Teacher Research and the Problem of Practice

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What knowledge informs practice? How does this knowledge become ensconced in a practitioner's repertoire? How can new knowledge change practice? To many academics and scientists, the answer to these questions lies in getting practitioners to pay attention to and use current research. To practitioners, research-informed pressure for changes in practice often seems unrelated to what is needed in day-to-day and minute-by-minute interactions. To educational reformers, these questions are critical because understanding what teachers do, how they do it, and why they do it is central to any effort at reshaping education policy around teacher education, teacher professional development, and school reform. Any effort to bring researchers, practitioners, and policy makers together in order to influence practice is what Shonkoff (2000) described as a "true cross-cultural experience"(p. 182) in that it "requires respect for their differences as well as a commitment to their shared mission" (p. 182). In this special issue of Teachers College Record, we posit teacher action research as a bridge connecting research, practice, and education policy—as an important and practical way to engage teachers as consumers of research, as researchers of their own practice who use research to shape practice, as designers of their own professional development, and as informants to scholars and policy makers regarding critical issues in the field.

Situating Teacher Research as Research

Teacher research draws on the rich traditions of qualitative research in anthropology, education, and social work (Eisner & Peshkin, 1990; Ely, Anzul, Freidman, Garner, & Steinmetz, 1991; Erickson, 1986; Lewin, 1948; Miles & Huberman, 1984; Spindler, 1982; Spradley, 1979; Wolcott, 1973). Although not a new form of research, its increased use in teacher education (Cochran Smith & Lytle, 1999; Korthagen, Loughran, & Russell, 2006; Lampert & Ball, 1999; Tabachnich & Zeichner, 1991), in teacher professional development (Ball & Cohen, 1999; Little, 2007; Putnam & Borko, 2000), as an integral aspect of lesson study (Hiebert, Gallimore, & Stigler, 2002), and in assessing the impact of education policy (Erickson & Christman, 1996; Zeichner, 1993) has given it increasing visibility as a powerful form of inquiry for teachers examining the effectiveness of various interventions, for researchers trying to discern the impact of research on practice, and for education policy makers curious about the ways in which policy is understood and enacted.

Cochran-Smith and Lytle (1999) defined *teacher research*

> in the broadest possible sense to encompass all forms of practitioner inquiry that involve systematic, intentional, and self-critical inquiry about one's work in K-12, higher education, or continuing education classrooms, schools, programs, and other formal educational settings. This definition includes inquiries that others may refer to as action research, practitioner inquiry, teacher inquiry, teacher or teacher educator self study, and so on, but does not necessarily include *reflection* or other terms that refer to being thoughtful about one's educational work in ways that are not necessarily systematic or intentional. (p. 22)

Because it is intimately embedded in practice and in the time frames of teachers' lives in classrooms, teacher research describes a form of qualitative inquiry that draws on techniques that are generally already part of the instructional tool kit of most practitioners. These include classroom maps, anecdotal records, time-sampled observations, samples of student work, drawings and photographs, audio and video recordings, interviews, conversations, surveys, and teachers' journals. Generally, these are used by teachers over time to answer questions about practice.

In teacher research, the focus is on one particular question and on the responses of students and others to specific actions taken to try to address the question. As Lytle and Cochran-Smith (1992) wrote, "Almost by

definition, teacher research is case study—the unit of analysis is typically the individual child, the classroom, or the school" (p. 466). Ritchie (2006), herself a teacher, noted that this work is different from more traditional educational research in that it is conducted by "insiders" in real classrooms and school settings; it is practical; it values individual and group reflection; and its conclusions inevitably inform practice in the individual setting, though these may not be generalizable to many other settings.

TEACHER RESEARCH AND THE ACADEMY

Like traditional educational research, teacher research is contextually specific and investigates questions that are core to teaching and learning. It draws on traditions of qualitative research in that its focus is process, and because it requires a search for relationships among data sets, it fits within the traditions of quantitative research. But is it "real" research?

Answering that question has everything to do with what questions one expects research to answer. If the questions being asked can contribute in substantive and substantial ways to our understandings of teaching, learning, and schools, and thus to the knowledge base of educational practice, it may indeed be counted as real research (Hiebert et al., 2002). As Lytle and Cochran-Smith (1992) argued, "Teacher research is a way of generating both *local knowledge* and *public knowledge* about teaching; that is, knowledge developed and used by teachers for themselves and their immediate communities, as well as knowledge useful to the larger school and university communities" (p. 450). Further, because it is situated in the lived experiences of teachers, it is, as Lytle and Cochran-Smith noted, "well positioned to produce precisely the kind of knowledge currently needed in the field" (p. 466).

The problem with teacher research for many in the academy is that it appears to stand outside accepted paradigms of scholarship (Anderson & Herr, 1999). Teacher research presents a challenge to existing forms of academic knowledge in that the insider stance of teacher researchers, the foci of their inquiries, the ways in which their data are collected, and the validity of their findings challenge more traditional norms of objectivity, replicability, rigor, and reliability. As Anderson and Herr noted, "For many academics, the acceptance of practitioner research is given only on the condition that a separate category of knowledge be created for it" (pp. 14–15).

Like Cochran-Smith and Lytle (1999), Rust and Meyers (2006) reject the notion of teacher research as a separate category of knowledge. Instead, Rust and Meyers, following Cobb, McClain, Lamberg, and Dean

(2003), proposed teacher research as a *boundary object*—that is, "a relatively transparent carrier of meaning for members of the community in which [it was] created" (Cobb et al., p. 19) that is likely to "be used differently and to come have different meanings if it is incorporated into the practices of other communities" (p. 19). Like Zeichner (1995), who argued that "our vision of educational research should include both teacher produced knowledge and knowledge produced by those in the academy" (p. 153), and Cochran-Smith and Lytle, who claimed that "this kind of research has the potential to transform university culture" (p. 21), Rust and Meyers offer action research as a powerful vehicle to break down what Anderson and Herr (1999) described as "the divisions that have been erected between the theoretical and the practical" (p. 19).

Rust and Meyers (2006) posited an understanding of teacher action research

> as the essential activity of a reflective teacher, as a viable means for teachers to question the impact of their practice on student achievement and as a way of bringing teachers' voices into the discourse around education policy. In the first sense of action research, we think of the enquiry that guides the activities that teachers engage in every day. In the second sense, our work has shown us that when teachers question their practice and gather and analyze data using tools easily incorporated into everyday teaching, an improvement in practice is a logical outcome. In the third sense, we see action research as a powerful vehicle for communicating the ways in which education policies affect the complex realities of the daily lives of teachers and children in schools to the larger public. (p. 73)

The academy–practitioner debate may not be easily resolved, but as Hiebert and his colleagues (2002), writing about lesson study, noted, there is reason for optimism:

> To be successful in the U.S. context, the research and development system needs to incorporate the expertise and unique skills of both teachers and researchers. Both communities would need to reorient their professional goals and values. Teachers would need to change their view that teaching is a personal private activity and adopt the more risky but rewarding view that teaching is a professional activity that can be continuously improved if it is made public and examined openly. Researchers would need

to move from undervaluing the knowledge teachers acquire in their own classrooms to recognizing the potential of personal knowledge as it becomes transformed into professional knowledge. (p. 13)

TEACHER RESEARCH BEYOND THE ACADEMY

For many teachers, teacher research offers the possibility of border crossing—of bridging the gap between academic research and knowledge derived from practice. As a *boundary object* (Cobb et al., 2003), teacher research speaks to teachers with an authenticity that many teachers find absent from research on or about teachers because in teacher research, teachers recognize themselves and their settings. But teacher research also speaks to researchers who have documented life in classrooms, often helping them to see more deeply into the complexity of classroom activity and to more closely apprehend how teachers think and how decisions are made. And teacher research can speak to policy makers who, as Wesley and Buysse (2006) noted, make decisions in many ways—"sometimes with scientific evidence at the forefront of decision-making; sometimes with consumer preferences, cost effectiveness, ideology, and other influences at play; and often through a process that considers all of these types of information and more" (p. 119). Shonkoff (2000) wrote that "policy-makers are persuaded by compelling stories and the selective use of evidence. Policy-makers mobilize information to support an agenda" (p. 181). Thus, for policy makers at local, state, and national levels, the rich contextual narrative of teacher research can help to clarify the impact of policy as it enters the school and classroom. Research that can cross the boundaries of each of these domains, that can be considered valuable in each, is essential to enable substantive educational reform.

Professional Development

Across professions, continuing education of professionals is an essential process, especially where change in and support of practice are concerned. It is in professional development (whether it be professional preparation or ongoing professional education) that research and practice are meant to come together. Researchers in medicine (Haines & Donald, 2002), education (Ball & Cohen, 1999; Guskey, 1986; Hiebert et al., 2002), and social work (Rapoport, 1985) find simply handing out information to be generally ineffective with regard to changing or updating practice. So too are periodic workshops and lectures that are not connected to practice nor aimed at a systematic refining of practice

(Lampert & Ball, 1999; Lieberman & Miller, 1991, 2001). The failure of most professional development activities relates in part to a failure to appreciate the change process; in part to a failure to grasp the developmental trajectory of professionals; and in part to a lack of understanding of the ways in which adults learn.

THE PROCESS OF CHANGE

The Rand Study of Education Innovation (Berman & McLaughlin, 1978), a comprehensive review of 25 years of dissemination efforts, laid out four stages of change: (1) mobilization, (2) implementation, (3) adoption, and (4) institutionalization. In each stage, teachers play a critical role. What the Rand study's authors found was that innovations were rarely adopted in whole. Rather, the ways in which innovations were introduced, monitored for use, and supported determined whether the innovations were ultimately adopted in the form intended. And even when adopted, it was the rare innovation that actually became part of the fabric of the institution as its way of addressing a particular aspect of the educational enterprise. Barriers to institutionalization had to do with changes in personnel, lack of resources, and, most important, lack of ongoing support for teachers to use the innovation faithfully.

   What has become increasingly clear to researchers of educational reform is that serious deep-rooted change takes time (Fullan, 1993; Sarason, 1982) and that teachers must be an integral part of the change process (Ball & Cohen, 1999; Hiebert et al., 2002; Lieberman & Miller, 1991, 2001). Cochran-Smith (2002) holds that making teachers part of that process must begin with their professional preparation and that developing an inquiry stance is critical. But an inquiry stance on the part of an individual teacher is not enough. Since the time of the Rand study, researchers have shown that there are three essential characteristics of successful professional development for teachers: (1) it must be focused on issues and content that meet teachers' needs and that are integral to their work (Little & McLaughlin, 1993; Thompson & Zeuli, 1999); (2) it must be integrated into the school day and school year in ways that enable teachers to fully use the innovation (Hawley & Valli, 1999; Lieberman & Miller, 1991; Staub, 2004); and (3) it must be sustained over time (Fullan, 1993, 2007).

TEACHER DEVELOPMENT

Cochran-Smith (2002), Korthagen and Kessels (1999), Korthagen, Loughran, and Russell (2006), Rust (2007), and others encourage us to

look at teacher professional development as part of a broadly conceived model of teacher education. If one was to try to conceive of this model in a linear way, a time line that begins with the teacher's birth and ends with her retirement from the profession would be apt. In a small box about a third of the way along the time line, one could place what we currently think of as teacher education—that year or two or four when teachers are in their college/university-based preparation programs. Visualizing the lifeline of a teacher in this way, one would see that teacher education occupies a very brief moment along the whole line of a teacher's professional life.

During the time before teacher education, as Lortie's (1975) research made so clear, teachers are engaged in an "apprenticeship of observation" during which they are, often tacitly, forming their understandings of teaching and learning, and developing expectations for themselves and for the profession. Thus, they move into their formal teacher preparation with already well-conceived perspectives on teaching and learning. Those who discount teacher education assert that teacher education has no impact, that teachers essentially operate from those tacitly held beliefs about teaching and learning developed prior to teacher education. Those who hold that teacher education can have a significant impact on teachers' long-term professional development hold that it is essential to probe those tacit understandings (Korthagen & Kessels, 1999; Korthagen et al., 2006; Rust, 1999) and engage preservice teachers in inquiry around practice (Cochran-Smith, 2002) .

Cochran-Smith (2002) argued for the development of an inquiry stance by teacher educators as well as by their students: "When inquiry is regarded as stance rather than as project or strategy, all the members of a community are regarded as learners, and the model of an expert transmitting information to others with lesser or lower status knowledge or position is conspicuously absent" (p. 9). As Cochran-Smith demonstrated, when preservice teachers are encouraged to develop an inquiry stance during their preparation, they are more likely to become both "user(s) and creator(s) of knowledge" (p. 19) as professionals. Preservice programs that engage both students and faculty in developing and operating from an inquiry stance (see examples in Korthagen et al., 2006) situate the teacher preparation process as a powerful transformative experience that enables new teachers to move into their professional lives having examined the belief systems that they developed during their "apprenticeships of observation," having learned to shape questions around practice, and having engaged in study and inquiry of theory and research on critical issues in the field—all essential to developing as a

teacher researcher, all essential to changing the ways in which schools and teachers work.

ADULT LEARNING

Recent advances in brain research and cognition (Bransford, Brown, & Cocking, 1999) show that adults as much as children are constructors of knowledge: They need to be scaffolded (supported) as they learn new material; they need to be able to engage in trial and error; they need to be able to practice new skills and receive feedback from respected others; and they need to have models of practice. In teaching, as in other fields, we now understand that ways of knowing are informed by interaction with others who are trying similar things and confronting similar issues. It is here, in what Wenger (1998) described as "communities of practice," that inquiry on the part of the individual teacher becomes most powerful, for, as Lewis and Tsuchida (1998), Rust and Meyers (2006), Zeichner and Noffke (2001), and others have shown, it is in concert with others that teachers hone their questions, share their observations, and come in contact with current research. It is here that new forms of practice are introduced, studied, refined, and internalized. When teachers work together as colleagues (Wenger, 1998) in focused, collaborative inquiry (Hiebert et al., 2002; Lewis & Tsuchida; Stigler & Hiebert, 1999), they are likely to be successful at substantively changing their practice—the ultimate goal of most educational innovation and professional development.

Teacher Research as Professional Development

The studies in this issue of *Teachers College Record* are the work of a group of teachers—all MetLife Fellows in the Teachers Network Leadership Institute (TNLI). These are K–12 teachers in public schools who are intent on bringing the voices of teachers into the policy arena using their own and their colleagues' research as their platform for action. The process that each of these teachers follows has been described by Meyers and Rust (2003) and Rust and Meyers (2006): They shape questions that relate to significant issues in their own classrooms and schools; they read current research that relates to their topic focus; they determine appropriate actions and try them out; they monitor the impact of their action; and they discuss and analyze their data vis-à-vis the research that has informed their inquiry. The step that makes the work of these teachers somewhat different from that of other teacher researchers is the effort to make the connection between research and policy. Rust and Meyers

(2006) described this last part—the publication, dissemination, and push for public discourse—as the "bright side of teacher research, the explicit, open, successful outcome of thoughtful enquiry" (p. 79). "Such public forums," they wrote, "enable discussions of education policy and place teachers as knowledgeable partners in these discussions" (p. 79). Hiebert and his colleagues (2002) described this step as essential to developing professional knowledge: "We propose that professional knowledge must be public, it must be represented in a form that enables it to be accumulated and shared with other members of the profession, and it must be continually verified and improved" (p. 4).

But the questions before us here are: (1) Is teacher research a viable form of professional development and an important means of engaging teachers in using current scholarship? and (2) does this work enable the bridging of research and practice and thereby translate into changes in practice and better outcomes for students? Rust and Meyers (2006) answered these questions with their study of 89 TNLI teachers who responded to surveys and interviews. Regardless of the number of years of teaching experience, the teachers claimed that they had become "more reflective, more critical and more aware" (p. 81). "Their comments," wrote Rust and Meyers, "suggest that TNLI provides a powerful forum for professional development and that participating in a network and sharing their action research is generative to this experience" (p. 81).

The teachers claimed that the work of participating in action research and sharing their work in the network had also affected their students. They described "using research from colleagues as well as the academy to improve practice" (p. 82) and "implement[ing] new strategies and . . . improv[ing] student achievement as a result of the TNLI involvement" (p. 82). We expect that readers of this special issue will see evidence that could support similar claims made by this group of teacher researchers.

What we cannot claim is that teacher research alone will resolve the problem of practice. The studies that appear here were developed over time. They were nurtured in a unique forum that enables conversation and collaboration among teachers, between teachers and scholars, and between teachers, scholars, and policy makers. In such an environment, it is possible for teachers to develop and maintain the inquiry stance that is essential to teachers' continuing education and to the development of powerful forms of practice. In such an environment, it is possible to see, as Lewis and Tsuchida (1998), Stigler and Hiebert (1999), and Hiebert et al. (2002) have shown, that the opportunity to take charge of one's practice in purposeful, collegial forums enables a refining of practice that strengthens both the individual and the group. In such an environment,

teacher research offers the possibility of translation between the academy and the world of practice, and between research, policy, and practice. Nurtured in these special circumstances, the studies in this volume of *Teachers College Record* demonstrate how teacher research can serve as a powerful tool for solving the problem of practice.

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