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Teacher Personal Theorizing and Research on Curriculum and Teaching

In this book, we examine the relationship between teacher thinking and teacher action as illustrated by the curricular and instructional practices of teachers. During the past decade a number of scholars have investigated a variety of aspects of teacher cognition. The resultant literature can be categorized into three primary research areas: (a) teachers' planning (pre-active and postactive thoughts); (b) teachers' interactive thoughts and decisions; and (c) teachers' theories and beliefs (Clark & Peterson, 1986). The research on teacher thinking generally agrees that teachers' personal theories and beliefs serve as the basis for classroom practice and curriculum decision making, yet the nature of this relationship is not well understood.

This book is based upon the assumption that all practical activities, such as teaching, are guided by some theory. Teaching is practical work carried out in the socially constructed, complex, and institutionalized world of schooling, which shapes teachers' actions and gives context to their meaning. As a result, teachers could not begin to practice without some knowledge of the context of their practice and some ideas about what can and should be done in those circumstances. In this sense, teachers are guided by personal, practical theories that structure their activities and guide them in decision making.

The reasons why teachers do what they do are indeed complex and are subject to increasing attention of curriculum scholars and researchers. In this book, we address these issues by bringing together a collection of diverse essays and research reports focused on illuminating how teachers consciously and tacitly use their knowledge, skills, beliefs, and values to make

sense of their situations, take appropriate actions, and assess the impact of those actions.

In this introductory chapter, we will discuss the notion of teacher personal theorizing in relation to the broader field of research on teaching. By examining the development of research on teaching in recent years, with particular attention to the dominant research programs within the field we can outline the underpinnings of research on teacher theorizing. Following this is a brief discussion of Dewey's theory of experience as a basis for the construct of teacher personal theorizing.

RESEARCH ON TEACHING

Recent publications, such as the *Knowledge Base for the Beginning Teacher*, the *Handbook of Research on Teaching* (3rd ed.), and the *Handbook of Research on Social Studies Teaching and Learning*; the introduction of the new international journal devoted to research on teaching, *Teaching and Teacher Education*; and the addition of a division within the American Educational Research Association that is devoted to teaching, illustrate the considerable emphasis in current educational research on the development of a systematic knowledge base for teaching.

The burgeoning interest in the research on teaching has introduced a number of theoretical and research frameworks that only a few years ago were not part of the field, particularly critical pedagogy and poststructuralist perspectives. However, two paradigms have dominated research on teaching, and educational research in general, over the past twenty-five years. They are process-product and interpretive research.¹

Process-Product Research

Process-product, or teaching effectiveness, research represents the mainstream of research on teaching since about 1965. Working in the tradition of applied behavioristic psychology, process-product researchers have attempted to construct a scientific basis for teaching. Key contributors include Dunkin and Biddle (1974), Gage (1978), Brophy (1983), Evertson (1985), and Good (1979). The basic goals of process-product research have been described as attempting

to define relationships between what teachers do in the classroom (the processes of teaching) and what happens to their students (the products of learning). One product that has

received much attention is achievement in the basic skills . . . Research in this tradition assumes that greater knowledge of such relationships will lead to improved instruction: once effective instruction is described, then supposedly programs can be designed to promote those effective practices. (Anderson, Evertson, & Brophy, 1979, p. 193)

Most research of this type is descriptive and correlational, with field experiments having been conducted in recent years (e.g., Coladarci & Gage, 1984; Evertson, 1985). Shulman describes the typical process-product study as study

conducted in existing classrooms that function normally during the periods of observation . . . Observers ordinarily use categorical observation scales, typically of the "low inference" variety (tallying the occurrence of observable events rather than judging or evaluating the quality of observed activities, which would be deemed "high inference") and most often spread a set of observations occasions (as few as four and as many as twenty) across most of the school year. (1986, p. 10)

In this research, teaching is understood as a linear activity in which the particular teacher actions (such as direct instruction, higher-order questions, or responses to misbehavior) produce particular pupil responses (high standardized test scores or "appropriate" classroom behavior). Teaching effectiveness results from a combination of discrete, observable teaching behaviors that operate independently of time and place. As Shulman notes, there is assumed to be an underlying "true score" for the relationship between a given teacher behavior and pupil outcome measure. Researchers employing process-product models control "context variables" (such as gender, subject matter, and ability levels) so that data from different teachers and situations can be aggregated in an effort to estimate the parameters or laws of teaching. "The problem is to get beyond the limitations of particular teachers, particular classrooms, and particular studies to a more stable generalization" (Shulman, 1986, p. 10). This last effort is represented by advocates of "meta-analysis" of process-product research to discover more stable relationships between specific teacher actions and pupil responses (e.g., Gage & Needels, 1989). Major findings from process-product research are summarized in Brophy and Good (1986), Good and Brophy (1986), and Rosenshine and Stevens (1986).

More recently, and in conjunction with the increased influ-

ence of cognitive science, process-product researchers have focused their concern on the mediating processes that occupy the middle ground between teacher actions and pupil responses. The work of Peterson (1988) exemplifies the effort to study teachers' and students' thinking in addition to their behavior and achievement. Although the evolution of process-product research to include cognitions as well as behaviors as part of the effort to create a scientific base for teaching might seem inconsistent with the assumptions inherent in psychological behaviorism, it should be noted that the construct of mediation was developed as part of learning theorists' attempts to understand what processes mediated between stimulus and response. It has been suggested that cognitive science may be able to bridge the differences between process-product and other types of research on teaching.

Interpretive Research

This paradigm, which has been characterized as studies of "classroom ecology," includes a broad and diverse group of studies with foundations in anthropology (e.g., Erickson, 1973), sociology (e.g., Delamont & Atkinson, 1980), sociolinguistics (e.g., Cazden, John, & Hymes, 1972) and other traditions, such as curriculum and teaching (e.g., Doyle, 1977; Elbaz, 1981; Feiman-Nemser & Floden, 1986; Tom, 1984). Cazden (1986) and Erickson (1986) have written recent syntheses of this research.

Studies in this paradigm differ not only in their disciplinary bases but also in their scope. The range is from microanalysis of verbal interactions (Green, 1983) to macroanalysis of entire schools or communities in relation to schools (Peshkin, 1978, 1986).

The key characteristic that makes this collection of diverse investigations a family of inquiries is that each perspective "presumes that teaching is a highly complex, context-specific, interactive activity in which differences across classrooms, schools, and communities are critically important" (Cochran-Smith & Lytle, 1990, p. 3). The central assumptions of interpretive research include (a) attention to the reciprocal interaction between persons and their environments, rather than unidirectional causality from teacher to student; (b) treating teaching and learning as a continuously interactive process, rather than reducing teaching to a few isolated factors; (c) considering the classroom as a context embedded within other contexts (school, community, and culture) that influence what is observed in the

classroom; and (d) considering unobservable processes, such as thoughts, attitudes, and perceptions, as important data sources (Hamilton, 1983).

It is important to note the differences between the interpretive and process-product studies of teaching. Often the major difference in these research programs is misunderstood as primarily methodological. That is, process-product research is described as "quantitative" and interpretive research is considered "qualitative." This position assumes that the different research programs are examining the same phenomenon for similar purposes. Teacher effectiveness researchers can be described as conducting carefully controlled correlational and quasi-experimental research, using large samples and employing descriptive and inferential statistics in the development of causal propositions regarding forms of teacher behavior associated with pupil performance gains. Interpretive researchers, on the other hand, employ participant observation methods or conduct extensive and open-ended interviews in a single setting and report their findings in narrative form without making generalizations beyond the context studied.

As Cazden (1986), Shulman (1986), and Erickson (1986) point out, the most important differences between process-product and interpretive research on teaching are substantive rather than methodological. Shulman summarizes these differences as falling into five areas. First, interpretive researchers pose questions not in a search for explanatory laws, but in a search for meaning. Geertz contrasts the positive (e.g., process-product research) and interpretive traditions this way:

The concept of culture . . . is essentially a semiotic one. Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. It is explication I am after, construing social expressions on their surface enigmatical. (1973, p. 5)

Geertz continues by describing what ethnographers do and adds that, "cultural analysis is (or should be) guessing at meanings, assessing the guesses, and drawing explanatory conclusions from better guesses, not discovering the Continent of Meaning and mapping out its bodiless landscape" (p. 20).

A second difference can be found in the conception of causal-

ity. Process-product research places the teacher at the center of the classroom and treats him or her as the primary data source. Within the interpretive tradition, the matter of causal direction itself is problematic. This is reflected in the central assumptions of this research as noted by Hamilton above. The goal is to understand the nature of an interactive teaching/learning process from the participants' viewpoints.

Thirdly, perspectives differ on the concept of effectiveness. Process-product researchers' conception of effectiveness is decontextualized; that is, criteria of effectiveness lie outside the immediate setting being observed, relying upon measures of achievement by end-of-year standardized tests. Interpretive researchers tend to search for criteria of effectiveness within the situation being studied (see Erickson, 1986), for example, equality of opportunity, indicators of clear communications of meaning between teacher and students, or smoothness of transitions within the classroom.

Although it is not the primary difference between the traditions, methodology is an important one, particularly the unit of analysis used in the various research studies. Process-product researchers typically view the classroom as "reducible to discrete events and behaviors which can be noted, counted, and aggregated for purposes of generalizations across settings and individuals" (Shulman, 1986, p. 20). Interpretive researchers view the classroom and the teaching/learning process holistically. Classrooms are seen as socially and culturally organized environments residing within a broader community in which individual participants contribute to the organization and definition of meanings. Personal meanings are the focal point for inquiry. The concern is for the significance and meanings of the events to the actors themselves, collectively and individually.

Lastly, the logic of interpretive research is from the concrete to the universal, with an emphasis on the construction of detailed cases and analysis of commonalities across detailed particularizations through which generalizations are sought. This differs from the method of the inductive positivists in that interpretive researchers do not sample instances or elements across a wide range of concrete particulars as a basis for inferring universals. As Erickson (1986) notes, the central questions of interpretive research concern issues that are neither obvious nor trivial. They concern issues of human choice and meaning: (a) making the familiar strange, the commonplace problematic; (b)

constructing specific understandings through documentation of concrete details; (c) discovering the “local meanings” events have; (d) developing comparative understanding of different social settings; and (e) addressing the need for comparative understanding beyond the immediate circumstances of the local setting.

TEACHER PERSONAL THEORIZING

Despite the great differences between the two dominant paradigms in research on teaching, at least one similarity is important to analyze as we attempt to develop a research program that rises above the constraints of an old dualism. The most recent incarnations of teacher effectiveness research have been heavily influenced by cognitive science research, to which earlier process-product research was immune. With the move away from a strictly behaviorist conception of teaching, teacher effectiveness researchers started to take the mediation of teaching seriously.²

The claim has been made that cognitive science and the interpretive tradition of research, particularly school ethnography, are similar in that both “ascribe substantial cognitive and/or social organization to the participants in their studies, and assume that prior knowledge, experience, or attitude frames the new encounters and their interpretation” (Shulman, 1986, p. 22). Despite these similarities, however, research on social and cognitive mediation of teaching has been conducted by two separate communities of researchers.³

Newer research, labeled as investigations of teacher cognition and decision making or teachers’ thought processes, include two very distinct approaches to research on teaching. The first, cognitive process research, is a direct descendent of psychologically based process-product approaches, and the second, research on teachers’ practical knowledge and theories, has roots in curriculum research and teacher education.

Studies taking the cognitive processes orientation have tended to fall into one of three areas: (a) studies of teacher planning (e.g., Yinger, 1979); (b) studies of interactive thought (e.g., Peterson & Clark, 1978); and (c) studies of teacher judgments and decision making (Shavelson, 1976). Each of these genres of research examines a different element of the teaching task in isolation from others and has been heavily influenced by psychological research models, which Shulman cautions “may have driven this program of research into a dead end” (1986, p. 24).

Research on teachers' practical knowledge and theories focuses on social mediation and the influence of social and institutional contexts of teaching. The theoretical framework for this research was elaborated in the work of John Dewey, particularly his concept of experience.

Curriculum as Experience

The notion of curriculum as something experienced in situations is grounded in Dewey's theory of experience (see Connelly & Clandinin, 1988; Ross, in this volume). Experience, from a Deweyan perspective, is much more than passively registering or beholding a phenomenon. Experience for him meant a process "situated in a natural environment, mediated by a socially shared symbolic system, actively exploring and responding to the ambiguities of the world by seeking to render the most problematic of them determinant" (Alexander, 1987, p. xiii).

Dewey's concept of experience emphasizes: (a) the interplay between objective conditions and organic energies; (b) deliberate alteration of the environment by inquirers, leading to new knowledge (e.g., the scientific notion of experiment); and (c) the Peircean notion of meaning, in which our conceptions are analyzed and transformed in terms of the consequences of our actions (Scheffler, 1974).

In [Dewey's] view, the essential ingredient in acquiring knowledge is the perception of relations, especially the relations between our actions and their empirical consequences. As we gain this type of perception, both our conduct and the environment grow in meaning. To achieve a grasp of relations, we require experience and the ability to store what is learned from experience. Experience . . . involves deliberate interaction with environmental conditions, the consequences of which are critically noted and fed back into the control of future conduct. Such interaction is the mark of scientific thinking . . . but it may be generalized to embrace all varieties of intelligent thinking. Intelligent thinking is, moreover, not a thing apart from the moral life. (Scheffler, 1974, p. 197)

Curriculum as experience has a dynamic quality, focusing on the interactions of the student, teacher, and subject matter (Dewey, 1902). Dewey argued that the child's experience is partial and fragmentary, but not different in kind from that of the human race, which culminated in creating fields of knowledge and disciplined inquiry. He argued that subject matter as con-

tained in textbooks was the logically organized end product of inquiry and as such was important. However, he noted that insisting that students merely recite this body of knowledge is cheating the students of insights and understandings of the process of inquiry that went before. The basic concern in his approach to education was how to relate idea and action toward the end of enriching experience. This meant creating school experiences that would help children grow intellectually, ethically, emotionally, and aesthetically.

In *How We Think* (1933) and the essay "The Relation of Theory to Practice in Education" (1904), we find Dewey's image of the teacher and his or her role in the creation of school experiences. He argued that teachers must be students of both subject matter and "mind activity" if they are to foster student growth. He argued that "a healthy [teaching] profession requires teachers who have learned to apply the habits of critical thought to their work. To do this, they must have a full knowledge of their subject matter, and observe and reflect in terms of psychological and philosophical concepts" (Wirth, 1989, p. 56). Teacher education then should set the stage for professional growth and development over the long term instead of focusing on immediate skill proficiency. Teachers gain the necessary knowledge, attitudes, and skills that allow them to continue learning about teaching and curriculum through personal professional experiences. For Dewey, these personal professional experiences included a role in research and theorizing. Dewey took seriously the injunction that teachers should be engaged in genuine intellectual activity and sought ways to involve them in research investigations.⁴

Dewey's (1900) notion of the classroom laboratory placed the teacher squarely in the center of efforts to understand educational practice and develop educational theory. He sought to join the "objective science" of psychology with the subjective consciousness of the practitioner through a "linking science" or philosophy of education.

It is the participation by the practical man [sic] in the theory, through the agency of the linking science, that determines at once the effectiveness of work done, and the moral freedom and personal development of the one engaged in it. It is because the physician no longer follows rules, which, however rational in themselves, are yet arbitrary to him (because grounded in principles that he does not understand), that his work is becoming liberal, attaining the dignity of a profession, instead of remain-

ing a mixture of *empiricism and quackery* . . . Shall we seek analogy with the teacher's calling in the workingmen [*sic*] in the mill, or in the scientific physician? (Dewey, 1900/1976, pp. 136-137, emphasis in original)

The relatively recent growth of the curriculum-as-experience perspective can be attributed to the influence of Joseph Schwab. Parker (1987) notes that Schwab's (1969, 1971, 1973) "practical papers"

turned the attention of some in curriculum away from the field's traditional regard for scientific management and generalized implementation to the project of comprehending phronesis. Schwab thus heralded the old notion that today remains oddly iconoclastic: Teachers are reflective practitioners, their practice is an art, and their curriculum agency is necessarily eclectic and context-bound. (p. 11)

Work by curriculum scholars such as Reid and Walker (Reid, 1978; Walker, 1971, 1990; Reid & Walker, 1975) built on Schwab's notions of the curriculum commonplaces and deliberation and did much to further the notion of curriculum as a practical endeavor. Curriculum problems were defined as practical problems (as opposed to the Aristotelian notion of the theoretical). That is, practical problems arise when an individual or group identifies conditions that it wants to change. A practical problem can only be resolved by an action or a decision to undertake actions designed to eliminate the problematic conditions.

Research on Curriculum and Teaching

Much curriculum research has turned away from positivistic notions of theory making (nomothetic, decontextualized, universal) and become more concerned with ways in which teachers develop practical theories to address the problems they encounter in classrooms and schools. Conceptions of human nature and social scientific explanation have direct implications for the purposes, methodology, and use of findings from social and educational research (Howe, 1990). Examining these conceptions can help us understand the differences between various research programs and can further explicate the position of teacher personal theorizing within them.

The positivist theory of social scientific explanation, which is exemplified by process-product research, "entails discovering mechanistic causal regularities; its conception of human nature

entails unthinking Norway rats who are (exclusively) subject to such causes" (Howe, 1990, p. 12). In concert with these tenets, nomothetic research claims to be value neutral regarding moral and political issues, and its ultimate goal becomes technical control (Fay, 1975).

Positivistic technical control is especially vulnerable with respect to the bifurcation between means and ends. Howe (and others) argue that positivistic social research cannot sustain its claimed value neutrality with respect to either means or ends. "Wittingly or unwittingly, positivistic technical control promotes certain values" (p. 13). Thirdly, Howe charges that the rigid means-ends bifurcation is irremediably nondemocratic. "In virtue of (somehow) settling on ends and then relegating the investigation of possible means to these ends to (expert) social researchers, it implicitly dismisses the value of participation in deliberation on the part of those who are affected" (p. 13).

By embracing an intentionalist conception of social scientific explanation and an extreme activist conception of human nature, interpretivism attempts to uncover the beliefs and customs that are the foundations for human behavior, that make it possible for individuals to understand themselves and one another. This, in turn, makes more meaningful and effective participation in deliberation possible. "Respect for individuals as having both a moral claim to and the disposition to have a say in the conduct of social life entails that the findings of social research should be used to facilitate this attempt to work out the details of social life" (Howe, 1990, p. 14).

The interpretivist's exclusive focus on the "insider's" perspective presents problems, just as does the positivist's lack of attention to this perspective. Fay (1975) points out that interpretivism fails to take into account the structural features and causes of social practices and the norms that actors unwittingly internalize and employ in communication and action.⁵ The most problematic limitation of interpretivism is its inherently conservative orientation. By limiting itself to the insider's perspective, it commits the researcher to a form of relativism that provides little or no space for external criticism of the social order or educational practice. As Howe notes, "This places the researcher in the position of being a mere data gatherer who then operates as little more than a functionary, withholding, or revising in light of the insider's perspectives, perspectives on the situation that might disagree with those of the insiders" (pp. 15-16).

As an alternative to positivistic technical control and interpretivistic facilitation, Howe introduces the “practical social research.”

In virtue of embracing a proper role for technical . . . social scientific explanation, critical social research grants to researchers special expertise and knowledge not possessed by lay persons. In virtue of also embracing a proper role for intentionalist explanation, as well as an activist conception of human nature, rather than employing this specialized knowledge as a means of technical control, however, practical social research subjects it to critical scrutiny with respect to its accuracy and its implications for social life—both on the part of other social researchers and on the part of lay interlocutors. Practical social research is thus more akin to interpretivism than it is to positivism. Like the interpretivist link between theory and practice, practical social research is inherently participatory and must be ultimately grounded in terms of the insider’s perspective. The key difference is that practical social research consists in challenging lay interlocutors with (expert) social research findings rather than merely facilitating mutual understanding of the rule of the game. (p. 16)

This type of educational research gives attention to both external and internal value constraints on research practice and requires a collaborative model of that practice. Research on teacher personal theorizing as reported in the chapters that follow reflects the conception of human nature and social scientific explanation characteristic of practical educational research. Teaching and curriculum making are viewed as complex, context-bound professional tasks. Teachers must select and organize multiple factors in ways that provide educative experiences for particular groups of students in particular settings. Sanders and McCutcheon have characterized teaching as

practical work carried out in a socially constructed, complex and institutionalized world of schooling. That world shapes action and gives context to its meaning. Educational practices are the media of professional action in that world, and they involve more than simply behavior. Professional practices are manifest in behavior, of course, but they entail thoughts, interpretations, choices, values, and commitments as well. (1986, pp. 50-51)

Sanders and McCutcheon continue by noting that teaching “is intentional in that it involves acting in certain ways in order to

produce or evoke desired consequences or to create particular conditions” (p. 51). Effective teaching practice is based upon experiential knowledge. Teachers learn to make curriculum decisions primarily through direct experience as both students and teachers. “This knowledge is personal and particular to the actual situation, and much of it is tacit: the teacher knows how to do things he or she cannot explain” (House, Lapan, & Mathison, 1989, p. 58). This knowledge shapes what teachers do as professionals in classrooms and schools, and as a result any strategy for improving curriculum and teaching must work through this basic fact.

Practical knowledge and personal inference structures are required to perform professional tasks. The professional knowledge of teachers is theoretical knowledge, or what has been termed “practical theories of teaching.”

Practical theories of teaching are the conceptual structures and visions that provide teachers with reasons for acting as they do, and for choosing the teaching activities and curriculum materials they choose in order to be effective. They are principles or propositions that undergird and guide teachers' appreciations, decisions, and actions. (Sanders & McCutcheon, 1986, pp. 54-55)

Such theories are important to the success of teaching because educational problems are practical problems (Reid, 1978). Practical problems are defined by discrepancies between a *practitioner's* theory and practice, not as gaps between formal educational theory and teacher behaviors.

All practices, like all observations, have “theory” embedded in them and this is just as true for the practice of “theoretical” pursuits as it is for those of “practical” pursuits like teaching . . . The twin assumptions that all “theory” is non-practical and all “practice” is non-theoretical are, therefore, entirely misguided. Teachers could no more teach without reflecting upon (and hence theorizing about) what they are doing than theorists could produce theories without engaging in the sort of practices distinctive of their activity. “Theories” are not bodies of knowledge that can be generated out of a practical vacuum and teaching is not some kind of robot-like mechanical performance that is devoid of any theoretical reflection. Both are practical undertakings whose guiding theory consists of the reflective consciousness of their respective practitioners. (Carr & Kemmis, 1986, p. 11)

Educational problems are resolved not by discovery of new knowledge, but by formulating and acting upon practical judgment (Carr & Kemmis, 1986). Educational research, then, must be conceived as a practical activity. The central aim must be to improve the practical effectiveness of the theories that teachers employ in conceptualizing their practice. This aim presents problems in that sometimes teachers may not be conscious of the reasons for their actions. This means that research concerned with teachers' personal theorizing must be sensitive to the tacit cultural environment of teaching—the language, manners, standards, and values that unconsciously influence the classroom and school environment and the ways in which teachers respond to it (see chapters by Pape and Kleinsasser in this volume). As Dewey asserted, the primary factor in education is the culture itself, and culture is not a self-conscious or self-critical medium.

We rarely recognize the extent in which our conscious estimates of what is worthwhile and what is not are due to standards of which we are not conscious at all. But in general it may be said that the things which we take for granted without inquiry or reflection are just the things which determine our conscious thinking and decide our conclusions. And these habits which lie below the level of reflection are just those which have been formed in the constant give and take of relationship with others. (Dewey, 1916, p. 18)

As described in the chapters by Cornett and Associates and McCutcheon, the key is to develop within teachers and their research collaborators critical self-reflection, reevaluation, and explorations of both teachers' practical theories and the actions which they guide. Chapters in this volume by Daresh as well as by Skrtic and Ware address these same issues as they apply to school administrators and other stakeholders in the curriculum-making process. In this effort, the research program illustrated in the chapters that follow reflects a fundamental characteristic of practical social research as described by Howe. The practical end of such research is the creation of a creative-critical culture of teachers, "not as an immediate, isolated base occurrence, as an indefinitely fleeting 'now,' but as the dynamically insistent occasion for establishing continuity or growth of meaning" (Alexander, 1987, p. 269).

This requires that teaching and curriculum making be considered as problematic situations. As Dewey offered,

In accord with the interest and occupations of the group, certain things become objects of high esteem; others of aversion . . . The way our group or class does things tends to determine the proper objects of attention, and thus to prescribe the directions and limits of observation and memory . . . It seems almost incredible to us, for example, that things which we know very well could have escaped recognition in past ages. We incline to account for it by attributing congenital stupidity to our fore-runners and by assuming superior native intelligence on our own part. But the explanation is that their modes of life did not call for attention to such facts, but held their minds riveted to other things. Just as the senses require sensible objects to stimulate them, so our powers of observation, recollection, and imagination do not work spontaneously, but are set in motion by the demands set up by current social occupations . . . What conscious, deliberate teaching can do is at most to free the capacities thus formed for fuller exercise, to purge them of some of their grossness, and to furnish objects which make their activity more productive of meaning. (1916, p. 17)

Research on teacher personal theorizing gives attention to both internal and external value constraints, operates on a collaborative research model, and consists of making problematic the situation under investigation. The focus of such research is not concentrated on teacher behaviors or insider perspectives in isolation. The goal is to understand teaching and curriculum making as universes of activity influenced by personal experiences and interactions among individuals and contexts. As Dewey points out,

Society not only continues to exist by transmission, by communication, but it may fairly be said to exist in transmission and communication. There is more than a verbal tie between the words common, community, and communication. Men [sic] live in a community in virtue of the things which they have in common; and communication is the way in which they come to possess things in common. What they must have in common in order to form a community or society are aims, beliefs, aspirations, knowledge—a common understanding—like-mindedness as the sociologists say . . . The communication which insures participation in a common understanding is one which secures similar emotional and intellectual dispositions—like ways of responding to expectations and requirements. (1916, p. 4)

Ultimately, research on teacher personal theorizing attempts to develop these common understandings between researchers

and practitioners. As noted above, the success of such an endeavor rests upon how ideas are communicated. "Genuine communication is only achieved through creative transformation of experience which involves the combination of a rich cultural matrix, the critical use of intelligence, and the active struggle to establish continuity or growth" (Alexander, 1987, p. 274). Genuine communication about the nature of the teaching enterprise, then, is the goal of this research program and of this book.