The Value of Teacher Research: Nurturing Professional and Personal Growth through Inquiry

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Anyone who has ever been a teacher knows that teaching is a complex, challenging, and often uncertain process. There are no absolute answers for how best to teach young children. However, research has shown that students of teaching tend to believe there is some set of "right answers" to the problems of teaching, and they hold fast to the image of teachers as consumers and disseminators of information (e.g., Stremmel et al. 1995). If there is one thing confirmed by both the professional literature on teaching and the anecdotal experiences of many teacher educators, it is the assertion that teaching is more than technique (Schön 1983; Ayers 1993; Cochran-Smith & Lytle 1999). Teaching is a process involving continual inquiry and renewal, and a teacher, among other things, is first and foremost a questioner (Ayers 1993; Hansen 1997).

The conventional and restricted vision of the teacher as technician—consumer and dispenser of other people's knowledge—has been reinforced, however, by No Child Left Behind and its focus on high-stakes accountability and standards-based instruction (Liston, Whitcomb, & Borko 2007). Nevertheless, Cochran-Smith and Lytle (1999) suggest that the narrow notion of teacher as technician has been a catalyst for the current teacher-as-researcher movement in the United States. This movement has helped reunite two complementary and natural sides of teaching—reflection and action (thinking and doing). The teacher research movement also has helped teachers reclaim inquiry as a legitimate means of gaining knowledge and insights about teaching and learning. In this article, I paint a more promising and encompassing view of teaching as an inquiry process, a view that sees teachers as researchers who take seriously the study of self with the aims of bringing about personal, social, and educational change (Dewey [1933] 1985, [1938] 1997; Meier & Henderson 2007).

What is teacher research?

Teacher research is a form of action research, research designed by practitioners to seek practical solutions to issues and problems in their professional and community lives (Corey 1953; Stringer 2007). The ultimate goal is change or the improvement of the problematic situation. In the education literature, *teacher research* and *action*

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research are often used interchangeably, the latter being the preferred term in Britain (Cochran-Smith & Lytle 1993). Not all teacher research is action research, however, as noted by Meier and Henderson (2007). Although teacher research has the goal of some type of action to improve practice, action research typically focuses on behavior or organizational change through inquiry conducted collaboratively among researchers (not necessarily teachers) and those who will benefit from the

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action. Teacher research takes many forms and serves a range of purposes, but it is conducted by teachers, individually or collaboratively, with the primary aim of understanding teaching and learning in context and from the perspectives of those who live and interact daily in the classroom (Zeichner 1999; Meier & Henderson 2007).

However termed, most teacher educators and researchers agree that teacher research is intentional and systematic inquiry done by teachers with the goals of gaining insights into teaching and learning, becoming more reflective practitioners, effecting changes in the classroom or school, and improving the lives of children (Cochran-Smith & Lytle 1993, 1999). Teacher research stems from teachers' own questions about and reflections on their everyday classroom practice. Although these questions and reflections are context-specific, they enable the teacher to relate particular issues to theories of teaching and learning by documentation and analysis of such issues; hence, teacher research links theory with practice (Bullough & Gitlin 2001).

Distinct from conventional educational research, which examines teacher knowledge and practice from an outsider perspective by employing quantitative methods and epistemologies embedded in the academic culture, teacher research primarily uses qualitative methodologies to examine teaching practice from the inside. Although traditional quantitative methods can be used, qualitative methods (e.g., journaling, direct observation, keeping field notes, conducting interviews, collecting artifacts) typically are more appropriate for addressing the complex nature of teaching and learning (Davis 2007). Teacher researchers attempt to create new knowledge, or what may be called *local knowledge,* about teaching and learning, that will contribute to improving classroom practice.

Because the word *research* is often associated with the use of rigorous scientific methods to study teaching, the term *inquiry* often has been preferred. However, as I will discuss later, the distinction between teacher research and university-based, academic research about teaching is less about methodology and more about the very nature of educational practice (Anderson & Herr 1999). According to Dewey ([1933] 1985), education is best practiced as inquiry, and teacher research employs the "scientific approach" to inquiry. A defining feature of teacher research is the teacher's dual role as practitioner and researcher within the classroom, where like scientists and educational researchers, they encounter real problems, experience obstacles to understanding, and ponder daily as to why things are as they are. What distinguishes teacher research from teaching reflectively is the commitment to a disciplined method for gathering and analyzing data, and the fact that the research can be publicly shared (Borko, Liston, & Whitcomb 2007).

> **Teacher researchers attempt to create new knowledge about teaching and learning to improve their practice.**

Cochran-Smith and Lytle (1993) describe two major categories of teacher research: conceptual and empirical. Conceptual research, which is theoretical and philosophical, includes teachers' essays, conversations, stories, and books that represent extended interpretations and analyses of various aspects of teaching. Examples of conceptual research include the works of teachers like Gallas (1998), Kohl (1967), and Paley (1979), and books like *Teachers' Stories* (Jalongo & Isenberg 1995). Empirical research involves the collection, analysis, and interpretation of data.

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This type of teacher research is pursued in such activities as written narratives of lived classroom experiences, such as case studies, journal accounts, and teacher autobiography, and through classroom studies that explore teachers' work using data based on observation, interviews, and document collection (e.g., Paley 1986; Bissex & Bullock 1987; Ayers 1989; Hankins 1998).
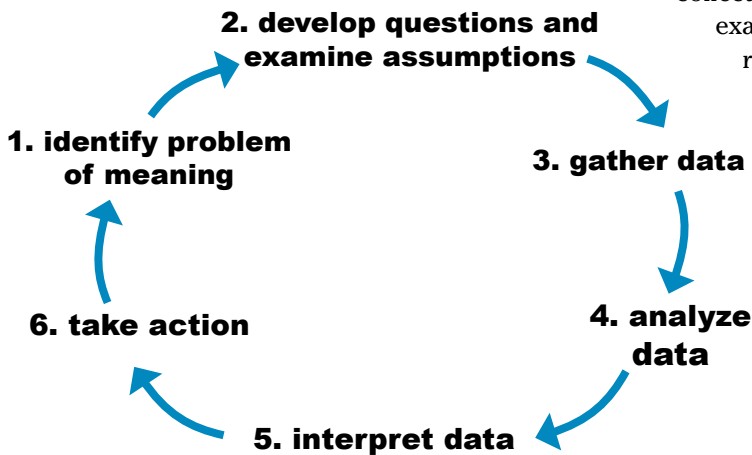
While some teachers regard inquiry as a natural part of their everyday work in the classroom (e.g., Paley 1981), some teachers conduct inquiry in other teachers' classrooms (e.g., Hankins 1998). Still other teachers and administrators collaborate with university researchers while teaching full-time in their classroom or center, contributing insights to the questions under investigation (e.g., Miller 1990; Nicholls & Hazzard 1993; Booth & Williams 1998; Stremmel & Hill 1999; Charlesworth & DeBoer 2000). Whether reflecting on experiences in the classroom or systematically studying an issue, teachers are often in the best position to ask and answer questions about children and learning.

Three components of the research process

Regardless of how teachers engage in inquiry, teacher researchers, like their academic counterparts, begin with a problem. McLean (1995) delineates three major components of teacher research: conceptualization, in which a significant problem and relevant research questions are identified; implementation, in which data are collected and analyzed; and interpretation, in which findings are examined for meaning and appropriate actions are taken as a result. A brief example of this process follows.

After expressing a problem, a teacher may draw upon a combination of theory and intuition, experience and knowledge of children, observation and reflection, and perhaps the experiences of valued colleagues to develop questions and assumptions (hypotheses) relevant to that problem. These questions develop gradually after careful observation and deliberation about why certain things are happening in the classroom. These questions are not aimed at quick-fix solutions, but rather involve the desire to understand teaching or children's learning in profound ways. Information (data) is collected through multiple means, which might include doing formal and informal observation, conducting interviews, collecting artifacts, or keeping a journal, to name a few. Assumptions may be reformed or reconstructed with the gathering and analysis of evidence. Ultimately, discoveries are used to further reflect on and address the original problem, and the cycle of inquiry continues as the teacher lives out his or her questions in the classroom. This process, often more messy and disorderly than may be implied here, is nonetheless a process of reflective inquiry, as shown in the diagram "The Cycle of Teacher Inquiry."

2. develop questions and examine assumptions

1. identify problem of meaning

3. gather data

6. take action

4. analyze data

5. interpret data

The Cycle of Teacher Inquiry

The value of teacher research

Because teachers are the ones most affected by university-based research and the policies derived from such research, it seems reasonable that they would want to have the opportunity to contribute to the discourse on and knowledge base of research on teaching. Although its primary purpose is to help practitioners better understand teaching and learning and to improve practice in specific and concrete ways, teacher research can and often does lead to significant change—for example, in helping schools develop new curriculum methods or improving parent-teacher partnerships within university lab school settings (see Fu, Stremmel, & Hill 2002).

The real value of engaging in teacher research at any level is that it may lead to rethinking and reconstructing what it means to be a teacher or teacher educator and, consequently, change the way teachers relate to children and students.

Evidence suggests that teachers who have been involved in research may become more reflective, more critical and analytical in their teaching, and more open and committed to professional development (Oja & Pine 1989; Henson 1996; Keyes 2000; Rust 2007). Participating in teacher research also helps teachers become more deliberate in their decision making and actions in the classroom. We live in an age of accountability, and more than ever teachers, schools, and school districts are being held accountable for the policies, programs, and practices they implement. Teachers must be able to make informed decisions about what they do in the classroom; therefore, they need to be much more deliberate in documenting and evaluating their efforts. Teacher research is one means to that end.

Teacher research is largely about developing the professional dispositions of lifelong learning, reflective and mindful teaching, and self-transformation (Mills 2000; Stringer 2007). The real value of engaging in teacher research at any level is that it may lead to rethinking and reconstructing what it means to be a teacher or teacher educator and, consequently, the way teachers relate to children and students. Furthermore, teacher research has the potential to demonstrate to teachers and prospective teachers that learning to teach is inherently connected to learning to inquire (Borko, Liston, & Whitcomb 2007). The ultimate aim of teacher research is transformation, enabling teachers to develop a better understanding of themselves, their classrooms, and their practice through the act of reflective inquiry (Stremmel, Fu, & Hill 2002).

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Reframing the role of teacher

Primary among the factors creating renewed interest in teacher research was the growth in the appreciation and value of qualitative methods in educational research and the concurrent shift from thinking about teacher research as something done *to* teachers to something done *by* teachers (Zeichner 1999; Lampert 2000). Although debate continues about the value and limitations of quantitative versus qualitative inquiry in educational research (e.g., Davis 2007), there has been a shift from an exclusive reliance on quantitative methods to the use of a broader range of qualitative methodologies (e.g., ethnography, narrative inquiry, biography, and autobiography) in the study of teaching and teacher education (e.g., Borko, Liston, & Whitcomb

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2007; Hatch 2007). The growth in these qualitative methodologies occurred in response to questions regarding the relevance of quantitative inquiry in addressing the issues and concerns of teachers and to the changing perception of teachers as researchers, as opposed to passive consumers of research on teaching.

Teachers have often felt that traditional educational research is not relevant to their needs or is written in a way that fails to help them understand their classroom situation. In short, traditional research on teaching often pursues the wrong questions and offers unusable answers. Furthermore, teachers have often felt left out of research activity. Missing, therefore, in the traditional educational research is the real-life context of the classroom and the voice of the teacher (Lytle & Cochran-Smith 1990; Davis 2007).

As an example, rather than asking what teaching methods are effective, teacher research provides an insider perspective that allows teachers to address the important question: What does teaching mean? The answer to this question requires ethnographic methods, which may include participant observation, interviews, and document analysis. The emphasis on meaning making enables teachers to better understand and interpret their own teaching.

A similar example pertains to the question: How do children learn? Although the research literature on children, their thinking, learning, and development is vast and ever increasing, teachers can never know enough about children and their experiences in the classroom to feel confident that they can deal with the complexities and uncertainties that classroom life creates. When teachers conduct their own systematic research into the problems they encounter in their classrooms and schools, they do so not only to address issues that existing research has not and perhaps cannot address, but also with the intent of improving the lives of children, their own practices, and the culture of the classroom and school.

Partnerships in inquiry

As university-based researchers have become more interested in and involved with problems in teaching and schools, they have recognized teachers as knowledge generators, and there has been greater interest in seeing the development of a knowledge base for teaching practice as a shared responsibility (Lytle & Cochran-Smith 1990; Bickel & Hattrup 1995). This interest in shared responsibility has been evident not only in the growing emphasis on university-teacher collaborations but also in collaborations among teachers themselves, among teachers and school administrators, and among teachers and parents. Research that is conducted by teachers or among teachers, administrators, and parents in collaboration provides a unique look at the program from the differing perspectives of those who have special insights and knowledge of children, curriculum, and teaching and learning.

> **University-based researchers have begun to recognize teachers' roles in contributing to the knowledge base about teaching practice.**

Increasingly, graduate and undergraduate programs in early childhood education are teaching students the skills and dispositions to be researchers in their classrooms

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and are offering courses that require them to conduct action research projects (see, for example, Grossman 1998; Strasser 2000; Cooney, Buchanan, & Parkinson 2001; Goldhaber & Smith 2002; Hill, Stremmel, & Fu 2005; Hatch, Greer, & Bailey 2006; Moran 2007; Rust 2007). Many of these programs utilize university child development laboratories as the primary site for inquiry. As centers of critical and collaborative inquiry, lab schools offer opportunities for teachers to produce knowledge as they interact with children in complex and challenging teaching and learning situations (Zeichner 1999).

These programs typically are grounded philosophically in social constructivist, reflective, inquiry-based, and Reggio Emilia-inspired approaches that have self-transformation and educational renewal as explicit goals. These programs help prospective teachers to think and act like researchers who rely on keen observation, reflection, and documentation to become better curriculum planners and to highlight or illuminate traces of experience from which learning can be inferred. Such programs are based on a belief in the value of integrating teaching and research and the notion of teaching and its study as legitimate scholarship.

Whether in partnership with other teachers, teacher educators, or university researchers, teachers themselves must be viewed as knowledge generators and partnerships must allow for supportive and reciprocal relationships. To be maximally effective, all participants must be seen as equal and full partners in the research process (Bickel & Hattrup 1995).

Is teacher research real research?

While university-based research is often criticized as focusing too narrowly on educational issues and problems in isolation from actual settings, teachers, and children (Zeni 2001), teacher research is often perceived as being a lesser form of scholarship, even though it may contribute to the knowledge base of teaching and learning. Attitudes about the rigor and status of practitioner research still need to be addressed. In particular, there is the view held by academic scholars that teacher research as a form of local knowledge that leads to change within classrooms is acceptable, but that when it is presented as public knowledge with claims beyond the practice setting, validity may be questioned (Anderson & Herr 1999). While there may be disagreement over how to evaluate the quality of teacher research, there is agreement that standards for rigor must be maintained (Zeichner & Noffke 2001; Freeman et al. 2007).

Like any sound research, teacher research must be systematic and all procedures must be carefully documented. Second, multiple approaches to inquiry—multiple sources of data and multiple approaches to data analysis—are essential to the quality and authenticity of teacher research (Cochran-Smith & Donnell 2006). Third, teacher research must be relevant to problems of practice and provide legitimate bases for action. The findings and interpretations derived from the research must be trustworthy, addressing the question: "Can the findings be trusted enough

to act upon them?" And they must be believable, or have verisimilitude, which addresses the question, "Do the findings appear to be true or real in the experience of teaching?"

Bell (1985) outlines four criteria that may be used to evaluate the quality or rigor of teacher research:

> **Credibility**—Is the study believable to those who are competent to judge the subject of investigation?
>
> **Transferability**—Does the study promote the exchange of experience from one practitioner to another?
>
> **Dependability**—Does the study use reliable procedures and produce findings that are trustworthy?
>
> **Confirmability**—Is the study capable of being scrutinized for absence of bias by making its evidence and methods of analysis available?

Teacher research that illuminates the complexity of teaching and relates it to learning is certainly likely to be viewed as credible. When it is well designed, teacher research has the potential to contribute substantially to the knowledge base of teaching and teacher education, in particular that learning to teach is inherently connected to learning to inquire.

Conclusion

Ayers (1993) has stated that teachers need to be part detective, searching for children's clues and following their leads, and part researcher, gathering data, analyzing the information, and testing hypotheses. But, in moving from the perspective of teacher as consumer and deliverer of facts toward that of teacher as protagonist who generates new knowledge and understanding of children and teaching, we have to think differently about the meaning of teacher as researcher. To begin with, the act of research must be redefined as something teachers do as part of their teaching. Teaching must be viewed as more than action and activity; it must be seen as reflection, speculation, questioning, and theorizing.

Whether it involves the daily observations of children and written reflections on what happens in the classroom, or the purposeful and solution-oriented investigation of particular classroom issues or problems, teacher research stems from questions and reflections on everyday practice and a desire to improve teaching and learning (Hansen 1997). Because teachers have established relationships with children, knowledge of their classroom culture, and insights into problems of daily practice, they have a distinct advantage over outsiders—university-based, academic researchers—in conducting ethnographic and interpretive research.

When teachers form reciprocal and full partnerships with other teachers and university researchers, addressing shared concerns and questions, they increase the likelihood of developing richer understandings of their teaching, their students, and themselves. Furthermore, they can share in the professional responsibility of adding to the knowledge base on teaching and learning, and may potentially alter what we now consider to be the appropriate standards and practices in the dialogue of applied qualitative research (Lampert 2000; Zeichner & Noffke 2001; Freeman et al. 2007).

If teacher researchers are to make a large-scale impact, they need to have appropriate and accessible outlets for their discoveries. Over the last ten years, there has been an increasing number of professional book publications devoted to teacher research (see, for example, Hubbard & Power 1999; Mills 2000; Meier & Hender-

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son 2007; Stringer 2007). Additionally, there are more published studies of teacher research appearing in both research and practitioner oriented journals. For example the journals *Teacher Research: A Journal of Inquiry, Educational Action Research,* and *Studying Teacher Education: A Journal of Self-Study of Teacher Education Practices* are devoted entirely to teacher research. Several other journals, like *Harvard Educational Review, Teaching and Change, Teaching and Teacher Education,* and *Journal of Early Childhood Teacher Education* (a publication of the National Association of Early Childhood Teacher Educators), are very open to publishing the work of teachers, students, and teacher educators who engage in reflective inquiry. Moreover, NAEYC's early childhood practitioner journal *Young Children*'s online feature, Voices of Practitioners, welcomes all forms of teacher research.

Increased interest in inquiry-based curriculum, Reggio Emilia–inspired practices (e.g., pedagogical documentation and projects or *progettazione*), and renewed interest in the philosophy of John Dewey may be associated with the growing amount

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of teacher research being published (Hill, Stremmel, & Fu 2005; Meier & Henderson 2007). Nevertheless, comparatively little teacher research of any kind that is generated in local settings for local purposes gets published, though much of it is shared orally at regional and national teacher research or teacher education conferences such as the NAEYC's Annual Conference and Professional Development Institute and the American Educational Research Association' Annual Meeting (Zeichner & Noffke 2001).

It should be noted that although there is a tendency to think of the products of research as a presentation or publication directed to academic audiences, teacher research must be first and foremost accessible and relevant to those who conduct it and those in situations where it is immediately applicable. Teacher research must have the potential to make a difference in the lives of those who confront real issues and problems in particular sites, at particular moments, and in the lives of particular individuals and groups.

Although often associated with educational or teacher reform, the recasting of teacher as researcher seems most consistent with the notion of teacher renewal, which is concerned primarily with growth in knowledge and self-awareness necessary to improve practice. An essential aspect of teacher research is reflection, with the eventual aim of ongoing redefinition and renewal (Stremmel, Fu, & Hill 2002). In reflection we become present to ourselves. Reflection in and on practice leads to awareness and understanding. It helps us become aware of what is appropriate and possible in the classroom. And it keeps us from being mechanical about our thoughts, emotions, actions, and reactions in the classroom.

Teacher research is liberating and empowering inquiry that allows teachers and teacher educators to take their lives as teachers seriously, to generate knowledge and understanding that can improve teaching and create a more democratic and equitable learning community. Most important, teacher inquiry allows teachers to simultaneously study their teaching, their students, and themselves—the images they hold of children as learners and themselves as teachers—and as a result, it allows the possibility of transformation and renewal.

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