1 A BRIEF HISTORY OF RESEARCH: PARADIGMS, ETHICAL PRACTICE, AND CONTESTED TERRITORY

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IN THIS CHAPTER: OBJECTIVES

1. Identify reasons for using paradigms as organizing frameworks for methods in the research world.

2. Define the term *paradigm* and the types of assumptions that define a paradigm.

3. Describe the main assumptions of the five major paradigms: postpositivist, constructivist, transformative, pragmatic, and Indigenous.

4. Assess your own assumptions with regard to these paradigms and articulate which paradigm reflects your own worldview.

5. Discuss the political context of research and its implications for types of questions and methodological choices.

6. Formulate arguments about how causality can be demonstrated using the different paradigmatic frameworks.

7. State your thoughts on the permeability of borders between the paradigms and the possibility/benefits of bringing different paradigms together.

IMPORTANCE OF PARADIGMS IN THE HISTORY OF RESEARCH

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

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

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

Ladson-Billings and Donnor (2005) take 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. They recommend that the academy go beyond transformation to reconstruction, meaning that teaching, service, research, and scholarship would be equally valued and used in the service of furthering intellectual enrichment, social justice, social betterment, and equity.

In the spirit of full disclosure of values held by researchers, it is my position as author of this text that a researcher's philosophical orientation has implications for every decision made in the research process, including the choice of method. I agree with Shadish's (1998) argument that many of our fundamental differences in research and evaluation are not really about which method is best; rather, they are "about what assumptions we make when we construct knowledge, about the nature of many fundamental concepts that we use in our work like causation, generalization, and truth" (p. 3).

It is true that many researchers proceed without an understanding of their paradigm or its associated philosophical assumptions. However, working without an awareness of our underlying philosophical assumptions does not mean that we do not have such assumptions; it means 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.

DEFINITION OF A PARADIGM

A *paradigm* is a way of looking at the world. It is composed of certain philosophical assumptions that guide and direct thinking and action. Guba and Lincoln (2005) identify four basic belief systems characterized by the following questions that help define a paradigm:

1. The axiological question asks, "What is the nature of values and ethics?"

2. The ontological question asks, "What is the nature of reality?"

3. The epistemological question asks, "What is the nature of knowledge and the relationship between the knower and the would-be known?"

4. The methodological question asks, "What is the nature of systematic inquiry? How can the knower go about obtaining the desired knowledge and understandings?"

Research paradigms are defined as worldviews that are constituted by these four different assumptions. Within each paradigm, these assumptions provide guidance for thinking about methodological choices and frame our ability to conduct the ethical practice of research. As I believe that one's ethical stance is the beginning point for the conceptualization of research, I introduce the axiological assumption first for each paradigm. You will then be able to see how the subsequent assumptions align with the axiological assumption.

FIVE MAJOR PARADIGMS

Trying to categorize all educational and psychological research into a few paradigms is a complex and, perhaps, impossible task. Table 1.1 displays five of the major paradigms, along with a list of the variety of terms used to describe each. I provide you with the alternative labels because you will find different labels used in different texts. For example, some authors use the label *qualitative* rather than *constructivist* for that paradigm; however, qualitative is a type of methodology, not a paradigm.

The five 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), as well as more recent work describing the pragmatic and Indigenous paradigms. I adopted Lather and Guba and Lincoln's use of *postpositivist* and *constructivist* for the first two paradigms.

TABLE 1.1 ■ Labels Commonly Associated With Different Paradigms				
Postpositivist	**Constructivist**	**Transformative**	**Pragmatic**	**Indigenous**
Experimental Quasi-experimental Correlational Causal-comparative Quantitative Randomized controlled trials (RCTs)	Naturalistic Phenomenological Hermeneutic Symbolic interaction Ethnographic Qualitative Participatory action research	Critical theory Neo-Marxist Feminist theories Critical race theory Freirean Participatory Emancipatory Queer theory Disability rights theories Action research Human rights/equity focused	Mixed methods Mixed models Participatory	Culturally responsive Postcolonial

Source: Adapted from Lather (1992), Guba and Lincoln (1989, 2005), Mertens and Wilson (2019), and Chilisa and Mertens (2021).

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 *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 identified an additional paradigm that included poststructuralism and postmodernism, which she labeled *deconstructivist.* I include an explanation of postmodernism, poststructuralism, and deconstructivism in a note at the end of this chapter for the reader who wants to pursue this idea further.[1] This note also provides a rationale for why I do not include the deconstructivist paradigm in this textbook.

Neither Lather nor Guba and Lincoln 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; D. L. 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.

The Indigenous paradigm is a new addition to this sixth edition of this textbook. In prior editions, I included *Indigenous* under the transformative paradigm because I could see the common ground shared by Indigenous people and members of other marginalized communities. However, my own personal consciousness has been raised through interactions with Indigenous scholars and literature to the point that I am aware of the significant differences in the major assumptions that guide Indigenous researchers. Hence, it is past time that the Indigenous paradigm be given its rightful place in the listing of the major paradigms for researchers.

Five 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.

Postpositivist Paradigm

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

TABLE 1.2 ■ Basic Beliefs Associated With the Major Paradigms

Basic Beliefs	Postpositivist	Constructivist	Transformative	Pragmatic[a]	Indigenous
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	Social and epistemic justice; reflects relationality, respect, reverence, responsibility, reciprocity, reflexivity, responsiveness, and decolonization
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	Multiple constructed realities: grounded in material, social, and spiritual context; reflects interconnectedness of living and nonliving and relational existence
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	Knowledge is subjective, objective, and relational and includes spirituality and vision
Methodology (approach to systematic inquiry)	Quantitative (primarily); interventionist; decontextualized; mixes methods with quantitative approaches dominant	Qualitative (primarily); hermeneutical; dialectical; contextual factors are described; mixes methods with qualitative approaches dominant	Qualitative (dialogic), but quantitative and mixed methods can be used; contextual and historical factors are described, especially as they relate to oppression	Match methods to specific questions and purposes of research; mixed methods typically used	Transformative participatory lens for mixing Indigenous qualitative and quantitative methods with Western quantitative and qualitative methods

Source: Adapted from Guba and Lincoln (1994, 2005), D. L. Morgan (2007), Mertens and Wilson (2019), Chilisa (2020), and Chilisa and Mertens (2021).

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

view that what could be studied was limited to what could be observed, as well as to question the ability of researchers to establish generalizable laws as they applied to human behavior. Postpositivists still hold beliefs about the importance of objectivity and generalizability, but they suggest that researchers modify their claims to understandings of truth based on probability rather than certainty. Research methodologists such as D. T. Campbell and Stanley (1966) and Shadish, Cook, and Campbell (2002) embraced postpositivism's assumptions.

An example of research conducted within the postpositivist paradigm is summarized in Sample Study 1.1. The study is summarized according to the main categories typically included in a report of research situated in this paradigm—that is, research problem, question, methods/design, participants, instruments and procedures, results/discussion, and conclusions. The researchers in the sample study, conducted by McCarthy and colleagues (2018), explicitly chose to operate within the postpositivist paradigm, which led them to use an experimental design in order to measure the effectiveness of a program to reduce adolescent depression (Interpersonal Psychotherapy–Adolescent Skills Training, or IPT–AST) because they wanted to limit the effects of extraneous variables, such as differences between schools that the adolescents attended.

SAMPLE STUDY 1.1 SUMMARY OF A POSTPOSITIVIST RESEARCH STUDY

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

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

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

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

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

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

Conclusions: The authors concluded that the lack of significant differences between experimental and control groups might be explained by several factors. First, the control

group received group counseling that was modified to be as intensive as the treatment in the IPT–AST group. This form of group counseling is not typically provided in middle and high schools. Second, the intervention was limited to six months; other interventions that have been shown to be effective were more long term and involved students' parents and teachers, which IPT–AST does not. The positive effect for students whose families are economically disadvantaged is one indicator that this might be an approach that is more effective for this group. More research is needed to determine effective approaches for treating depression in adolescents.

Source: McCarthy et al. (2018).

In this section, I explain the characteristics of the postpositivist paradigm and its assumptions in more detail.

Postpositivism: 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 Central Intelligence Agency's experimentation with LSD, the Tuskegee experiments on Black men with syphilis, and the U.S. government's administration of radioactive substances to uninformed pregnant women stand as examples of the worst that humans can do to each other. Ethical guidelines in research are needed to guard against such obvious atrocities as these; however, they are also needed to guard against less obvious yet still harmful effects of research. All researchers in the United States who work at universities or obtain funding through government agencies are required to get approval through an institutional review board (IRB). Similar ethics review boards exist in other organizations, communities, and countries as well. The process of going through the IRB or other ethics review boards is discussed in Chapter 11, "Sampling," because the purpose of these reviews is to protect the people who participate in the research. It is important for researchers to keep in mind the ethical implications of their work throughout the entire process of planning, implementing, and using the results of their research.

Postpositivists are guided by the work of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1978), which identified three ethical principles and six norms that should guide scientific research in the landmark *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 intellectual disability or senility)

3. *Justice:* Ensuring that those who bear the risk in the research are the ones who benefit from it; ensuring that the procedures are reasonable, nonexploitative, carefully considered, and fairly administered

The six norms of scientific research are as follows:

1. The researcher must use a *valid research design:* Faulty research is not useful to anyone and not only is a waste of time and money but also cannot be conceived of as being ethical in that it does not contribute to the well-being of the participants.

2. The *researcher must be competent* to conduct the research.

3. *Consequences of the research must be identified:* Procedures must respect privacy, ensure confidentiality, maximize benefits, and minimize risks.

4. *The sample selection must be appropriate* for the purposes of the study, representative of the population to benefit from the study, and sufficient in number.

5. The participants must agree to participate in the study through *voluntary informed consent*—that is, without threat or undue inducement (voluntary), knowing what a reasonable person in the same situation would want to know before giving consent (informed), and explicitly agreeing to participate (consent).

6. The researcher must inform the participants *whether harm will be compensated.*

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

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

Postpositivist: Ontology

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

The ontological assumption in the McCarthy et al. (2018) research study exemplifies the postpositivist paradigm in that the researchers chose grades, attendance, and disciplinary incidents as their variables of interest and used quantitative measures of those variables to determine the effectiveness of their intervention. They were aware of the need to eliminate alternative explanations—which they controlled by their design of the study, but this takes us into the realm of methodology, discussed later in this chapter. They were also able to apply statistics to their data to support their findings that there was no difference between the experimental and control groups, within a certain level of probability.

Postpositivist: Epistemology

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

The epistemological assumption of the postpositivist paradigm is exemplified in the McCarthy et al. (2018) study in that the researchers did not interact with the students in the collection of data. All data came from school records. The experimental treatment was administered by research personnel who were observed by an experienced IPT–AST trainer to ensure that they faithfully implemented the program. The control treatment was administered by school counselors who completed a therapy procedures checklist to document how they implemented the group counseling.

Postpositivist: Methodology

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

A postpositivist approach to methodology is evident in the McCarthy et al. (2018) study in that the researchers used a randomized controlled experimental design that is associated with this paradigm. The researchers randomly assigned students to conditions. They summarized complex variables such as economic status (parental income) into numeric scales, but they did not include qualitative, contextual information, such as teachers' and students' experiences with the program. They described the differential effects between the groups based on family income, age, sex, and ethnicity.

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

Some researchers questioned the underlying assumptions and methodology of the postpositivist paradigm based on their concerns about the need to provide more contextual information and qualitative data to provide a more complete picture of people's experiences. 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.[2] Clegg and Slife further explain the concept of hermeneutics by citing the work of "Martin Heidegger (1927/1962) [who] argued that all meaning, including the meanings of research findings, is fundamentally interpretive. All knowledge, in this sense, is developed within a preexisting social milieu, ever interpreting and reinterpreting itself. This perspective is usually called hermeneutics" (p. 26). An example of a constructivist research study is presented in Sample Study 1.2 that used a narrative approach to explore the experiences of general classroom teachers in implementing Universal Design for Learning (Lowrey et al., 2017).

SAMPLE STUDY 1.2 SUMMARY OF A CONSTRUCTIVIST RESEARCH STUDY

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

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

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

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

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

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

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

Source: Lowrey et al. (2017).

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. In this section, I explain the characteristics of the constructivist paradigm and its assumptions in more detail.

Constructivist: Axiology

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

Lincoln (2009) developed a framework for ethical practice of qualitative research based on a revised understanding of the researcher–researched relationship. She identified the criteria for rigor as trustworthiness and authenticity, including balance or fairness (inclusive representation of stakeholders in the process of the research), ontological authenticity (making respondents aware of their constructions of reality), educative authenticity (educating others about the realities experienced by all stakeholder groups), catalytic authenticity (enabling stakeholders to take action on their own behalf), and tactical authenticity (training participants how to act on their own behalf). Lincoln also included reflexivity, rapport, and reciprocity as additional criteria that have emerged and noted that along with their emergence have come additional ethical tensions. How can a researcher from a group imbued with unearned privileges by virtue of social class, language, race/ethnicity, gender, or other attributes establish rapport in an ethical manner with people who do not share such privileges?

Constructivists also borrow notions of ethics from feminists in the form of combining theories of caring and justice as holding potential to address issues of social justice in ways that are both respectful of the human relations between researchers and participants and that enhance the furtherance of social justice from the research (Christians, 2005; Lincoln, 2009). Cannella (2022) extended the concept of ethics in critical qualitative research to take an active stance to challenge injustice, inequity, and oppression, as well as to consider the impact of our research on humans and on the environment that surrounds us. Hence, constructivists' writings on ethical principles are moving closer to alignment with those of transformative researchers (discussed later in this chapter).

Constructivist: Ontology

Constructivists assume that reality is socially constructed; it is not an entity that exists outside of the researcher that is waiting to be measured. Therefore, multiple mental constructions of reality can be constructed, some of which may be in conflict with each other, and perceptions of

reality may change throughout the process of the study. For example, the concepts of disability, feminism, and minority are socially constructed phenomena that mean different things to different people.

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

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

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

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

Lowrey and colleagues' ontological assumptions are also evidenced in their discussion of their decision to use the constructivist approach. "In this narrative inquiry project, we sought to gather stories from practitioners and hear the firsthand account of those who experience UDL framework implementation with students with moderate and severe [intellectual disabilities] in their everyday practice. Our assumption was the authenticity of teachers' voices would add to the currently scarce body of UDL-focused research and provide a springboard to further applied research in this area" (Lowrey et al., 2017, p. 236).

Constructivist: Epistemology

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

Constructivist: Methodology

Qualitative methods such as interviews, observations, and document reviews are predominant in this paradigm; however, researchers who use qualitative methods have made use of a wide array of methods such as collection of images, videos, digitally created data, photographs, and

sounds (Flick, 2022). 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 et al., 2011). This interactive approach is sometimes described as hermeneutical and dialectical in that efforts are made to obtain multiple perspectives that yield better interpretations of meanings (hermeneutics) that are compared and contrasted through a dialectical interchange involving the juxtaposition of conflicting ideas, forcing reconsideration of previous positions.

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

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

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

EXTENDING YOUR THINKING

The Constructivist Paradigm

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

Transformative Paradigm

The constructivist paradigm has been criticized not only by positivists and postpositivists but also by another group of researchers who represent a third paradigm of research: the transformative paradigm. This group includes critical theorists, participatory action researchers, Marxists, feminists, racial and ethnic minorities, and persons with disabilities, 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 use a social justice lens in their work. 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 & Wilson, 2019). 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, people with disabilities, members of the LGBTQ+ community, and others who have experienced discrimination and oppression,

as well as advocates for social justice. 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. Feminists and scholars who write about cultural responsiveness have contributed to the justification for the transformative paradigm.

Feminist Perspectives.   My first exposure to feminist psychology came from Gilligan's (1982) criticism of sociological and psychological theories because they were developed 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. 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. The common ground between the transformative paradigm and principles underlying feminist research and evaluation illustrates their commensurability.

PRINCIPLES UNDERLYING FEMINIST RESEARCH AND EVALUATION

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

Source: Brisolara (2014).

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.

Professional Associations and Guidance for Transformative Research

Many professional organizations have been active in clarifying the meaning and importance of diversity, equity, and inclusion and their implications for researchers. The American Psychological Association (APA) Task Force on Race and Ethnicity Guidelines in Psychology (2019) published guidelines to promote responsiveness and equity. The guidelines recognize the importance of dimensions of diversity that are associated with oppression and the need to be attended to: "In particular relation to race and ethnicity, intersectionality emphasizes the need to attend to heterogeneity within groups and avoid over-aggregation, including differentiating the modal experience of the specific ethnocultural groups (e.g., Lumbee Nation, Hungarian American, Mexican American) within the larger racialized group (e.g., Asian American, Black American), as well as considering the effects of privilege and oppression within the group related to other identities such as social class, gender, sexuality, ability, or other social statuses" (pp. 49–50).

In 2020, APA's Division 45, the Society for the Psychological Study of Culture, Ethnicity and Race, released a history of psychology's perpetuation of U.S. colonialism and its implications for contributing to systemic and structural barriers for Black, Indigenous, and People of Color (BIPOC) (Aiello et al., 2021). This report formed the basis for the development of APA's (2021) Equity, Diversity, and Inclusion Framework. The framework includes items compatible with psychological research that aligns with the transformative paradigm:

- Compositional diversity, social justice, and equitable outcomes for students, trainees, postdocs, and psychologists at all levels in the field of psychology. Focus on representation, fair treatment, access, opportunity, and advancement for those who are societally marginalized and historically underrepresented in the field of psychology—eliminating structural barriers and scientific practices that have prevented the full participation of these groups (e.g., eliminating white supremacy in psychological science; eliminating barriers for women accessing leadership positions in psychology). (APA, 2021, p. 10)

- Advocate and effect change on issues related to the well-being and psychological health of diverse (and particularly societally marginalized) communities, including access to and provision of inclusive and equitable psychological services and the use of psychological science to advocate for the dismantling of systemic oppression that creates and perpetuates health disparities.

- Investment in development and evolution of psychological information and educational resources, while centering the voices of those who are societally marginalized to appropriately enhance the public's capacity to inform and apply psychological knowledge to enhance individual and community well-being.

- Development, implementation, and dissemination of equitable psychological science, while centering the voices of those who are societally marginalized with the aim of a process and outcome that has a positive and equitable impact on the well-being and psychological health of individuals and communities, particularly those who are societally marginalized. (APA, 2021, p. 11)

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). Joyce E. King (2005) 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)

AERA (2006) confirmed their commitment to social justice in their Social Justice Mission Statement:

- to promote social justice principles and policies in the conduct of education research; that is, in funding of research and training;

- to promote activities (e.g., through the work of the Organization of Institutional Affiliates, in AERA's education and training programs) that foster a diverse community of education researchers; and

- to disseminate and promote the use of research knowledge and stimulate interest in research on social justice issues related to education.

The American Evaluation Association (AEA, 2011) approved a Statement on Cultural Competence in Evaluation that presents as "essential practices" acknowledging the complexity of cultural identity, recognizing the dynamics of power, recognizing and eliminating bias in language, and employing culturally appropriate methods. The AEA also updated its Guiding Principles in 2018 to reflect increased attention to issues of social justice:

Common Good and Equity: Evaluators strive to contribute to the common good and advancement of an equitable and just society.

- E1. Recognize and balance the interests of the client, other stakeholders, and the common good while also protecting the integrity of the evaluation.

- E2. Identify and make efforts to address the evaluation's potential threats to the common good especially when specific stakeholder interests conflict with the goals of a democratic, equitable, and just society.

- E3. Identify and make efforts to address the evaluation's potential risks of exacerbating historic disadvantage or inequity.

- E4. Promote transparency and active sharing of data and findings with the goal of equitable access to information in forms that respect people and honor promises of confidentiality.

- E5. Mitigate the bias and potential power imbalances that can occur as a result of the evaluation's context. Self-assess one's own privilege and positioning within that context. (AEA, 2018)

Transformative 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, 2018), participatory action research (Reason & Bradbury, 2006), feminist researchers (Brisolara, Seigart, & SenGupta, 2014; Hesse-Biber, 2014b), critical ethnography (Madison, 2012), culturally responsive research and evaluation (Hood, Hopson, & Frierson, 2015), disability researchers (Mertens & McLaughlin, 2004; 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 (1970) 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 (Christians, 2005).

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

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

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

She criticizes the critical and feminist scholars as follows:

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

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

Queer/LGBTQ+ Theory.   Researchers who work in the LGBTQ+ community express concern about the lack of critical reflection on how meaning-making about gender and sexual identity is not only about the context but also about the socially constructed identity of the individual in the setting. Queer theory (sometimes labeled LGBTQ+ theory) has emerged as a way to challenge the hegemony inherent in the two-dimensional separation of male and 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 Rights Theory.   More complexity is added by those who have written of a new paradigm for the disability community (Mertens & McLaughlin, 2004; 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, Sullivan (2009) notes that maybe it is time for the disability community to walk side by side with nondisabled researchers using the transformative paradigm in the search for social justice.

EXTENDING YOUR THINKING

Oppression

Is it appropriate to use the "umbrella" term *oppression* to include the experiences of women, racial/ethnic minorities, immigrants, LGBTQ+ individuals, older persons, members of minority religious groups, persons with disabilities, or persons who are Deaf? Why or why not?

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

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

An example of a transformative mixed methods research study is illustrated in Sample Study 1.3. This is followed by an explanation of the specific transformative assumptions.

SAMPLE STUDY 1.3 SUMMARY OF A TRANSFORMATIVE MIXED METHODS RESEARCH STUDY

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

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

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

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

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

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

one way to teach values of solidarity and cooperation, but they were skeptical of its power because of the limited amount of time they have with students.

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

Source: Based on Schmalenbach (2018).

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

- How transformative researchers critique and extend the principles of respect, beneficence, and justice on several fronts. Respect is critically examined in terms of the cultural norms of interaction in diverse communities and across cultural groups. This includes respect for dignity and worth of the community members and the right to know and understand transparently (Key, 2017). Beneficence is defined in terms of the promotion of human rights and an increase in social justice. The research should maximize the benefit for the group and the individual in the present day as well as in the future (sustainability). An explicit connection is made between the process and outcomes of research and evaluation studies and furtherance of a social justice agenda. There should be a fair distribution of costs and benefits across the community.

- Human rights initiatives through the United Nations reinforce the need to be aware of those whose rights are not respected worldwide.

- The codes of ethics from relevant professional associations and organizations provide guidance for researchers and evaluators as to what constitutes ethical practice. As mentioned previously, those codes of ethics have been critically reviewed and revised to reflect a greater concern for principles that are reflective of the axiological assumptions of the transformative paradigm. The AEA modified its guiding principles to include an explicit principle related to serving the common good in ethical evaluation practice. The APA's 2002 ethics code was amended in 2016; it takes a strong stance about protection of people in research that involves deception. Ethics in psychology has been extended by Brabeck and Brabeck's (2009) application of feminist principles in psychology.

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 bookstore, 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. 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 Hearing Loss Association of America. Collaboration should not be limited to conversations with leaders, although building relationships with these initial contacts can be a way of learning how to appropriately access other members of the Deaf community.

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

Transformative 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.

Schmalenbach (2018) recognized that multiple perceptions of the nature of the problem and solutions for teaching effectively in a context fraught with violence exist. Some of the ways of perceiving the nature of the problem are harmful, such as assuming that the students cannot be taught to cooperate because their culture teaches them to be aggressive and competitive. The researchers deliberately set out to understand the perceived reality of the nature of the problem and potential solutions by building relationships with students, parents, and teachers.

Transformative 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, but 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, 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. 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 Schmalenbach (2018) study, not only in the participatory approach to constructing the research focus but also in the collaboration that functioned throughout the entire 12-month research period. She knew that entry into the neighborhood would not have been safe for a nonresident, so she gained entry through a partnership with an NGO that was well established there. She spent a great deal of time getting to know the NGO staff, the school principal, teachers, students, and their parents. One of the most striking changes came about because she nurtured relationships with the children who initially were suspicious and not forthcoming about their experiences. However, she informed them that they were "experts" in their experience with cooperative learning and could advise her and the teachers about that. The students gradually opened up with her, and her final description of their interactions reveals the quality of their relationships:

> The children from the *comunidad* will always hold a special place in my heart. Their courage, excitement and perseverance in trying out and reflecting on unknown teaching methods were inspiring. They took their roles as experts on their own learning process seriously and gave me feedback on what they did or did not find helpful. At the same time, they were very patient teachers when it came to local slang and customs. (p. viii)

Transformative Methodology

Scholars writing from the perspectives of feminists, racial/ethnic minorities, poor people, and people with disabilities have commonly expressed dissatisfaction with both the postpositivist and constructivist paradigms of inquiry (Mertens & Wilson, 2019; Neubauer et al., 2020). 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; many use mixed methods, combining quantitative and qualitative methods. Some transformative researchers prioritize the use of 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, consciously addressing inequities, and providing a basis for transformative change in the form of increased justice.

Schmalenbach (2018) 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. Her primary research approach was ethnographic, focusing on culture and context through collection of data by document review, observation, and interviews (both individual and group). She conducted a quantitative survey during the course of the research to gain a broader perspective about the issues she was studying. She allowed each stage of data collection to inform the next stage. The interview questions evolved over time and were adjusted based on feedback from the teachers and the coworkers at the NGO. The development and implementation of the intervention was done in a conscientiously participatory manner with the teachers and their students.

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,"[3]

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? 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.[4] It should be noted that mixed methods research can be used within any of the paradigmatic frameworks; however, the choice of methods will be informed by the assumptions held by each researcher. The text here will focus on the pragmatic paradigm as described by Tashakkori and Teddlie (2010), Maxcy (2003), and D. L. Morgan (2007).

Historically, pragmatism can be divided into an early period from 1860 to 1930 and a neo-pragmatic 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; D. L. 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')" (D. L. 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 1.4. This is a study of classroom strategies that can be used to increase student engagement (Husain, 2022).

SAMPLE STUDY 1.4 SUMMARY OF A PRAGMATIC MIXED METHODS STUDY

Research Problem: Students in higher education (or at any level really) are often distracted during class by their mobile gadgets. Teachers want to increase student engagement by increasing the quality and interactive nature of teaching and learning.

Research Question: "Can we do anything to make our classroom more interactive with conversation and discussion?" (Husain, 2022, p. 87).

Method: A pragmatic sequential mixed methods design was used that started with the collection of quantitative data and included ongoing collection of qualitative data to provide answers to the research question. The researcher started with quantitative data collection via a survey on the first day of class, followed by semi-structured interviews with students and classroom observations.

Participants: The study took place at a Canadian university between January 2014 and May 2020. The author said he spoke to approximately 800 student volunteers, who were

between 18 and 60 years of age. These students represented various departments, including Anthropology, Critical and Creative Studies, History, Indigenous Studies, Kinesiology, Philosophy, Political Science, Psychology, and Sociology. He did not provide specific numbers for the quantitative or qualitative portions of the study.

Instruments and Procedures: The quantitative portion of the study involved the use of an anonymous survey that asked students about their favorite celebrities, singers, and TV programs; their use of social media; and their consumption of coffee and tea. The qualitative portion of the study consisted of semi-structured, nondirective, and open-ended interviews with students individually or in groups in the teacher's office. He also collected qualitative data through informal class observations. He developed and implemented an intervention called MAJA: music, anonymous survey, jest, and aliment. He played soft music from the students' favorite musicians and provided fruit snacks at the beginning of class.

Results: The researcher observed the students were positively surprised and inspired to be present and engaged when they heard a song from their favorite musician. The quantitative data from the survey were used to generate discussion, such as pointing out that Beyoncé and her partner's worth was over $400 million. This was used to explore socioeconomic inequality. Framing this discussion with reference to the students' favorite singer resulted in a more positive, engaging, and interactive classroom environment. The researcher offered fruit bars at the beginning of class (aliment); this was greatly appreciated by the students. Using this framework, the researcher noted that he had high attendance and zero abstenteeism.

Discussion: The data support the idea that there are many things that a teacher can do to increase engagement of students in the classroom. These strategies can be used as a basis for personalizing the course content in ways that reflects the students' interests.

Source: Based on Husain (2022).

Pragmatic 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 (D. L. 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). Husain (2022) collected his data without institutional ethical review because it was all part of his own efforts to improve his teaching. He did make certain that "every observation and data collection was guided by ethical checklists that are underpinned by data protection policies, to ensure the security and dignity of students who voluntarily participated in this research" (p. 91).

Pragmatic 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 intersubjectivity 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 (D. L. 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! (Maxcy, 2003, 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 (D. L. Morgan, 2007, p. 68).

In Husain's (2022) study, the researcher gathered data that focused on the differences he observed based on the changes he made in his teaching methods. He set out to determine what actions teachers could take that would increase meaningful interactions in their classrooms. He addressed a very practical problem and used the data to demonstrate that the intervention did make a difference based on his interpretation of his observations and interview data.

Pragmatic 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; D. L. 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).

Husain (2022) invited students to stop by his office to give him feedback on the course. By developing personal relationships with his students, he believed that it would make them more comfortable to share ideas for how to make the class a better learning experience. His role was to keep the students on topic while eliciting their narratives. The survey at the beginning of the course was anonymous so that students would feel free to answer the questions honestly.

Pragmatic 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. D. L. 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 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.

Husain (2022) used a sequential mixed methods design, meaning that first he collected quantitative data and used the results to refine the intervention. He then collected qualitative data in an ongoing manner via interviews and observations. He used his results to improve his teaching strategies with a goal to increase student engagement; he also published his results in an academic journal to share with the higher education community.

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; Greene, 2007; Hall, 2013). 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 is 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)?

Indigenous Paradigm

The need to reexamine our beliefs as researchers about the worldview of Indigenous people and its implications for research 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)

There is no single Indigenous voice that is the authority on the meaning of the Indigenous paradigm. Moreover, there is no universal agreement that Indigenous understandings of research should be characterized as a paradigm (Cram et al., 2013). Chilisa (2020) writes about the Indigenous paradigm and explicates the philosophical assumptions associated with that paradigm. She and other Indigenous scholars (Pidgeon, 2019; R. Wilson, 2003) argue that it should be considered as a separate paradigm with its own set of philosophical assumptions. For Indigenous peoples, there is a distinctive axiology, ontology, and epistemology that leads to culturally responsive methodologies. While the transformative and Indigenous paradigms share the goal of increased justice, the Indigenous view of transformation is different; their transformative goal is to have their rights and sovereignty recognized, to challenge colonization, and, where applicable, to restore their lands.

Sample Study 1.5 provides an illustration of the application of an Indigenous framework in a study of youth resilience in inner-city Canada (Bird-Naytowhow et al., 2017; Morton et al., 2020).

SAMPLE STUDY 1.5 SUMMARY OF AN INDIGENOUS STUDY

Research Problem: Indigenous youth in urban environments face adversity in the form of structural inequality, poverty, racism, and the effects of colonialism. This study focused on the resilience and perseverance of Indigenous youth as a pathway to healthier living.

Research Question: How can Indigenous youth be involved as coresearchers to ensure that "the research informs action in a manner grounded in the values, beliefs, knowledge, and needs of those it intends to impact"? (Bird-Naytowhow et al., 2017, p. 5)

Method: This study consciously applied an Indigenous framework to a participatory action research strategy that included building a research team from different cultural and ethnic backgrounds; consulting with Indigenous community elders, parents, and members of tribal organizations; and establishing a community advisory research committee (CARC). As Indigenous youths' perspectives in research that purports to serve their interests are not commonly involved in ways that respect their knowledge and experiences, the study was structured to include the youth as coresearchers. The youth provided advice on how and what data were collected, what parts of their stories were shared, and the ways their stories were utilized. They also participated in workshops to build their capacities in data collection and use.

Participants: The study was a part of the Youth Resilience Project that took place in one Canadian urban environment of Saskatoon, Saskatchewan. Purposeful sampling began by recruiting self-identifying Indigenous youth through existing relationships with local organizations and the CARC that are actively engaging with youth in the community. Additional sample members were solicited from the original group (snowball sampling) to identify interested youth who brought friends and family members to join the process. Participants/coresearchers included 28 youth (15–25 years; 12 male/16 female) who self-identified as having Plains Cree ($n = 21$) and Metis ($n = 7$) cultural backgrounds. Ten of these youth were chosen to participate in follow-up interviews.

Instruments and Procedures: The researchers followed Plains Cree Indigenous cultural protocol throughout the study. The period of time spent relationship building is part of this protocol, as is consultation with the tribal council. The establishment of the CARC was also a manifestation of relationship building that included the youth. The youth agreed that the use

of photovoice would be an appropriate way to reflect on their resilience and ways to improve their community. The researchers employed an Indigenous leader to conduct capacity-building workshops once per season (winter, spring, summer, fall). The intent was to enhance the youth's photography skills but also to give them an "opportunity to articulate their reflections on the research project in general and what they are learning about the processes of and strategies for resilience in particular" (Bird-Naytowhow et al., 2017, p. 9). In addition, the researchers conducted "talking circles" interviews. As a part of the relationship building, they engaged in "regular meal sharing, such as guardian appreciation feasts, barbecues on the riverbank and lake, and reflections or storytelling by the fire, . . . sacred fires out of the city, a local ceremonial sweat lodge, and a 2-day excursion and overnight camping" (Bird-Naytowhow et al., 2017, p. 5).

Results: The conscious choice to prioritize culturally responsive relationships resulted in breaking down the traditional hierarchical relationships in research.

Throughout the engagement activities with youth, healthy ceremonies of relationships were fostered by allowing the youth to feel welcomed into a co-constructed research environment, established by the community, where a principle of respect for the contributions of all was upheld. These spaces encouraged further relationship building among the youth collaborators, their families, and the research team. These activities further supported the effort for wider community engagement and provided direct and positive lived experiences to the youth and research team (Bird-Naytowhow et al., 2017, p. 9

The photos that were taken were used to elicit stories that reflected the youth's concerns and aspirations. The youth shared their photos at a 3-week public art installation, as well as at professional conferences to support wider transformative changes.

Discussion: The researchers acted upon the principle that data collected in Indigenous communities should be owned by those communities. The youth had the final say in what would happen to their stories; the data that they agreed to share are held in ownership with the Saskatoon Tribal Council. The results were used to strengthen the mission statements of organizations that serve the Indigenous youth in the Saskatoon area. As governments acknowledge the role they play(ed) in the oppression of Indigenous people, the processes used in this study offer support for the reconciliation and social justice needed for these communities.

Source: Based on Bird-Naytowhow et al. (2017); Morton et al. (2020).

Indigenous Axiology

The Indigenous axiological assumption is centered on the core principles of "relationality, respect, reverence, responsibility, reciprocity, reflexivity, responsiveness, and decolonization" (Chilisa & Mertens, 2021, p. 246). Relationality emphasizes the interconnectedness of all humans and the environment surrounding us; community strengths are valued. Researchers have a responsibility to support the enhancement of social, economic, and environmental justice and to resist methodologies that silence local communities. Reverence brings in a topic that is seldom included in other paradigms—that is, that spirituality and values are important contributors to ways of knowing and inform understandings of sacred spaces (Chilisa, 2020). Reciprocity asks about the fundamental value of the research and what benefits the proposed intervention has for the community. "For example, the African ethical principle of *motho ke motho ka batho* holds that [researchers] have an ethical responsibility to design their work to support positive transformation in the human and physical world because we are all related" (Chilisa & Mertens, 2021, p. 246). Respectful representation and reflexivity mean that the researcher critically reflects on how to engage the community so that they inform all aspects of the research, from the formulation of research questions to the use of the findings. Furthermore, researchers need to act on the guidance provided by Indigenous ethical protocols and ensure that their work does not sustain the oppression that results from colonization.

Researcher guidelines are also available from Indigenous communities that provide insights into ethical grounding of research and evaluation from that perspective. As illustrated in Sample Study 1.5, Bird-Naytowhow et al. (2017) followed the protocol for the Cree nation. Many Native American and First Nations people have developed ethical principles that require that the researcher communicate the intended research agenda, design, activity, and reports with members of the host community (Angal et al., 2016; LaFrance & Crazy Bull, 2009). The research should be designed in such a way as to bring benefit to the host community and to foster the skills and self-sufficiency of host community scientists. Other Indigenous communities have provided specific guidelines, such as members of the Maori community in New Zealand (National Ethics Advisory Committee, 2019; Hudson et al., 2010) and the Australian Aboriginal and Torres Strait Islander communities (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2020).

Indigenous Ontology

The Indigenous ontological assumption is based on the concept of reality that all things, human and nonhuman, are connected (Chilisa, 2020). In this version of reality, humans are in relationship with the land, the sea, the animals, the plants, the air, and the cosmos. Reality is relational, contextual, and culturally bound. Reality needs to be considered through a historical perspective, where it is located, and who lives in that land. In order to understand Indigenous reality, the Indigenous people themselves must be the ones who have power to initiate and design the research and any interventions associated with the research.

The researchers in the Bird-Naytowhow et al. (2017) study were very conscious of the relational nature of Indigenous reality. This led them to confer with the tribal elders, as well as with youth, and to form relationships that were manifest in the community advisory committee, as well as in the flow of the research study. The development of the research approach occurred through community interaction; this emphasis on relationships as ways to understand realities was part of all the research activities.

Indigenous Epistemology

Indigenous epistemology is also based on a relational concept of knowing and the prioritization of Indigenous knowledge to inform the research study (Chilisa, 2020). A relational concept of knowing means that no one person holds knowledge; rather, knowledge is created through dialogue and a network of relationships. These relationships need to be developed in a culturally responsive manner that adheres to cultural and ethical protocols. The African concept of *Ubuntu* illustrates the importance of relational epistemology. It literally means "'I am because we are' . . . *Ubuntu* offers guidance with regard to the researcher's responsibilities and obligations to the researched and promotes community, belongingness, togetherness, and well-being" (Chilisa, 2020, p. 25). It is a natural extension of the Indigenous ethical assumption to its ontological and epistemological assumptions.

Indigenous epistemology is reflected in the Bird-Naytowhow et al. (2017) study through the adherence to Indigenous protocols in the gatherings that occurred during the research. The researchers offered food and sacred ceremonies that involved tobacco and sage as ways to be culturally responsive in building their relationships. The full research team (including the youth co-researchers) chose data collection methods that were interactive in the learning process, implementation of the data collection, and interpretation and use of the results. For example, the photovoice activities reflected the understanding that Indigenous knowledge follows circular

patterns that may be repeated through many cycles of an individual's life. Hence, the research team chose to situate the photovoice activities in the four seasons of the year. They also integrated the four seasons with the four human dimensions that make up the medicine wheel (i.e., the emotional, mental, physical, and spiritual parts of a human person) into the explorations of the meaning of the photos that the youth produced.

Morton et al. (2020) expanded on their integration of Indigenous ontology and epistemology by explicitly integrating connections with the land and the environment in the framing of their design:

> When conceptualizing relationships to "land" and natural environments, such perspectives suggest we re-locate the place-based study of resilience and health away from human-centric frameworks that emphasize social relations toward relational Indigenous ontologies that recognize the sentience, animacy, and spiritual embodiment of human-nature relations. Recognizing these agential capacities does not demand we believe other-than-human agents possess intention, desire, and choice. (p. 2)

This stance toward connections with the land and environment influenced their methodological decisions described in the next section.

Indigenous Methodology

The Indigenous methodological assumption is first and foremost focused on decolonization. "Postcolonial Indigenous research techniques include a process of decolonizing the conventional interview technique, using Indigenous interview methods, such as talking circles, and invoking Indigenous knowledge to inform alternative research methods compatible with the worldviews of the colonized Other" (Chilisa, 2020, p. 26). Indigenous methodologies align with the Indigenous axiological, ontological, and epistemological assumptions in that decisions about methodology reflect the relationships with humans and the environment in ways that promote social, economic, and environmental justice (Morton et al., 2020).

The methodological approach taken in the Bird-Naytowhow et al. (2017) study illustrates the application of the Indigenous methodological assumption. As already mentioned, the data collection involved a combination of situating the research activities in the four seasons and the four human domains. The methods were predicated on the prioritization of Indigenous knowledge (IK) that informed understandings of the status quo of urban Indigenous youth. The creation of safe spaces in the training workshops and the talking circles "enabled the youth to ask questions they may not have felt comfortable voicing otherwise, for instance, around notions of ceremony, IK, or the role of elders in society. In many ways, these spaces and strategies made this project 'transformative' (Mertens, 2009), in that we opened safe space for the youth to gain insights into resolutions to problems they face by creating opportunities for positive reflection and empowerment" (Bird-Naytowhow et al., 2017, p. 6).

Morton et al. (2020) elaborated on the choice of photovoice in the Youth Resilience Project study, saying that the youth were encouraged to photograph and discuss perspectives of the land and the environment around them as related to their own resilience across the four seasons. The experience was described as part of a healing process: "Photovoice allowed participants to relate to and connect with oneself and other kinds of life, including other people, nature, and ancestral and spiritual ties that were positive, enjoyable, and contributed to emotional, spiritual, and mental health and wellbeing" (Morton et al., 2020, p. 5).

EXTENDING YOUR THINKING

Identify a research study that exemplifies the Indigenous 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 Five Paradigms

Five 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? For the paradigm that most reflects your assumptions about ethics, reality, relationships and knowledge, and methodology, discuss your position in terms of the axiological, ontological, epistemological, and methodological assumptions of your chosen 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 came to more visibility 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. The Indigenous paradigm is relatively new in the academic literature but reflects knowledge that Indigenous people describe as older than the rivers and the hills (Cram et al., 2013).

It seemed perhaps then an uneasy peace had sprung up among researchers, until the No Child Left Behind Act (NCLB) of 2001, the reauthorized Elementary and Secondary Education Act, was passed in 2002 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 was 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; see also Harbor House Law Press, 2003). 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.

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 AERA (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. 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).

Legislation can be amended; in the United States, it is expected that laws will be amended each time they are reauthorized. The NCLB legislation was replaced in 2015 with the Every Student Succeeds Act; it is less restrictive in the research methods that are viewed as acceptable for federal funding. 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 political nature of methodological decisions is also reflected in the National Research Council's (NRC, 2002) 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 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, other researchers argue for a more expansive understanding of how to demonstrate causality. 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: Demonstrating Causality

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 positivists 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 (2018) 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 and critical perspectives. These new articulations then refocus and redefine previous ontologies, epistemologies, and methodologies (Denzin & Lincoln, 2018). Denzin and Lincoln's (2005) writings connecting qualitative inquiry to social justice and progressive political action further muddy the lines between paradigms.

Indigenous scholars have written about the expansiveness of their framework to include other paradigms, while still prioritizing the Indigenous assumptions. For example, Mertens and Cram (2015) acknowledge the tension in trying to put Indigenous research into a Western-developed structure. They put forth the argument that the transformative paradigm shares common ground with the Indigenous paradigm, even while each has uniqueness. The partnering of these two paradigms can serve 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. Chilisa (2020; Chilisa & Mertens, 2021) also argues that researchers benefit when they recognize the permeability of the borders between paradigms, with the caveat that researchers in Indigenous communities prioritize the Indigenous paradigm while benefiting from the contributions of other 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 frameworks serve to clarify thinking about our assumptions, and that the tensions that arise between paradigms 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 five major paradigms that influence researchers and evaluators by providing them with philosophical frameworks to guide their research decisions and actions. An inadequate but essentialist description of the five 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. Indigenous researchers prioritize decolonization, relationships, and interconnectedness with the natural world. 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.

IN THE NEXT CHAPTER

The next chapter takes up the topic of evaluation as a territory of systematic inquiry that shares some characteristics with research and has some uniqueness of its own. Evaluation's role in the world of systematic inquiry is explored, and its characteristics are illustrated by different studies that exemplify the five paradigms.

NOTES

1. There is good news and bad news about postmodernism, poststructuralism, and deconstructivism, and both the good and the 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:

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

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

Despite the difficulties in pinning down definitions of postmodernism, poststructuralism, and deconstructivism, scholars from these orientations contribute to the debates of rigor in research in a number of ways. Postmodernism, poststructuralism, and deconstructivism add to the discussion of the permeability of the lines around the major paradigms. While these philosophical orientations emerged as a reaction against the postpositivists' belief in a certain reality, they do share much in common with constructivism (recognizing multiple realities), transformative research (addressing issues of power), and pragmatism (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.

2. Schwandt (2000) provides detailed background on the philosophical basis of the interpretive, hermeneutic, and constructivist paradigms.

3. Kirkhart first introduced the term *multicultural validity* in 1995; she has expanded the concept considerably in her 2005 chapter.

4. D. L. 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.