Mixed Methods and Credibility of Evidence in Evaluation

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Abstract

We argue for a view of credible evidence that is multidimensional in philosophical and methodological terms. We advocate for the importance of deepening the meaning of credible evaluation practice and findings by bringing multiple philosophical and theoretical lenses to the evaluation process as a basis for the use of mixed methods in evaluation, thus providing evaluators with strategies for garnering more complex and diverse perspectives on the creation of credible evidence. ©Wiley Periodicals, Inc., and the American Evaluation Association.

Understanding mixed methods approaches in evaluation involves understanding the philosophical stances, theoretical perspectives, and practical strategies that have emerged in the research and evaluation worlds associated with advances in mixed methods. In this chapter, we provide a broad picture of advances in mixed methods related to philosophy, theory, and practice in the evaluation context.

What Is Mixed Methods?

In general, evaluators who use mixed methods employ designs that use both quantitative and qualitative data collection and analysis techniques to
answer a particular question or set of questions in evaluations. It is important to understand that mixed methods is not just about (mixing and combining) methods. The use of any given method or set of methods in an evaluation is also tightly linked to specific epistemologies, methodologies (theoretical perspectives), and axiological assumptions, as well as being connected to particular stakeholder perspectives (Giddings, 2006; Greene, 2007; Hesse-Biber, 2010; Smith, 1987).

More specifically, evaluation questions are grounded in a particular philosophical paradigm or standpoint regarding the nature of reality (ontology) and what can be known (epistemology). Methodology provides the theoretical perspective that links an evaluation problem with a particular method or methods. Methodologies— theoretical perspectives on social reality—flow from one’s assumptions about reality: Is it knowable? Is there a single reality out there, waiting to be found? Is reality socially constructed, consisting of multiple realities?

Evaluators’ philosophical assumptions, including those associated with methodology, lead evaluators to ask certain questions and prioritize what questions and issues are most relevant to the evaluation. Evaluation studies within and across disciplines can hold a range of different methodologies that frame their methods practices: those methodologies that hold up the importance of studying the “lived experience” of individuals (interpretative methodologies); those methodologies that privilege the importance of hypothesis testing and causality as the most important goal of social inquiry (positivist and postpositivist methodologies); those methodologies that stress issues of power and control and social justice (transformative, feminist, and critical methodologies).

We can think of methodology as both the theoretical and procedural link that brings epistemology and method together: defining the type of evaluation, how the evaluation process should proceed, what methods to select, and how they are employed to get at the evaluation problem. A methodology can be revised during the evaluation to the extent to which an evaluator’s epistemological beliefs allow for revisions. In fact, mixed methods are often discovered as a result of modifying more conventional evaluation projects when traditional methods fail to get at the aspect of social life the evaluator is interested in (Hesse-Biber, 2010). Jennifer Greene captures well the distinction between method and methodology:

Most . . . methodologies have preferences for particular methods, but methods gain meaning only from the methodologies that shape and guide their use. . . . An interview does not inherently respect the agency of individual human life; it only does so if guided by and implemented within a methodological framework that advances this stance. So, any discussions of mixing methods. . . . must be discussions of mixing methodologies, and thus of the complex epistemological and value-based issues that such an idea invokes. (Greene, 2002, p. 260)
Greene and her colleagues note that methods are tools and their practice requires the evaluator to be conscious of the methodological perspective(s) they employ within their evaluation project that demands “thoughtful mixed method planning,” whereby there is reflexivity practiced with regard to one’s methodological standpoint. Each evaluator should strive to “figure out one’s stance on the ‘paradigm issues’ in mixed method enquiry” (Greene, Benjamin, & Goodyear, 2001, p. 30). Good mixed methods practice then demands “consciousness of this organizing framework and adherence to its guidance for enquiry practice . . .” (p. 30).

**Synergy and Mixed Methods Evaluation Designs**

Some of the most important problems and prospects of deploying mixed methods evaluation designs across the evaluation process involve issues of mixing paradigmatic approaches, as well as combining forms of data collection and analysis; tackling the issue of “when” and “how to” deploy mixed methods evaluation designs to achieve the synergistic promise of mixed methods to enhance the credibility of evaluation findings; and the range of opportunities for doing so within a mixed methods evaluation design and implementation.

Mixed methods approaches are often portrayed as synergistic, in that it is thought that by combining two different methods (i.e., quantitative and qualitative), one might create a synergistic evaluation project, whereby one method enables the other to be more effective and together both methods would provide a fuller understanding of the evaluation problem (Greene & Caracelli, 1997).

Yet the question remains as to just how such a synergistic promise of mixed methods can be harnessed by evaluators and just how doing so can enhance the credibility of an evaluation. Specifically, how does an evaluator assess whether adding another perspective and/or method to the evaluation study enhances credibility? It may in fact be the case that a monomethod design may be more advantageous and less costly. The importance of examining paradigmatic points of view reenvisions the concept of credible evidence as a highly complex concept that goes beyond the definition of getting it right. Evaluators have multiple pathways toward obtaining credible evidence. Depending upon where an evaluator stands (his/her given paradigmatic stance), the conceptualization of what credible evidence is also changes and becomes much more complex and nuanced. Its valence in terms of how important it is to the evaluation process also changes. For a positivist, evidence is in the form of one truth that is out there and thus the method to obtain this evidence as truth is the deployment of an RCT design that seeks to “control” for internal and extraneous factors that might bias the seeking out of truth. Subjective perspectives of what credible evidence is have a far different concept of truth and note that “evidence” is a not a singular and fixed entity. Instead truth is conceptualized as multiple and
socially constructed and therefore the goal of evaluation is to unearth the range of subjective and often subjugated understandings of what is “truth” or “credible evidence” from the perspective/experience of the stakeholders. This is a concept of credibility that expands and complicates the possibilities of understanding the social world and in so doing expands the knowledge base of what is considered to be credible evidence.

The evaluation community stands at an important point in history in which the need for methodological and methods strategies with which to examine and achieve the range and diverse perspectives of credibility is of utmost importance. Innovations in the mixed methods field have the potential to move the field of evaluation toward a more inclusive, socially just process than is possible with a monomethod approach. This goal can be achieved by centering the importance of taking into account and being reflexive about what paradigmatic approaches we bring to an evaluation project and critically examining the ways of knowing that enhance the complexity of what it means to gather credible evidence.

**Evaluation Paradigms and Mixed Methods**

The interdisciplinary landscape of mixed-methods evaluation is rich and can accommodate a range of paradigmatic approaches to the evaluation process. Philosopher Thomas Kuhn (Kuhn, 1962) introduced the concept of “paradigm” to the scientific community by arguing that the practice of science is usually characterized by a particular paradigm, or way of thinking. He asserts that all knowledge is filtered through a paradigm or set of paradigms that are currently dominant within a particular discipline or field. A paradigm is a theoretically constructed worldview that provides the categories and concepts through and by which science and social science constructs and understands the world. A paradigm tells us what is there and what is not, what is to be taken seriously and what is not, what are data and what are not. Kuhn argues that there are no facts that are paradigm free or theory independent, because those that we regard as facts can differ according to the worldview or paradigm we live and work within. Kuhn points out that the reasons why one paradigm wins out over another are primarily political in nature—often it is irrational and subjective phenomena that affect the development of science. The paradigm that emerges victorious is the one that has the most converts—it need not have the greater explanatory power. There is, then, a politics involved in knowledge-building enterprise.

The field of mixed methods contains a range of competing epistemological, theoretical, and methodological paradigms that have been deployed by the mixed-methods community in general and by evaluators in particular. The authors in this Special Issue address a range of some of these epistemological and theoretical leanings that are especially relevant to evaluation and also spell out and engage with their foundational
assumptions. Contained within any paradigmatic worldview are important philosophical assumptions an evaluator brings to an evaluation project—
their specific view of reality (ontology); their theory of knowledge building (epistemology) that asks such questions as: How do we know what we know? This query covers inquiries such as: Who can be a knower? What can be known? How is knowledge constructed? Any evaluation process starts with a conscious and/or unconscious set of assumptions with regard to these metaphysical stances. For example, what a given evaluator knows or assumes to be true and what he/she wants to know as a result of the evaluation process is the basis of his or her epistemology. An evaluator's epistemological base, then, impacts every phase of the evaluation process including any subsequent theoretical (methodology) and methods choices.

A theory (methodology) can be broadly thought of as an explanation of the workings of the social world, or a segment of it, which reaches outside what is a known empirical reality. To varying degrees, and varying degrees of consciousness, evaluators apply theory during the evaluation process. Methodology and methods are intimately linked to one another, with methods serving as tools for gathering and analyzing the empirical world. Although epistemology deals with fundamental questions about knowledge, methodology refers to an evaluator's combining of theory and methods within the evaluation process.

Lincoln, Lynham, and Guba (2012, p. 100) have characterized and categorized five paradigmatic perspectives that they assert are umbrella terms to denote the range of paradigmatic approaches to knowledge building: positivism (contains realist and hard science approaches), postpositivism (they term as a modification of positivism), critical theory (such as feminism and race perspectives, the goals of which are to create change for women and other oppressed groups), constructivism (an interpretative approach that gets at subjective meanings), and participatory/cooperative (including postmodern approaches where knowledge is based on participative reality on transformation and lived experience with awareness of the importance of cocreation of meaning between evaluators and stakeholders). This categorization of paradigms also contains assumptions about ethical praxis and value choices. It is important to stress that this categorization into five paradigmatic stances allows the evaluator to compare and contrast a range of knowledge-building stances. The act of categorization itself is socially constructed and has aspects of what Kuhn notes as the “politics of knowledge building.”

When Lincoln and Denzin were queried about the possible confusion of labeling a paradigm as critical theory et al. and participatory/cooperative, they responded as follows:

With respect to the paradigm-theory distinction: For us, a paradigm is a metaphysics, an integrated philosophical statement which encompasses
positions on ontology (what we believe the nature of reality to be), epistemology (what we believe can be known about that reality . . . and the best ways for coming-to-know), and axiology (the role of values, aesthetics within any inquiry) . . . Paradigms are the overarching cosmological statements to which we subscribe when we engage in research [evaluation]. . .

Theories are statements, usually integrated statements, within paradigms that give us some model or format for thinking about a phenomenon . . . [T]heories and paradigms are commensurate; that is, they exhibit resonance, such that theories are nested within and under paradigms. Paradigms do not contain theories which violate the paradigms’ cosmological assumptions, and theories do not grow from cosmological assumptions which do not support the theory. Thus, they are related, as “parent” and “child”; that is, paradigms and theories belong in ontological and epistemological and axiological “families.” (Y. Lincoln & N. Denzin, personal communication, March 19, 2006)

Given this clarification of the relationship between paradigms and theories, the field of mixed methods seeks to remap and reshape the paradigmatic landscape, often to address the thorny paradigmatic issues involved in the mixing of methods and methodologies within a single evaluation project. The first is dialectical pluralism, which is envisioned to stand at the nexus of the constructivist and postpositivist paradigms (Greene & Hall, 2010; Johnson, 2010). Dialectical pluralism is seen as a philosophical stance that allows evaluators to engage in mixed methods inquiries while experiencing the tension between the assumptions of the postpositivist and constructivist paradigms. Another, the pragmatic paradigm (Biesta, 2010; Morgan, 2007; Johnson & Onwuegbuzie, 2004), supports the use of mixed methods based on the assumption that there is not one set of methods that is appropriate; rather, the criteria for choosing methods include what method fits with the evaluation questions. Biesta (2010), Greene and Hall (2010), and Denzin (2012) warn against an overly simplistic application of the pragmatic philosophy in evaluation, as in: If the method fits the question, then use it. Biesta (2010) outlines the basic principles of pragmatism as a philosophy that can inform mixed methods evaluators because Dewey held that no knowledge claim can be documented as providing the truth. Rather, different knowledge claims result from different ways of engaging with the social world. The transformative paradigm (Mertens, 2009; Mertens & Wilson, 2012) contains philosophical assumptions that emanate from an ethical stance that emphasizes the pursuit of social justice and the furtherance of human rights. Based on this axiological assumption, the evaluator is able to derive implications for the nature of reality, knowledge, and systematic inquiry that are commensurate with this ethical assumption. Hence, the nature of reality is looked upon as being multifaceted and reflective of different power positionalities in society. Pluralist paradigms (Frost & Nolas, 2013 [this issue]) stress the
feasibility of conducting evaluation that traverses multiple methodologies and paradigms.

These paradigmatic stances have been deployed in the practice of mixed methods evaluation and also differ in how they approach the issue of incommensurability of paradigms when mixing methods. A pragmatic paradigm and pluralist paradigm, for example, directly provide strategies to combine paradigmatic approaches that are compatible with different sets of philosophical assumptions.

Although the use of mixed methods is not a required methodological decision within any of these paradigms, evaluators can align themselves with these paradigmatic stances and make decisions to use a single method because that is what is appropriate given the specific evaluation. In other words, paradigms do not dictate methods; rather, they guide thinking about methodological decisions. In undertaking the use of any methods (whether mixed or not), the evaluator needs to give consideration to the focus and the questions of the evaluation—what is it we want to know—and to be cognizant that all problems come from a perspective (transformative/feminist/critical, etc.). These perspectives in turn assume a given view of the social world and stance toward knowledge building (e.g., reality is out there and knowable; reality is multiple and subjective; etc.). Hence, evaluators who situate themselves within different paradigms will likely view the focus of the evaluation differently and will consequently ask different types of questions and make different methodological decisions.

Each of these paradigmatic approaches applied to mixed methods evaluation is also linked to specific types of methodologies (deploying a single or multiple set of methodological perspectives and evaluation questions) and in turn, these are linked to specific mixed methods practices/designs. Sometimes evaluators employ a single methodology and use mixed methods, for example, the postpositivist whose questions are in the service of this paradigmatic perspective, and who uses quantitative methods (as a primary method of inquiry) and deploys a qualitative method (to supplement primarily quantitative findings). This is not a dialectic stance but a monoparadigmatic mixed methods approach. Engaging two different paradigms means asking very different questions based on different views of the social world (e.g., positivism and constructivism). The methods chosen probably are in the service of answering different paradigmatic questions. This is illustrated by Greene’s (2007) example of design as a dialectical stance whereby two philosophical frameworks are woven and in conversation so that each can be used to inform the other’s approach.

Greene and Hall (2010, p. 124) describe a dialectic stance as follows: “A dialectic stance actively welcomes more than one paradigmatic tradition and mental model, along with more than one methodology and type of method, into the same inquiry space and engages them in respectful dialogue one with the other throughout the inquiry.” This stance allows the evaluator to adhere to the beliefs of the postpositivist paradigm in
conducting quantitative-oriented data collection and the constructivist in qualitative-oriented data collection and then to put the two in conversation with each other throughout the study to allow for deeper understandings based on the convergence and dissonance found in the approaches.

In conclusion, we argue that the use of paradigms as philosophical frameworks that delineate assumptions about ethics, reality, knowledge, and systematic inquiry helps to clarify the basis of disagreements among members of the mixed methods community. One paradigmatic position is not correct and the others wrong. However, continued debate about these frameworks provides fertile ground for expanding our understandings of the value and challenges associated with mixed methods evaluations.

References


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