S. Harding (1993) recommends that the researcher use a methodology that involves “starting off thought” from the lives of marginalized people” (p. 56). This would reveal more of the unexamined assumptions influencing science and generate more critical questions. The relationship should be empowering to those without power and examine ways the research both benefits and does not benefit participants.

Haraway (1988) describes feminist objectivity as “situated knowledge”—that is, recognizing the social and historical influences on that which we say we know. S. Harding (1993) argues that politically guided research projects have produced fewer partial and distorted results (as in sexist or racist) than those supposedly guided by the goal of value neutrality. Objectivity in the transformative paradigm is achieved by reflectively examining the influence of the values and social position of the researcher on the problems identified as appropriate for research, hypotheses formulated, and key concepts defined.

For example, the epistemological assumptions of the transformative paradigm are evident in the Schneider et al. (2004) study not only in the participatory approach to constructing the research focus but also in the collaboration that functioned throughout the entire 2-year research period. The academic researcher (Schneider) approached the Schizophrenia Society of Alberta to determine interest in a collaborative research project based on transformative participatory research principles. The Schizophrenia Society runs a support group for people with schizophrenia, and the woman who runs that group agreed to work with Schneider on a grant proposal. Once funding was obtained, the research leaders met with the support group over a 3-month period to determine the focus and methods of the research: experiences with mental health professionals. The research

leaders and group members maintained a close relationship throughout the project, attending biweekly meetings for data collection. Schneider's comment illustrates the transformative epistemological assumption that underlies this research:

As the interviews progressed, we realized that we had created a place in which members could talk freely about aspects of their lives that they normally have no opportunity to talk about. . . . Hearing details of the life experiences of group members was often an emotional experience, both for those who were describing their experiences and for those who were listening. The structure of the interview process allowed even people who rarely speak at Unsung Heroes meetings to tell their stories. Through the interviewing, we became a caring and supportive community of friends. (p. 567)

Methodology

Scholars writing from the perspectives of feminists, ethnic minorities, poor people, and people with disabilities have commonly expressed dissatisfaction with both the postpositivist and constructivist paradigms of inquiry (Chilisa, 2012; Cram, 2009; Mertens, 2009). Mertens (2009) identified three characteristics of the transformative paradigm with ethical implications for methodological choices:

1. Traditionally silenced voices must be included to ensure that groups marginalized in society are equally heard during the research process and the formation of the findings and recommendations.
2. An analysis of power inequities in terms of the social relationships involved in the planning, implementation, and reporting of the research is needed to ensure an equitable distribution of resources (conceptual and material).
3. A mechanism should be identified to enable the research results to be linked to social action; those who are most oppressed and least powerful should be at the center of the plans for action in order to empower them to change their own lives.

Transformative researchers are pluralistic and evolving in their methodologies. The empiricists who work within the transformative tradition tend to use quantitative methods; however, they emphasize a need for more care and rigor in following existing methods commonly associated with the postpositivist paradigm to avoid sexist, racist, or otherwise biased results (Hesse-Biber, 2014b). Other transformative researchers use a wide diversity of methods; many make use of qualitative methods, such as interviews, observations, and document review, within a transformative framework. In transformative research that comes from the participatory action research tradition, it is viewed as essential to involve the people who are the research participants in the planning, conduct, analysis, interpretation, and use of the research. A common theme in the methodology is inclusion of diverse voices from the margin.

Schneider et al. (2004) exemplified the transformative methodology by focusing on methods that would allow opportunities for personal and systemic transformation, as well as by using a cyclical model for the research process. The cycle of research began with 3 months of group meetings to determine the focus of the research, the methods to

be used for data collection (in-depth interviewing by members of the group of each other), and the specific interview questions. The results of that group process were used to frame the next cycle in the research: preparing for and conducting the interviews. The interviews were conducted in a group setting with an assigned interviewer and interviewee; however, anyone could make comments or ask questions during the interview.

The group members, with the assistance of a graduate student, analyzed the data to identify themes related to communication in the therapeutic relationship. The group members then recommended quotations for Schneider et al. to use in preparing a script for a readers theater presentation based on the research study's findings. At the time the 2004 article was published, the group performed the presentation seven times to the public and health care providers. In addition, the participants/co-researchers developed a list of recommendations for professionals for how they would like to be treated.

Validity From a Transformative Perspective: A Methodological Issue

Validity is often thought of as related to the validity of a data collection instrument (see Chapter 12 on data collection), but validity has broader meanings. Kirkhart (2005) and Lincoln (2009) have been at the forefront of the discussion of the integral connection between the quality of the human relations in a research setting and the validity of the information that is assembled. Kirkhart (2005) proposes specific consideration of what she terms “multicultural validity,”⁴ which she describes as referring to the “correctness or authenticity of understandings across multiple, intersecting cultural contexts” (p. 22). I argue that multicultural validity is a good candidate for considering transformative validity. She outlines five justifications for multicultural validity:

1. *Theoretical*: The cultural congruence of theoretical perspectives underlying the program, the evaluation, and assumptions about validity
2. *Experiential*: Congruence with the lived experience of participants in the program and in the evaluation process
3. *Consequential*: The social consequences of understandings and judgments and the actions taken based upon them
4. *Interpersonal*: The quality of the interactions between and among participants in the evaluation process
5. *Methodological*: The cultural appropriateness of measurement tools and cultural congruence of design configurations (p. 23)

EXTENDING YOUR THINKING

The Transformative Paradigm

- Identify a research study that exemplifies the transformative 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)?

- How can the research community address the issues of oppression and group differences in access to power without engendering greater divisiveness?

- Who should and can do transformative research? S. Harding (1993) writes the following in answer to this question:

But the subject of every other liberatory movement must also learn how gender, race, class, and sexuality are used to construct each other in order to accomplish their goals.... It cannot be that women are the unique generators of feminist knowledge. Women cannot claim this ability to be uniquely theirs, and men must not be permitted to claim that because they are not women, they are not obligated to produce fully feminist analyses. Men, too, must contribute distinctive forms of specifically feminist knowledge from their particular social situation. (p. 67)

Do you agree or disagree with Harding? State your reasons.

- How can a researcher from a dominant group (i.e., one with power) conduct meaningful research about those of differing race, class, gender, and disability? How can researchers conduct an inquiry on the same cultural group that they are a member of? How can those with less power "study up" the members of groups with more power?

- It is not clear whether the transformative paradigm is to replace existing paradigms or to be an alternative paradigm in conducting research. Do you see it as an alternative or preferred paradigm in conducting evaluations or research concerning marginalized groups? Or is it a paradigm to be integrated into the existing research methodologies, regardless of the research focus? Some researchers will argue that this paradigm is incompatible with scientific research methods. What is your response to this argument?

Pragmatic Paradigm

Tashakkori and Teddlie (2010) identify pragmatism as one of the paradigms that provides an underlying philosophical framework for mixed methods research.⁵ It should be noted that mixed methods research can also be based in the transformative paradigm if the researcher adheres to the philosophical beliefs of that paradigm more strongly than to those of pragmatism (Mertens, 2009; Mertens & Wilson, 2012). As the transformative paradigm was extensively discussed in the previous section, the text here will focus on the pragmatic paradigm as described by Tashakkori and Teddlie (2010), Maxcy (2003), and Morgan (2007).

Historically, pragmatism can be divided into an early period from 1860 to 1930 and a neopragmatic period from 1960 to the current time (Maxcy, 2003). Early pragmatists included Charles Sanders Peirce (circa 1877), William James, John Dewey, George Herbert Mead, and Arthur F. Bentley. These philosophers rejected the scientific notion that social science inquiry was able to access the "truth" about the real world solely by virtue of a single scientific method. Thus, their belief systems were closely aligned in this sense to constructionists. The neopragmatists, including Abraham Kaplan, Richard Rorty, and Cornel West, built on the work of the early pragmatists. However, they moved even further from the metaphysical and emphasized the importance of common sense and practical thinking.

Understandings of pragmatism as a philosophical school have no doubt shifted throughout the centuries; the way this philosophy is interpreted in the current mixed methods research community has strayed somewhat from the earlier pragmatist philosophers. The current focus is related to earlier pragmatists in several ways: The focus is on “lines of action” (from William James and George Herbert Mead) and “warranted assertions” (from John Dewey), along with a general emphasis on “workability” (from James and Dewey) (Morgan, 2007, p. 66). Dewey would call inquiries what we do when we undertake to determine the workability of any potential line of action, and the inquiry results would provide warrant for the assertions that we make about that line of action. In pragmatists’ eyes, the lines of action are methods of research that are seen to be most appropriate for studying the phenomenon at hand. “The essential emphasis is on actual behavior (‘lines of action’), the beliefs that stand behind those behaviors (‘warranted assertions’), and the consequences that are likely to follow from different behaviors (‘workability’)” (Morgan, 2007, p. 67). The pragmatists’ goal is to search for useful points of connection.

A pragmatic mixed methods study is illustrated as Sample Study 1.5. This is a study of student dropout and reenrollment in high school (Berliner, Barrat, Fong, & Shirk, 2008).

SAMPLE STUDY 1.5 Summary of a Pragmatic Mixed Methods Study

Research Problem: The United States has a very high dropout rate for high school students. Some of the students drop out and never come back; some reenroll and graduate. Students who do not graduate from high school have more challenges in terms of literacy necessary to succeed in the contemporary labor market.

Research Questions: How many students drop out of high school in this district? How many students who dropped out reenroll in high school? What are the reasons students drop out and reenroll?

Method: A pragmatic, sequential mixed methods design was used that included sequential collection of both quantitative and qualitative data to provide answers to the research questions. Researchers started with quantitative analysis of dropout and reenrollment data, followed by semistructured interviews with staff and students.

Participants: The study took place in one school district in California because it had a linked, longitudinal student-level data set that tracked dropouts and reenrollments in the district. This was a convenience sample of a large, urban, and racially diverse school district with a total of 3,856 students who were first-time ninth graders in 2000/2001. Seven district administrators, seven principals, and six students were interviewed in 2007.

Instruments and Procedures: The quantitative portion of the study involved a statistical analysis of a longitudinal data set from 2000/2001–2006/2007. In addition, researchers had access to course information that the students took and demographic data about the students. The qualitative portion included interviews with 20 people from the school district, which lasted between 30 and 45 minutes each. The semistructured interviews were conducted by the researchers during a weeklong, in-person visit to the school district.

Results: About 45% of the students graduated in the allotted 4 years of high school with regular high school diplomas. About 35% had dropped out at least once during that time; 20% transferred to other schools and their whereabouts and status are unknown. Of the 35% who dropped out, 31% reenrolled at a school in that district and 18% of these graduated by 2005/2006. The qualitative data from the reenrolled students revealed that they struggled academically, were bored, failed courses, or had other life circumstances like family crises, pregnancy, or gang pressure that led them to drop out and challenged their ability to complete their high school degrees.

Discussion: Dropping out is not a fixed outcome; students do reenroll and drop out and reenroll. Students returned to school for a variety of reasons—some because they could not get a job without a high school diploma, others because of urging from a significant person such as a counselor or coach. The administrators indicated that they needed additional resources to reach out to youth and to support them when they did reenroll for counseling and academic support.

SOURCE: Based on Berliner et al. (2008).

Axiology

Questions of ethics were very important to early pragmatists such as James, Dewey, and Mead. Dewey (and James) emphasized an ethics of care, particularly for the youngest members of society (Hall, 2013). Dewey incorporated strong ethical principles into pragmatism in the form of the need to engage with multiple constituencies to gain understandings from different points of view. He also supported a democratic model of research. For contemporary researchers working within the pragmatic paradigm, the ethical goal of research is to gain knowledge in the pursuit of desired ends (Morgan, 2007). This is somewhat akin to what Christians (2005) describes as the utilitarian theory of ethics in that “all that is worth valuing is a function of its consequences” (p. 144).

Ontology

Pragmatists have for the most part avoided the use of metaphysical concepts such as truth and reality that have caused (in their eyes) much endless and often useless discussion and debate (Teddlie & Tashakkori, 2010). In a pragmatic approach, there is no problem with asserting both that there is a single “real world” and that all individuals have their own unique interpretations of that world. Rather than treating incommensurability as an all-or-nothing barrier to mutual understanding, pragmatists treat issues of inter-subjectivity as a key element of social life. In particular, the pragmatist emphasis on creating knowledge through lines of action points to the kinds of “joint actions” or “projects” that different people or groups can accomplish together (Morgan, 2007, p. 72).

Effectiveness is to be used as the criterion for judging value of research, rather than correspondence of findings to some “true” condition in the real world (Maxcy, 2003). Effectiveness is viewed as establishing that the results “work” with respect to the specific problem that the researcher seeks resolution of.

What is healthy about a pragmatic social science of mixed and multiple methods is . . . it allows a number of projects to be undertaken without the need to identify invariant prior knowledge, laws, or rules governing what is recognized as “true” or “valid.” Only results count! (p. 85)

This contrasts sharply with the other paradigms’ emphasis on the nature of reality and possibility of objective truth. Instead, one of the defining features of pragmatism is an emphasis on “what difference it makes” to believe one thing versus another or to act one way rather than another (Morgan, 2007, p. 68).

In the Berliner et al. (2008) study, the researchers start by analyzing numbers of students who drop out and reenroll based on the assumption that it will be useful to

know how many students drop out and reenroll and eventually graduate (or not) as it is ascertained from the longitudinal data kept by the school district. They want to add to their ability to interpret the numbers, so they also schedule interviews to get data that reflect administrators', principals', and students' perceptions of reasons for dropping out and reenrolling.

Epistemology

Dewey's version of epistemology reflects the concept that research takes place in communities and thus the researcher needs to interact with the diverse members of communities to both understand a problem and address the problem (Hall, 2013; Morgan, 2007). Intelligent action becomes possible because researchers interact with the communities and learn about the way each person understands the phenomenon and possible consequences of different courses of action. The values that are supported by communities should include freedom, equality, and justice; Dewey viewed these values as those that characterize a democracy. Thus, researchers work with communities to determine the intelligent course of action and to determine the appropriateness of those actions once they have been implemented.

In the mixed methods literature about the pragmatic paradigm and epistemology, researchers do not position themselves as distanced observers. Rather, the pragmatist is free to "study what interests you and is of value to you, study it in the different ways that you deem appropriate, and utilize the results in ways that can bring about positive consequences within your value system" (Tashakkori & Teddlie, 1998, p. 30). The criterion for judging the appropriateness of a method, with its implied relationship between the researcher and the researched, is if it achieves its purpose (Maxcy, 2003).

The longitudinal data sets were available to the researchers without traveling to the district. Hence, this portion of the research was completed before the researchers visited the site. The researchers then made a weeklong site visit to the district, during which they interviewed district administrators, principals, and students. The researchers do not report the nature of the relationships they had with the individuals they interviewed.

Methodology

Qualitative and/or quantitative methods are compatible with the pragmatic paradigm. Method should be decided by the purpose of the research (Tashakkori & Teddlie, 2010). Neopragmatists wrote extensively of the importance of using mixed methods and avoiding being constrained by a single, monolithic method, as they perceived the "scientific method" to be according to the postpositivist thinkers (Maxcy, 2003). Rather, they see mixed methods as offering a practical solution to the tensions created in the research community concerning the use of quantitative or qualitative methods. Put simply, pragmatism allows the researchers to choose the methods (or combination of methods) that work best for answering their research questions (B. Johnson & Onwuegbuzie, 2004). Morgan (2007) asserts that research questions in and of themselves are not inherently important and methods are not automatically appropriate. Rather, the researcher makes a choice about what is important and what is appropriate, based on a general consensus

in the community that serves as the researcher's reference group. He does encourage researchers to be reflexive about what they choose to study and how they choose to do so.

As mentioned under the epistemological assumption for this paradigm, Berliner et al. (2008) used a sequential mixed methods design, meaning that first they analyzed quantitative data from the district's longitudinal data set. They analyzed the data in terms of overall dropouts and reenrollments over a 5-year period, as well as by subgroups by gender and race/ethnicity. They then scheduled a site visit to the district for 1 week to interview district administrators, principals, and students. Their results are contained in a report submitted to the U.S. Department of Education, which gave them the money to do the study.

Issues Related to the Pragmatic Paradigm

Several scholars have taken supporters of the pragmatic paradigm to task because there is a difference between pragmatism as a philosophy and a "what-works" form of everyday pragmatic behavior (Denzin, 2012; Hall, 2013; Greene, 2007). Researchers who describe themselves as pragmatists put aside issues of ontology and epistemology to secure funding for their research interests and to publish their findings. In the case of these researchers, the what-works approach focuses on doing what was efficient to advance their research agendas. Such findings suggest the current usage of the term *pragmatism* has been trivialized in the field of mixed methods and that an a-paradigmatic (Greene, 2007) approach to mixed methods approaches has emerged.

EXTENDING YOUR THINKING

The Pragmatic Paradigm

Identify a research study that exemplifies the pragmatic 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)?

EXTENDING YOUR THINKING

The Four Paradigms

Four paradigms that are currently guiding research in education and psychology are presented in this chapter. Write a short paper that reflects your own ideas regarding where you stand in terms of the options for paradigms of research. Do you find yourself intrigued by or more comfortable with one than another? Do you find yourself somewhat in the middle? Are you withholding judgment until you know more? What else do you want to know? Discuss your position in terms of the axiological, ontological, epistemological, and methodological assumptions of each paradigm.

Politics, Legislation, and the Paradigms

Why Is the Methodology of Research a Political Issue?

As stated in the history of research section of this chapter, the oldest paradigm for educational and psychological research is the postpositivist paradigm. The second paradigm to enter this research world was the constructivist paradigm, which was followed by the transformative paradigm. The pragmatic paradigm is the most recent addition as a philosophical base for some mixed methods research (although it should be noted that pragmatism as a philosophical school harkens back to the days of John Dewey, William James, and George Herbert Mead). In years past, the professional literature contained many attacks by postpositivists on constructivists (and vice versa). In fact, the debates between postpositivists and constructivists were at one time called the paradigm wars. As qualitative researchers became more accepted in the methodology community, less vitriolic rhetoric was seen in the literature. Examples of transformative research became more frequent in mainstream journals as more persons who had been pushed to the margins were bringing their voices into the research community.

It seemed perhaps then an uneasy peace had sprung up among researchers, until the No Child Left Behind Act (NCLB), the reauthorized Elementary and Secondary Education Act, was passed by the U.S. Congress with the goal of supporting educational practice based on scientific evidence. The definition of scientifically based research (SBR) in the legislation displayed in Box 1.7 is closely aligned with approaches to research that are at home in the postpositivist paradigm. The intent of giving priority to this approach to research is the belief that reliable evidence of effectiveness is dependent on the use of “rigorous methodological designs and techniques, including control groups and random assignment” (No Child Left Behind Act, 2001). Very real consequences are attached to the use of this approach in terms of who will get grant funds from the federal government to study effectiveness of educational interventions. For example, the Reading Excellence Act, and its successor, Reading First, required that grant funds be used to help schools adopt those programs that incorporate “scientifically based principles” of reading instruction (G. D. Borman et al., 2007).

BOX 1.7 Scientifically Based Research Definition in No Child Left Behind^a

(Title IX, Part A, § 9101 [37])

(37) SCIENTIFICALLY BASED RESEARCH—The term scientifically based research -

- A. means research that involved the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs; and
- B. includes research that-
 - i. employs systematic, empirical methods that draw on observation or experiment;
 - ii. involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;

- iii. relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;
- iv. is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments, or across-condition controls;
- v. ensures that experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings; and
- vi. has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

a. For additional information, see the U.S. Department of Education's website dedicated to No Child Left Behind Elementary and Secondary Education Act (<http://www.ed.gov/nclb/landing.jhtml>).

Professional Organizations' Response to NCLB

The prioritizing of experimental designs in research caused quite a stir in the wider research community. Many professional associations developed critiques based on the narrow definition of research that was found in the legislation. For example, the AEA takes the position that there is not one right way to evaluate the effectiveness of a program. In response to the U.S. Department of Education's requirement of the scientific method, the AEA (2003) stated, "While we agree with the intent of ensuring that federally sponsored programs be 'evaluated using scientifically based research . . . to determine the effectiveness of a project intervention,' we do not agree that 'evaluation methods using an experimental design are best for determining project effectiveness.'"

The American Educational Research Association (2003) also expressed a similar sentiment. It did commend the U.S. Department of Education for its focus on improving the quality of research in education; however, it was concerned about the narrowness of the methods suggested for achieving that goal. Its resolution for essential elements for scientifically based research reads in part as follows:

Council recognizes randomized trials among the sound methodologies to be used in the conduct of educational research and commends increased attention to their use as is particularly appropriate to intervention and evaluation studies. However, the Council of the Association expresses dismay that the Department of Education through its public statements and programs of funding is devoting singular attention to this one tool of science, jeopardizing a broader range of problems best addressed through other scientific methods. (p. 2)

The APA took a different approach in its reaction to the NCLB. It did not criticize the narrowness of the research approach; rather, it emphasized the contribution that psychologists could make in the conduct of such research (Gaiber-Matlin & Haskell-Hoehl, 2007). It also made note of areas that are problematic in the legislation that should be addressed in reauthorization, such as violence in the schools, students with disabilities, and English Language Learners. Koretz (2008) addresses the issues of

testing as it is currently mandated under the NCLB and suggests that it has resulted in teaching to the test that results in inflated state standardized test scores, except for those students (e.g., English language learners and students with disabilities) who often do not test well using such measures. Ironically, these are the students who were left behind prior to the legislation and continue to be left behind because of the nature of the law's mandates for testing.

Legislation can be amended; in the United States, it is expected that laws will be amended each time they are reauthorized. Hence, the discussion of politics and research does not simply rest on a specific piece of legislation at a specific point in time. Rather, the debate that ensued from the requirements of NCLB with regard to research resulted in deeper discussions about the meaning of quality in research, with specific reference to the concept of objectivity.

Contested Territory: Quality, Causality, and Objectivity

The National Research Council (NRC, 2002) issued a report that contained a broad definition of scientific research in education that includes both quantitative and qualitative methods. Despite this indication of a willingness to consider a variety of methods, the NRC's report contains the claim that experimental methods are the preferred strategy, the gold standard for causal investigations. The NRC model of causality rests on the premise that we cannot observe causality; we can observe regularities in the relationships between events that can be ascertained by randomized experiments, and it dismisses qualitative approaches as a means to understanding causality.

The fundamental principle underlying the prioritizing of experimental research as outlined by the NRC is that greater quality is needed in educational (and psychological) research and that the randomized experiment is the pathway to achieve that quality based on the belief that this approach allows a researcher to determine causality by observing regularities between events in an objective manner. However, Bloch (2004) suggests that what constitutes quality in research, establishing causality, and acting in an objective way is not as simple as choosing an experimental design. She sees the determination of quality in research as contested territory and that acceptance of such a narrow way of reasoning excludes other possibilities that are important in educational and psychological research. She writes,

These exclusions would include the social, cultural, economic, and historical contexts in which the researched and the researchers are participating in research, the ways in which significant questions are defined and by whom, and the ways in which rigor and generalizability are established and by whom. (p. 101)

Maxwell (2012) further argues that qualitative approaches are necessary if researchers are to make valid and useful claims about causality in educational and psychological research because they can reveal the actual processes that resulted in a specific outcome in a specific context. Qualitative research takes into account both the specifics of the

context in terms of interventions and the broader social and cultural contexts that influence the effects of an intervention. It allows researchers to recognize the complexities and the multiple understandings of a phenomenon. He states,

Educational research, and social research generally, requires such qualitative approaches if it is to credibly identify the actual causes that influence a particular outcome, let alone make claims about the broader efficacy of any intervention. . . . The idea that randomized experiments or structural equation models can provide valid general conclusions about the effect of an intervention, in the absence of any understanding of the actual causal processes that were operating, the specific contexts in which these processes were situated, or the meaning that the intervention and contexts had for participants, is an illusion. We need qualitative methods and approaches in order to understand “what works” and why.” (p. 659)

EXTENDING YOUR THINKING

Objectivity and Relativism

One unresolved issue in the paradigm discussion relates to the tension between objectivity and relativism. Postpositivist scholars teach the student to value objectivity and the discovery of objective truth. But in the constructivist paradigm, multiple viewpoints are sought. The ontological assumption is not that there is one reality waiting to be discovered, but that there are multiple realities, depending on whose viewpoint you are soliciting. This ontological assumption has been labeled *radical relativism* by some who feel that constructivist research results only in “opinions” that cannot be substantiated. How do you respond to this dilemma for yourself?

What is your thinking about strategies for claiming a causal relationship as made by positivist through randomized controlled trials (RCTs) or Maxwell’s argument about qualitative research being essential for causal claims?

Merging Paradigms—Across Differences

Throughout the chapters of this text, the strengths and challenges associated with various definitions of quality in research are examined. Educational and psychological phenomena are discussed from a variety of perspectives through the different lenses offered by the four major paradigms. What role do different paradigms play in research practice? Because many researchers combine the use of quantitative and qualitative methods, on the surface at least, it appears that a merger of paradigms is possible. Do depictions of paradigms, such as those in Table 1.2, emphasize differences more than similarities? In Kuhn’s (1962/1996) early work on paradigms and scientific revolutions, he claimed that paradigms serve a purpose of providing a framework for discussion by researchers and that it is through that process that paradigms are changed, replaced, or modified. He did not hold the seeming incommensurability (i.e., paradigmatic belief systems do not share values or standards, hence communication across paradigms is difficult if not impossible) that is sometimes used to depict paradigmatic positions.

The permeability of paradigmatic positions is illustrated by Denzin and Lincoln's (2011b) recognition that many scholars who use qualitative methods are becoming more cognizant of the perspectives of the gendered, historically situated, interacting individual. They described an ever-present, but shifting, center in the discourses of qualitative research that was previously situated primarily in the constructivist paradigm. The center shifts as new, previously oppressed or silenced voices enter the discourse. Thus, for example, feminists and critical race researchers have articulated their own relationship to the postpositivist, poststructuralist, and critical perspectives. These new articulations then refocus and redefine previous ontologies, epistemologies, and methodologies (Denzin & Lincoln, 2011b). Denzin and Lincoln's (2005) writings connecting qualitative inquiry to social justice and progressive political action further muddy the lines between paradigms.

Postmodernism, poststructuralism, and deconstructivism add to the discussion of the permeability of the lines around the major paradigms (see Table 1.2). While these philosophical orientations emerged as a reaction against the postpositivists' belief in a certain reality, they do share much in common with constructivists (recognizing multiple realities), transformative researchers (addressing issues of power), and pragmatists (noting that decisions about methods and findings are context dependent). In many ways, these positions give credence to the possibility for researchers' abilities to talk across paradigms. Some researchers make the claim that there is an incommensurability between paradigms—that is, if you hold the assumptions of one paradigm, you cannot hold the assumptions of another paradigm because they are not compatible with each other. For example, how can you be a neutral third-party researcher and one that is closely involved in the community at the same time? R. B. Johnson and Stefurak (2013) propose that research studies can be conducted using different paradigms at the same time; they call this stance "dialectical pluralism." Most typically, this would take the form of a research team composed of people who situate themselves in different paradigms. The results of the different worldviews would yield different understandings, which could then be put into conversation (dialogical) with each other.

The field of research has not yet reached the point of full integration of paradigms. Therefore, this text presents the existing paradigms and their assumptions as starting points for thought with the hope that the framework will help clarify thinking and that the tensions will result in improved approaches to research and evaluation. Researchers should be aware of their basic beliefs, their view of the world (i.e., their functional paradigm), and the way these influence their approach to research. In this book, quantitative, qualitative, and mixed methods are explained, and the viewpoints of the various research paradigms are incorporated into the descriptions of methods. The intent is to provide as full a picture as possible of what is considered to be "good" research methodology from a variety of perspectives. This text cannot provide an in-depth discussion of the philosophical underpinnings of each perspective, each approach to research, data analysis, or construction of measurement instruments. References are provided in appropriate chapters for more in-depth information on these topics.

EXTENDING YOUR THINKING

Merging Paradigms

What is your opinion concerning merging of paradigms? What do you envision as being required for a merger to occur (if you think it is possible)?

Summary of Chapter 1: An Introduction to Research

At this point, you should understand the importance of the philosophy of science for the conduct of research. You should be able to describe four major paradigms that influence researchers and evaluators by providing them with a philosophical framework to underlie their research decisions and actions. An inadequate but essentialist description of the four paradigms is as follows: Postpositivism emphasizes objectivity, experimentation, and generalizability. Constructivism emphasizes constructed realities, interaction with participants, and rich description. Transformative researchers focus on issues of social justice, human rights, and cultural complexity. Pragmatic researchers match the research questions with the choice of research methods, as indicated by each specific study's demands. Each of these paradigms has implications for methodological decisions that are explored in later chapters. Researchers operate in the real world, and therefore they are enmeshed in the politics of the real world that are visible in government policies and professional association standards. The field of research is an active, dynamic discipline that can be seen in the discussion of the permeability and possible merger of paradigms.

Notes

1. Schwandt (2000) provides detailed background on the philosophical base of the interpretive, hermeneutic, and constructivist paradigms.
2. There are five national ethnic minority psychological associations: Asian American Psychological Association, Association of Black Psychologists, National Hispanic Psychological Association, Society for the Psychological Study of Ethnic Minority Issues (Division 45 of the APA), and the Society of Indian Psychologists. The presidents of these associations and the president (or his or her designee) of the APA constitute the CNPAAEMI.
3. Division 17 is Counseling Psychology, and Division 45 is Psychological Study of Ethnic Minority Issues.
4. Kirkhart first introduced the term *multicultural validity* in 1995; she has expanded the concept considerably in her 2005 chapter.
5. Morgan (2007) provides an excellent discussion of the basic beliefs of mixed methods researchers who work from a pragmatic philosophical base. He prefers not to use the term *paradigm*, choosing instead to describe the relevant belief systems as characterizing a pragmatic approach.