Knowing teaching: The intersection of research on teaching and qualitative r...
Magdalene Lampert
Harvard Educational Review; Spring 2000; 70, 1; Research Library
pg. 86

Knowing Teaching: The Intersection of Research on Teaching and Qualitative Research

MAGDALENE LAMPERT
University of Michigan, Ann Arbor

In this article, Magdalene Lampert argues that teachers can be both initiators and active participants in a research agenda, adding valuable insider knowledge. She considers three points: "the potential for teacher research to change ideas about who is responsible for producing professional knowledge, the benefits and dangers of inserting the self into social science, and the challenges of presenting the problems of a practice from inside that practice."

Educational researchers struggle incessantly with the relationship between knowledge and action. What does it mean to do scholarship in an applied field? What methodologies are appropriate to capture the problems of the field? Are these practitioners' problems? Are they problems worthy of scholarly inquiry? What is the relevance of the findings of scholarly research for improving practice? In wrestling with these questions, educational research and qualitative research have intertwined and influenced one another, raising issues that mix content questions with methodological problems. In the halls of academe, questions about voice, about the relationship between the researcher and the researched, and about the relevance of scholarship to the solution of social problems have always been high on the agendas of both qualitative research and educational research. In the corners where educational research attends to teaching, these questions have been particularly prominent.

What Is Research on Teaching?

I started teaching in the 1960s, inspired by contemporary commentaries about what was wrong with schools. Among the most influential of these com-

Harvard Educational Review Vol. 70 No. 1 Spring 2000
Copyright © by President and Fellows of Harvard College

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

mentaries were stories about teaching written in the first person by reformers who taught school to find out what was going on there and what could be done about it.[1] My experience as a teacher in an urban high school confirmed what I had been reading. But, when I turned from classroom teaching to the academic study of teaching in 1978, I discovered that books like these were not found on the assigned reading lists in my graduate school courses. Only in a history seminar did I encounter some writing about practice by teachers from the 1920s and 1930s, teachers who started schools, designed curricula, and studied children.[2] In the contemporary writing about teaching that I was assigned, the teacher's voice was not to be heard.

I am not the only one who has been puzzling about the teacher's role in research on teaching. In *Educational Researcher*, the monthly journal of the American Educational Research Association (AERA), the question of who in the research community speaks appropriately of teaching and how they should go about studying practice has been raised repeatedly over the last decade.[3] Most recently, Gary Anderson and Kathryn Herr examined the problem of making room for "rigorous practitioner knowledge" in schools and universities.[4] They pointed to the classic relationship between professional knowledge and "systematic knowledge produced by schools of higher learning" as one of the sticking points in defining appropriate methods of research on teaching, as well as in determining who is qualified to do it. As scholars argue about both the purposes and the validity of research on teaching, the question of who should do research on teaching spills over into questions about method and mixes with assertions about appropriate genres for reporting research. Is research on teaching a scholarly effort to understand a complex practice? Is it only of interest if applying it produces student learning? Is it an instrumental project, identifying problems, proposing solutions, and testing them in practice? Is it meant to produce knowledge for teachers? Or for those who prepare teachers? Or for those who control teachers' working conditions?

In the midst of all these questions, not only paradigms but also products and venues for communicating findings have proliferated. The AERA established a new division (Division K) for research on "Teaching and Teacher Education" in June 1984. It quickly became the largest division in the association, with seven different sections. From a practitioner's perspective, the boundaries among the sections are somewhat puzzling: one deals with research on teaching "subject matter," one with research on "collaborative or partnership settings" for teaching, one with research on teaching in multicultural settings, and one with research on "teaching and learning in the contexts of teachers' work," which is further divided into a subsection for pedagogical aspects and a subsection for organizational aspects. A separate section is devoted to "self-study and practitioner inquiry and scholarship on teachers and teaching."[5] In all of the sections of Division K, research is "construed broadly to include but not be limited to, philosophical, historical,

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ecological, ethnographic, descriptive, correlational, or experimental studies." Research on teaching and qualitative research have grown and developed together, and the hodgepodge that has resulted from their interaction has become an institution.

Teacher Research

One element in this jumble of practice-focused inquiry stands out as especially worthy of commentary. The formal addition of practitioners to the community of researchers on teaching, indicated by their inclusion in the AERA as well as other scholarly institutions, seems to raise the most interesting questions for qualitative research. The shift from thinking of research as something that is done *on* teachers to a kind of work that is done *by* teachers could not have happened without the concurrent growth in appreciation of the contributions of qualitative research to the field of educational scholarship in recent years. In the 1970s, qualitative research helped to open educational research to questions of meaning, perspective, ownership, and purpose, and into this opening came teacher research.

Teachers have become participants in academic communities of research in several different ways. Some who make their living by teaching full time in K-12 schools conduct inquiry in their own and in one another's classrooms.[6] Others collaborate with university researchers while retaining their teaching positions, contributing the perspective of daily practice to the questions under study.[7] In a few cases, teachers regard inquiry to be part of their day-to-day work in classrooms. In other cases, it is one among many opportunities for "professional development," offered alongside summer institutes on subject matter, workshops on classroom management techniques, and conference sessions on new curricula. And then there are faculty members of colleges and universities who choose to teach in K-12 schools as a means to create a site for pursuing investigations of practice.[8] Some teach part of every day, others teach full time for a year or more. A multitude of books and articles are produced by this conglomeration of practitioners, some published in academic presses and journals, some in popular media. A few hybrid presses and journals have emerged that would be hard to identify as one or the other, and which count a majority of teachers among their authors. Conferences are devoted to teacher research, and funding agencies are making money available to support it.[9] The genres used to convey the findings of teacher research are as varied as the ways in which this work is structured.

Issues Raised for Qualitative Research by Teacher Research

Teacher research raises numerous issues for scholars who do qualitative research. Here I will consider only three: the potential for teacher research to change ideas about who is responsible for producing professional knowl-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

edge, the benefits and dangers of inserting the self into social science, and the challenges of presenting the problems of a practice from inside that practice.

Professional Responsibility

If teachers are doing research on their own practice, might they assume a central role in professional knowledge production? If teaching problems were considered to be the responsibility of the profession, rather than private trials for individuals to endure or mechanical defects for outsiders to repair, a great deal of expertise could be mustered in the service of improving practice. Such a move would redefine power relationships between practitioners and researchers, and raise questions about what nonpractitioners have to add to the "knowledge base." Practitioners doing research on practice could change the kinds of questions that are asked and the new understanding that is produced. If teachers write about their work from the inside, including both personal and professional perspectives on the problems of practice, their work could substantially alter what we now think of as appropriate conventions in the discourse of applied research.[10] As they communicated about their inquiry, teachers would develop a new syntax and a new semantics to add to those of the academic disciplines in the study of educational phenomena. Just as sociologists, anthropologists, and psychologists now both use and modify a variety of qualitative methods, practitioners would test and contribute to the development of these approaches to producing new knowledge.

Although appealing, looked at through an outsider's lens, this scenario is not without its problems. One of them has to do with where we draw the line between research and thoughtful practice. As Ken Zeichner has asked, "Is it proper to call it research when teachers examine their practice in a systematic and intentional manner?"[11] I will not take on that issue here, as Zeichner has already done so, and he is more qualified to give it adequate treatment than I. Another problem has to do with the social arrangements around teaching that tend to stifle inquiry. Creating a professional discourse in teaching has been a persistent challenge in the United States. In 1975, Dan Lortie wrote:

> The preparation of teachers does not seem to result in the analytic turn of mind one finds in other occupations whose members are trained in colleges and universities. . . . One hears little mention of the disciplines of observation, comparison, rules of inference, sampling, testing hypotheses through treatment and so forth. Scientific modes of reasoning and pedagogical practice seem compartmentalized; I observed this even among science teachers. This intellectual segregation puzzles me; those in other kinds of "people work" (e.g. clinical psychology, psychiatry, social work) seem more inclined to connect clinical issues with scientific modes of thought. This separation is relevant because it militates against the development of an effective technical culture and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

> because its absence means that conservative doctrines receive less factual challenge; each teacher is encouraged to have a personal version of teaching truth.[12]

In the past twenty-five years, many questions have been raised about the value and character of "the scientific method." But the problem that Lortie calls "intellectual segregation" persists among teachers, as does the rarity of observation, comparison, rules of inference, sampling, and testing hypotheses through treatment.[13] What Lortie calls "a personal version of teaching truth" continues to exist for most teachers alongside of and often untouched by the "teaching truths" that are produced by university researchers.[14] No professional language for describing and analyzing practice has developed in the United States, even as teachers reject the descriptions and analyses of scholars.[15] This deficit is particularly alarming when it is considered in light of recent psychological and linguistic work on the relationships between shared language, the development of understanding, and problem-solving activity.[16] It is notable that teacher educators are not drawn from the ranks of accomplished teachers and that "practice teaching" is rarely conducted as the kind of apprenticeship that doctors and lawyers experience as they work on practical problems together with more experienced members of their intended profession. What this means is that the language of practice remains flat or nonexistent.

That teachers do not learn simply by engaging in collaborative professional inquiry has as much to do with the structure of their work as it does with a disposition toward privacy and intuition. Currently, few teachers in the United States have the time and space in their work lives to think about the dynamics of teaching, let alone the resources to document their work and study the problems of their practice. Collaborations among practitioners to work on the problems of practice are considered "luxuries," rather than essential components of the work, as they would be in other professions such as medical or legal practice.[17] In Japan, by contrast, the structure of professional development in teaching is built on the assumption that teaching is a collaborative process rather than a private enterprise, and that it is improved through teachers' collaborative inquiry, including peer planning of curriculum and instruction.[18] In K-12 classrooms, Japanese teachers regularly teach "research lessons" to their students that are designed, recorded, and discussed by groups of practitioners working together on a particular problem of curriculum and instruction. Such work — which occurs at the school and district level as well as in national professional organizations — is thought not only to improve classroom practice, but also to connect classroom practice to broader educational goals and to explore conflicting ideas. Similarly, in China, a decades-long tradition and a well-articulated structure has new and experienced teachers collaborating in inquiry and practical problem-solving.[19] In the United Kingdom, a strong tradition of "action research" by teachers began in the 1960s and continues today.[20] The teachers who pro-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

duce and communicate knowledge of teaching in these cultures are not a special brand of "teacher researchers," they do what they do as part of their everyday practice, accepting the study of teaching and the solving of its problems as a professional responsibility.

Although the structural supports for it are still weak, teacher research on practice seems to be gaining ground. As teachers talk at conferences and write for their peers, they are beginning to create a genre of professional inquiry. As scholars who teach make their teaching experiments available for common investigation, they develop a shared text for analysis by others and a language of conceptual frames based in practice. This work is part of a modest but growing set of complementary institutional efforts, including teachers' collaborative assessment of student work, district-level teacher research groups, professional development schools, and the presentation of practice for assessment by fellow teachers in teacher portfolios, all of which might qualify as forms of "qualitative research." As these new professional venues become opportunities for teachers to conduct inquiry and communicate their findings, how will their work be regarded in relation to the larger picture of "knowledge production"? Should practitioners' research meet the same standards of method as scholarly research? If they invent their own methods, will these methods make their way into academic discourse? Should they?

Bringing the Self into Scholarly Activity

Writing academic texts in the first person is a current trend in many of the social sciences. Teacher research is but one small example of this phenomenon, but it gives qualitative researchers in education a context in which to examine the potential and the problems of this kind of writing. There are at least three issues of interest to qualitative researchers that arise from getting the self into a central position in research on teaching: the potential and pitfalls of autobiographical narrative as a scholarly genre; the capacity to uncover invisible, relational aspects of the work that have not been recognized by outsiders; and the mixture of responsibility and analysis that such work entails. In 1985, as a justification for writing about my teaching in the first person as a form of scholarship, I argued:

> Who the teacher is has a great deal to do with both the way she defines problems and what can and will be done about them. The academician solves problems that are recognized in some universal way as being important, whereas a teacher's problems arise because the state of affairs in the classroom is not what she wants it to be. Thus, practical problems, in contrast to theoretical ones, involve someone's wish for a change and the will to make it. Even though the teacher may be influenced by many powerful sources outside herself, the responsibility to act lies within. Like the researcher and the theoretician, she identifies problems and imagines solutions to them, but her job involves the additional personal burden of doing something about these problems in the classroom and living with the consequences of her actions over time. Thus, by way of

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

> acknowledging this deeply personal dimension of teaching practice, I have chosen not only to present the particular details of [other] teachers' problems, but to draw one of these problems from my own experience.[21]

In the 1980s, research on teacher thinking expanded to include the teacher's voice alongside the researcher's, as scholars sought to understand why practitioners act the way they do. In naming the teacher thinking that this approach revealed as "practical knowledge," researchers like Freema Elbaz, Jean Clandinin, and Michael Connelly raised new epistemological questions, as well as new questions about what sorts of research methods were appropriate for the study of teaching.

Another way to bring teachers' voices into the research literature has occurred through the publication of autobiographical narratives, but several scholars have advised proceeding cautiously with this approach. In a keynote address to the International Study Association on Teacher Thinking in 1995, Ivor Goodson observed that it was dangerous to believe "that merely by allowing people to 'narrate' that we in any serious way give them voice and agency."[22] Goodson quotes Cynthia Chamber's review of Connelly and Clandinin's book, *Teachers as Curriculum Planners: Narratives of Experience:*

> These authors offer us the naive hope that if teachers learn "to tell and understand their own story" they will be returned to their rightful place at the center of curriculum planning and reform. And yet, their method leaves each teacher a "blackbird singing in the dead of night"; isolated, and sadly ignorant of how his/her song is part of a much larger singing of the world.[23]

He notes as well that Kathy Carter celebrated the insertion of teachers' voices into educational research in 1993, but she also observed:

> For those of us telling stories in our work, we will not serve the community well if we sanctify story-telling work and build an epistemology on it to the point that we simply substitute one paradigmatic domination for another without challenging the domination itself. We must, then, become much more self-conscious than we have been in the past about the issues involved in narrative and story, such as interpretation, authenticity, normative value, and what our purposes are for telling stories in the first place.[24]

Working in the fields of psychology and sociology, Louise Kidder and Michelle Fine have made similar critical comments about the celebration of the insider's narrative. They assert that is it is the responsibility of researchers who stand outside the context of practice to "assert interpretive authority," placing the actor's story in relation to other actors and the world of ideas. Citing Joyce Ladner's commentaries on race research, they observe, "For Ladner, the very point of conducting social research is to interrupt the 'common sense' frames, ideologically driven by social arrangements or what she calls 'the system,' and to provide alternative lenses for viewing social behavior."[25] Kidder and Fine suggest that multiple lenses of this sort are possi-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

ble and desirable in researchers' interpretations of practitioners' stories: they call this work "kaleidoscopic."

How we regard the personal in teacher research is both a practical and a deeply epistemological question, forcing us back to the enduring puzzles educational researchers deal with about how to relate what is learned from a single "case" in all its complexity to other situations in which similar problems arise. What does it mean for problems that arise for particular people in particular contexts to be similar across settings? What additional skill or knowledge does a practitioner, or for that matter a scholar, need to have to take knowledge from one case into another?

The Problem of Representation

Once you know teaching from the inside, how do you communicate what you know so that there can be an accumulation of knowledge in the field? Writing about first-person teacher research in mathematics education, Deborah Ball goes beyond the importance of inserting the teacher's voice into the discourse of teaching and raises questions about the nature of autobiographical argument: on what basis are claims made by first-person writers, and on what evidence do readers accept them? Ball observes that teachers writing about teaching force us to ask what we mean by "truth" and to examine the writer's purposes as we define it. She draws on Ruth Behar's work, which describes the changing discourse of anthropology to emphasize that autobiographical scholarly writing is more difficult than more familiar academic argument. Behar issues a caution to which all who are involved in such projects would be wise to attend:

> As is the case with any intellectual trend, some experiments work out better than others. It is far from easy to locate oneself in one's own text. Writing vulnerably takes as much skill, nuance, and willingness to follow through on the ramifications of a complicated idea as writing invulnerably and distantly. I would say it takes greater skill.[26]

Why would the teacher researcher be "writing vulnerably"? What is it about this kind of writing that requires so much skill, given that it is the telling of one's own story? As a teacher writing about my own teaching, I certainly have access to special knowledge, but at the same time, I am constrained by the limitations of any medium to express the multiple aspects of what I know. Although it is my aim to retain the richness and complexity of what is going on in what I write about my teaching, being in the middle of it makes me painfully aware of the impossibility of telling the whole story. Language, even supplemented by other media, is simply inadequate to capture my experience and knowledge of teaching practice. It is inadequate even to capture all of the aspects of an event, to say nothing of representing the constellations of feelings and intentions imbedded in that event. That I can have

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

more of a sense of the whole of what is going on than any observer is both a blessing and a curse when I try to write about it.

Practice is doing. As I have argued, the study of practice thus begins in the setting in which a particular practitioner acts. To study practice means that I cannot succeed by limiting the focus of my inquiry, since a limited focus hinders practical problem-solving. Yet, in the course of attempting to tell about any practice, even if the telling is in the first person, one necessarily formalizes what has been learned, leaving out some aspects of the experience and highlighting others. It is not only the outsider who can bring what Kidder and Fine call "kaleidoscopic interpretations." For any inquiry into one's own practice, there are many possible stories to tell. For every story that is told, there are many possible meanings to interpret. Stories about practice are not mirrors of experience: like all texts, they are constructed by the author with certain intentions in mind.[27] When one is writing about oneself, no description seems adequate to the experience, and yet without description, what is learned remains private and unexamined.

This judgment about the inadequacy of language to represent my multifaceted experience of practice is more than scrupulous self-criticism. My audience can hold me to a higher standard of verisimilitude than they would other authors of case studies of teaching because I am the teacher I am portraying. Other kinds of writers about teaching are excused for leaving out considerations of gender or political context or parental relations or subject matter because these are outside of their area of expertise. As a teacher, I cannot ignore any of these domains, and I am also expected not to ignore them as a self-referential writer. In 1987, I turned to video as a possible solution to the problem of representing the complex nature of my teaching to others. I reasoned that, with video, the viewer would have greater access to the complex interactions occurring in the classroom even if they were limited by my editorial selection of a few minutes of the lesson from a longer stream of activity or by the angle of the videographer's lens. Such representations of the practices of teaching and studying seem authentic because what is going on for the participants seems to be available to the viewer all at once, rather than filtered through the interests of a describer.[28] In contrast to writing, video makes it possible to have a running image of the teacher-student-subject interaction without isolating these into single elements that then need to be put back together in some way to convey the whole.

When I show a videotape of my classroom, the question of how much "background" I need to provide and what to tell people before showing the tape always worries me. I am never satisfied that I have figured it out. Invariably, I run up against the frustration of wanting to show and say more than I have time for, and wish I could say, "You had to have been there to understand what that was about." Once viewers start to comment on what they see me doing on the tape, the video seems to represent so little of what I know about what is going on. And what I know from "being there" has a lot to do

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

with reasoning about the actions we are seeing on the tape. Speculating about why I did what I did and evidence of the reasonableness of those actions would need to be grounded in much more information than what was available. The possibility of real-time representations of teaching on video seems to exacerbate the problem of communicating about my practice rather than solving it.

My experiences with video pushed me to want to invent a better representation of teaching practice to serve as a basis for collaborative analysis and problem-solving. Working as elementary teachers, teacher educators, and researchers on teaching, Deborah Ball and I began to experiment in 1989 with multimedia. We assembled multiple records of our practice in an electronically accessible database that could be used by a teacher and her audience as the text to be interpreted in analytic discussions about practice. Although the promise of the technology has been greater than the reality, this representation of teaching continues to be both practically and conceptually appealing.[29] Multimedia technology has the potential to enable us to represent the kind of knowing that Ball and I find essential to our own teaching but lacking in research on teaching — what Lee Shulman has called "strategic" modes of knowing in practice.[30] Shulman's characterization of strategic knowing is strikingly similar to the rhetoric used by developers of multimedia technologies.[31] He observes that propositional knowledge is what is most conventionally delivered in academic settings to be "applied" in practice. He claims that case knowledge, with its vivid detail, makes the propositions it illustrates more memorable, but is still clearly distinguishable from strategic knowledge — knowledge as it is used in actual situations of practice:

> Both propositions and cases share the burden of unilaterality, the deficiency of turning the reader or user toward a single, particular rule or practical way of seeing. Strategic knowledge comes into play as the teacher confronts particular situations or problems, whether theoretical, practical, or moral, where principles collide and no simple solution is possible. Strategic knowledge is developed when the lessons of single principles contradict one another, or the precedents of particular cases are incompatible.[32]

It is precisely this sort of representation of practices of teaching that multimedia is supposed to make possible. It appealed to us because it could capture the complexity of practice that we saw from the inside, the strategic piece that required both thinking and doing but did not have a simple face. And perhaps it is this desire to understand the strategies teachers use in practice that drives the development of teacher research more broadly.

Where Next?

In 1990, the research team that I was working with conjured up the idea of a computer supported database called the "Investigator's Working Environment" (IWE), which would further the study of teaching by enabling the ac-

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

tivities of browsing, organizing, annotating, and displaying records of classroom teaching and learning in multiple media, along with individual and group commentaries on these records. The IWE was to be designed so that classroom practitioners and educational researchers, as well as students, parents, school administrators, and policymakers, could have access to the same set of records and add their interpretations to those records for access by others in both synchronous and asynchronous conversations about the problems of teaching. In 1999, we are closer to the IWE becoming a reality than we were ten years ago, and perhaps it represents an idea of where qualitative research on teaching might be going. New technologies for recording and archiving video and audio data and increasingly sophisticated communications and database technologies have great promise for integrating broad sweeps with deep analyses. Decreased financial and cognitive costs of access means that communication between scholars and practitioners can be more readily established on a common base of information. Electronic communications enable participation in conversations about a common text among participants that are not limited by time and place. And new database technologies make possible links between primary sources and interpretations of those sources, opening up new ground on the old questions of how "results" of research are to be reported and their validity judged.

What research on teaching has become, particularly in the hands of teacher researchers, opens up new prospects and new puzzles for qualitative research. The new tools that practitioners and researchers have at their disposal will change both what kind of data can be collected and how analyses of that data can be carried out and communicated. As qualitative research on teaching evolves, practitioners and researchers will need to take account of the contributions of teachers who take on the responsibility of using these tools as a basis for generating context-specific professional knowledge. Practitioners and researchers will need to consider what counts as a "good" interpretation of events as the stories of practitioners about those events are placed alongside interpretive scholarship of various sorts. And practitioners and researchers will need to face the representational challenges of communicating about practice when it has been "known" from the inside. As we allow more voices into the conversation and enable the juxtaposition of their analyses, we will struggle with understanding the nature of practice, the nature of knowledge, and what knowledge is good for.

Notes

1. For example, George Dennison, *The Lives of Children* (New York: Random House, 1969); James Herndon, *The Way It Spozed to Be* (New York: Simon & Shuster, 1968); John Holt, *How Children Fail* (New York: Pitman, 1964) and *How Children Learn* (New York: Pitman, 1967); Herb Kohl, *36 Children* (New York: New American Library, 1967); Jonathan Kozol, *Death at An Early Age* (New York: Houghton Mifflin, 1967).

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

2. *The Dewey School*, written by teachers at Chicago Lab School (Katherine Camp Mahew and Anna Camp Edwards [New York: Appleton-Century, 1936]), is a particularly interesting example of this genre.
3. See, for example, Marilyn Cochran-Smith and Susan Lytle, "Research on Teaching and Teacher Research: The Issues that Divide," *Educational Researcher, 19*, No. 2 (1990), 2–11; Kathy Carter, "The Place of Story in the Study of Teaching and Teacher Education," *Educational Researcher, 22*, No. 1 (1993), 5–12, 18; Virginia Richardson, "Conducting Research on Practice," *Educational Researcher, 23*, No. 5 (1994), 5–10; D. Jean Clandinin and F. Michael Connelly, "Teachers' Professional Knowledge Landscapes: Teacher Stories — Stories of Teachers — School Stories — Stories of Schools," *Educational Researcher, 25*, No. 3 (1996), 24–30.
4. Gary R. Anderson and Kathryn Herr, "The New Paradigm Wars: Is There Room for Rigorous Practitioner Knowledge in Schools and Universities?" *Educational Researcher, 28*, No. 5 (1999), 12–21, 40.
5. See "2000 Annual Meeting Call for Proposals," *Educational Researcher, 28*, No. 4 (1999), 39.
6. See, for example, Joan Krater, Jane Zeni, and Nancy Devlin Cason, *Mirror Images: Teaching Writing in Black and White* (Portsmouth, NH: Heinemann, 1994); Karen Hale Hankins, "Cacophony to Symphony: Memoirs in Teacher Research," *Harvard Educational Review, 68* (1998), 80–95; and Karen Gallas, *Talking Their Way into Science: Hearing Children's Questions and Theories and Responding with Curricula* (New York: Teachers College Press, 1995).
7. See, for example, Sarah Warshauer Freedman, E. R. Simons, J. S. Kalnin, A. Casareno, and the M-CLASS Teams, *Inside City Schools: Investigating Literacy in Multicultural Classrooms* (New York: Teachers College Press, 1999).
8. See, for example, Timothy J. Lensmire, *When Children Write: Critical Re-visions of the Writing Workshop* (New York: Teachers College Press, 1994); Deborah Lowenberg Ball and Suzanne M. Wilson, "Integrity in Teaching: Recognizing the Fusion of the Moral and Intellectual," *American Educational Research Journal, 33*, No. 1 (1996), 155–192; Magdalene Lampert, "When the Problem Is Not the Question and the Solution Is Not the Answer," *American Educational Research Journal, 27*, No. 1 (1990), 29–64.
9. For example, "Voices from the Classroom," sponsored by The Center for Research on Evaluation, Standards and Student Testing (CRESS), Davis, CA; the teacher research section of the Ethnography Forum, University of Pennsylvania; The International Conference on Teacher Research, held annually by the National Writing Project; The Spencer Foundation; National Council for Teacher Education (NCTE).
10. See Susan Florio-Ruane, "Conversation and Narrative in Collaborative Research: An Ethnography of the Written Literacy Forum," in *Stories Lives Tell: Narrative and Dialogue in Education*, ed. Carol Witherell and Nel Noddings (New York: Teachers College Press, 1991), p. 247.
11. Kenneth Zeichner and Susan Noffke, "Practitioner Research," in *Fourth Handbook of Research on Teaching*, ed. Virginia Richardson (Washington, DC: American Educational Research Association, in press).
12. Dan Lortie, *Schoolteacher* (Chicago: University of Chicago Press, 1975), p. 230.
13. Michael Huberman, "The Model of the Independent Artisan in Teachers' Professional Relations," in *Teacher's Work*, ed. Judith Warren-Little and Milbrey McLaughlin (New York: Teachers College Press, 1993), pp. 11–50; Judith Warren Little, "The Persistence of Privacy: Autonomy and Initiative in Teachers' Professional Relations," *Teachers College Record, 91* (1990), 509–536.
14. Zeichner and Noffke, "Practitioner Research"; Michael Huberman, "Moving Mainstream: Taking a Closer Look at Teacher Research," *Language Arts, 73* (1996), 124–140.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

15. The potential of National Board for Professional Teaching Standards (NBPTS), Interstate New Teachers Assessment and Support Consortium (INTASC), and National Council for the Accreditation of Teacher Education (NCATE) to support this development are described in *What Matters Most: Teaching for America's Future* (New York: National Commission on Teaching and America's Future, 1996). For a discussion of the difference and relationship between local and professional language, see Donald Freeman, "Renaming Experience/Reconstructing Practice: Developing New Understandings of Teaching," *Teaching and Teacher Education, 9* (1993), 485–497.
16. For an application of this idea to teacher development, see Mary K. Stein, Edward A. Silver, and Margaret Schwan Smith, "Mathematics Reform and Teacher Development: A Community of Practice, Perspective," in *Thinking Practices in Mathematics and Science Learning*, ed. James Greeno and Shelly Goldman (Mahwah, NJ: Lawrence Erlbaum, 1998), pp. 17–52.
17. See Deborah Lowenberg Ball and Sylvia Rundquist, "Collaboration as a Context for Joining Teacher Learning with Learning about Teaching," in *Teaching for Understanding: Challenges for Policy and Practice*, ed. David K. Cohen, Milbrey W. McLaughlin, and Joan E. Talbert (San Francisco: Jossey-Bass, 1993), pp. 13–42; Suzanne Wilson, Carol Miller, and Carol Yerkes, "Deeply Rooted Change: A Tale of Learning to Teach Adventurously" in *Teaching for Understanding: Challenges for Policy and Practice*, ed. David K. Cohen, Milbrey W. McLaughlin, and Joan E. Talbert (San Francisco: Jossey-Bass, 1993), pp. 84–129.
18. Catherine Lewis and Ineko Tsuchida, "A Lesson Is Like a Swiftly Flowing River," *American Educator, 22*, No. 4 (1998), 12–17, 50–51; N. Ken Shimahara, "The Japanese Model of Professional Development: Teaching as Craft," *Teaching and Teacher Education, 14* (1998), 451–462.
19. Lynne Paine and Liping Ma, "Teachers Working Together: A Dialogue on Organizational and Cultural Perspectives of Chinese Teachers," *International Journal of Educational Research, 19* (1993), 675–698.
20. See John Elliot, "School-Based Curriculum Development and Action Research in the United Kingdom," in *International Action Research: A Casebook for Educational Reform*, ed. Sandra Hollingsworth (London: Falmer Press, 1997), pp. 17–28.
21. I refer to "How Do Teachers Manage to Teach?" *Harvard Educational Review, 55* (1985), 180; see also footnotes to this article and its brief review of supporting literature.
22. This address was published as Ivor Goodson, "Representing Teachers: Bringing Teachers Back In," in *Changing Research and Practice: Teachers' Professionalism, Identity, and Knowledge*, ed. Michael Kompf, W. Richard Bond, Don Dworet, and R. Terrance Boak (London: Falmer Press, 1966), pp. 211–221. The quote is on pp. 215–216.
23. Cynthia Chambers, "Review of Teachers as Curriculum Planners: Narratives of Experience," *Journal of Educational Policy, 6* (1991) 353–354 (p. 354 quoted in Goodson, "Representing Teachers," p. 216).
24. Kathy Carter, "The Place of Story in the Study of Teaching and Teacher Education," *Educational Researcher, 22*, No. 1 (1993), 11 (quoted in Goodson, "Representing Teachers," p. 220).
25. Louise Kidder and Michelle Fine, "Qualitative Inquiry in Psychology: A Radical Tradition," in *Critical Psychology: An Introduction*, ed. Dennis R. Fox and Isaac Prilletensky (Thousand Oaks, CA: Sage, 1997), pp. 34–50.
26. Deborah Lowenberg Ball, "Working in the Inside: Using One's Own Practice as a Site for Studying Teaching and Learning," in *In Research Design in Mathematics and Science Education*, ed. Anthony Kelly and Richard Lesh (Amsterdam: Kluwer, 1999), p. 400.
27. For examples of multiple stories being told about the same teaching events, see Harriet Bjerrum Nielsen, "Seductive Texts with Serious Intentions," *Educational Researcher, 24*, No. 1 (1995), 4–12.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

28. Katherine Merseth and Catherine Lacey, "Weaving Stronger Fabric: The Pedagogical Promise of Hypermedia and Case Methods in Teacher Education," *Teaching and Teacher Education*, 9 (1993), 283–299; Gary Sykes and Tom Bird, "Teacher Education and the Case Idea," in *Review of Research in Education*, ed. Gerald Grant (Washington, DC: American Educational Research Association, 1992). pp. 457–521; Deidre LeFevre, "Why Video?" Unpublished manuscript, University of Michigan, 1999.
29. For a full description of this project and references to similar projects, see Magdalene Lampert and Deborah Ball, *Teaching, Multimedia and Mathematics: Investigations of Real Practice* (New York: Teachers College Press, 1998).
30. Lee Shulman, "Those Who Understand: Knowledge Growth in Teaching," *Educational Researcher, 15*, No. 2 (1986), 4–14.
31. See, for example, the essays in Sueann Ambron and Kristina Hooper, *Interactive Multimedia: Visions of Multimedia for Developers, Educators, and Information Providers* (Redmond, WA: Microsoft Press, 1988).
32. Shulman, "Those Who Understand," p. 12.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.