

Teacher inquiry as professional development for the 21st century in the United States.

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Whether the process is called teacher research, classroom inquiry, collegial inquiry and collaborative reflection, or inquiry-oriented research, a growing niche has been established in the educational world. Teacher inquiry refers to the growing body of literature accumulating over the last decade that portrays examples of practitioners' analysis of classroom struggles from teachers' own perspectives. The idea of inquiry embodies how teachers make explicit and probe further their wonderings, reframe and modify their questions and enlighten their perceptions and sense-making of their classroom practice. When conducted in the intricate, and chaotic context of the classroom's trials and tribulations, teacher research furnishes rich descriptions of the teaching and learning process. The phrase, 'teacher research,' celebrates the growth of educational praxis, informed practice, through the empowerment of teachers as they make explicit and begin to transform their world. The teacher research movement is growing, and moving in many directions. As a powerful and dynamic stimulus, teacher inquiry has the potential to transform the educational profession. But as an ineffective and stagnant procrastinator, teachers can use the process of inquiry merely to reinforce and celebrate what they are already doing well, instead of pushing themselves to examine and make sense of their daily classroom experiences, beliefs and assumptions about the teaching and learning process. At its peak performance, teachers can change their alliance with pedagogical content knowledge and schooling practices, simultaneously rearranging the hierarchical relationships that currently exist to the brokers of knowledge

in schools, the university arenas and the wider community. Through teacher-research communities, teachers' voices play a more prominent part in the dialogue of professional development and school reform.

What is teacher inquiry and why is it important? What might teacher inquiry look like? What is the relationship between teacher inquiry and teacher professional growth? These are serious questions that educators across the United States are asking as teacher inquiry emerges as a popular movement that is shaping the profession in the 21st century. The purpose of this article is to provide an overview of the teacher inquiry movement in the United States by posing these questions and providing answers based on the literature and our collective experience working with practicing and prospective teachers and administrators across the state of Pennsylvania as they explore notions of what it means to be a teacher inquirer and engage in inquiry in their own classrooms and schools. In providing this overview, we hope to give insights into the power teacher inquiry holds to transform classrooms, schools, and the teaching profession to places where knowledge about teaching and learning are generated from and used by those closest to the children – classroom teachers and principals.

WHAT IS TEACHER INQUIRY AND WHY IS IT IMPORTANT?

Two paradigms have dominated educational research on schooling, teaching and learning over the past two decades. The underlying conceptions of 'process-product research' (Shulman, 1986) paradigm portray teaching as a primarily linear activity and depicts teachers as technicians. The classroom practitioner's role is to implement the research findings of 'outside' experts, almost exclusively university researchers, who are considered alien to the everyday happenings in classrooms. In this transmissive mode teachers are expected, and constrained, to be problem-solvers but not problem-posers. Teachers negotiate dilemmas framed by outside experts. Teachers do not problematize their lived classroom experiences or first-hand observations because to do so may mean an admittance of failure. In fact teachers can suffer punitive repercussions from highlighting areas that teachers themselves identify as problematic, the consequences of which are often the remediation processes imposed as traditional top-down 're-training.' In this view, our educational community does not encourage the recognition of classroom problems.

In the second paradigm research from qualitative or interpretative studies presumes that teaching is a highly complex, context-specific, interactive activity and that differences across classrooms, schools, and communities are critically important. Most of these qualitative or interpretive studies are published by university researchers and are intended for academic audiences. Such school-university research provides valuable insights into the connections between theory and practice but, like process-product research, limits teachers' roles in the research process. In fact, the knowledge about teaching and learning generated through university study of theory and practice is still defined and generated by "outsiders" to the school and classroom. While both the

process-product and qualitative research paradigms have generated valuable insights into the teaching and learning process, they have also severely limited what we know about teaching and classroom lives as well as possibilities for change since these approaches have not included the voices of the people closest to the children – classroom teachers.

Hence, another way of thinking about emerging research practices has been shaped by such labels as “teacher research,” “teacher inquiry” or “action research.” In general, the teacher research movement focuses on the concerns of teachers (not outside researchers) and continually involves them in the design process, data collection, and interpretation. Termed “action research” by Carr and Kemmis (1986), this approach to educational research has many benefits:

(1) theories and knowledge are generated from research grounded in the realities of educational practice, (2) teachers become collaborators in educational research focusing on their problems for investigation, and (3) since teachers play a part in the research process, they are more likely to facilitate change based on the knowledge they create.

Elliot (1991) describes action research as a continual set of spirals consisting of reflection and action. Each spiral involves:

- Clarifying and diagnosing a practical situation that needs to be improved or a practical problem that needs to be resolved.
- Formulating action-strategies to improve the situation or resolve the problem.
- Implementing the action strategies and evaluating their effectiveness.
- Further clarification of the situation resulting in new definitions of problems or of areas for improvement, and so on to the next spiral of reflection and action (p. 163).

It is important to note that although the terms teacher research, action research, and teacher inquiry are comparatively new, the underlying conceptions of teaching as inquiry and the role of teachers as inquirers are not. The call for inquiry-oriented classroom practitioners encapsulating the notion of teacher inquirers is advocated early this century by Dewey (1933) in his call for teachers to engage in “reflective action.” Zeichner (1996) refers to citations advocating more than 30 years of research of the concepts pertaining to informed practice, illustrated in the propagation of such descriptors as “teachers as action researchers,” “teacher scholars,” “teacher innovators,” and “teachers as participant observers” (p. 3). Similarly, in response to those who brand teaching as the acquisition of technical skills, Schon (1983, 1987) depicts teacher professional practice as a cognitive process of posing and exploring problems and dilemmas identified by the teachers themselves. In doing so, teachers ask questions that other researchers may not perceive as relevant, and they discern patterns that ‘outsiders’ may not be able to see. Teacher as teacher researcher refers to the growing body of literature accumulating over the last decade that portrays examples of teachers’ analysis of classroom struggles from teachers’ own perspectives.

We believe that one of the simplest and most eloquently stated definitions of teacher research comes from the work of two teacher researchers we have collaborated with from Pennsylvania, USA, as well as the work of Cochran-Smith and Lytle (1993). We end this section with definitions of teacher research using their words:

Teacher research enables me to investigate one of my wonderings in a deliberate fashion. I used the tools of a researcher to investigate my own environment. Teacher research provides the impetus for teachers to find various solutions to their own questions. By definition then, it is relevant inquiry (David Borst, 1999).

Teacher research is a method of gaining insight from hindsight. It is a way of formalizing the questioning and reflecting we, as teachers, engage in every day in an attempt to improve student learning (Lori Brown, 1999).

Teacher research is systematic, intentional inquiry by teachers about their own school and classroom work (Cochran-Smith & Lytle, 1993, p. 24).

WHAT MIGHT TEACHER INQUIRY LOOK LIKE?

Essentially research is nothing but a state of mind . . . a friendly, welcoming attitude toward change . . . going out to look for change instead of waiting for it to come (Kettering, in Boyd, 1961)

Just as hikers gather certain equipment before proceeding with a hike, teachers who are inquirers need maps and compasses before they embark on the research journey. The map for the teacher inquiry journey is what Kettering refers to as the welcoming attitude toward and active seeking of change. This attitude lays the foundation for the journey. The compass for teacher inquirers that provides the direction for inquiry comes from critical reflection in and on their own teaching practice.

When teachers seek out change and reflect on practice, the first steps of their journey begins with brainstorming questions or wonderings that they wish to explore. One teacher inquirer describes the preparation for the journey and the first steps as:

A teacher inquirer is someone who searches for questions as well as answers. I am learning that saying, "I don't know" is not an admittance of failure, but a precursor of positive change. I have become comfortable with the expressions: "I wonder..." "I think..." and "What if...?" (Patricia Stiles, 1999).

A teacher's wonderings and questions come from their "real world observations and dilemmas" (Hubbard and Powers, 1993, p. 2). Some examples of wonderings that teacher researchers from across the state of Pennsylvania have pursued in their classrooms include:

- How can I encourage more girls to participate more fully and take thoughtful risks in high school mathematics?
- How can I help my third grade students grow as writers in my classroom?
- How does this new spelling program contribute to 4th graders spelling progress in my classroom?
- How does a cooperative learning environment influence an apraxic/ gifted child?
- In what ways do my classroom management and practices deter from my philosophy of teaching and my beliefs about how children learn?
- In what ways can puppets be utilized to enter the world of first graders and enhance classroom instruction?

Once a teacher inquirer has defined a focus for their work and a wondering to pursue, the next step in the journey is developing a plan for data collection. Meaningful teacher inquiry should not depart from the daily work of classroom teachers, but become a part of their daily work. Hence, developing a plan for data collection means thinking about life in the classroom/school and the ways life in the classroom/school can be “captured” as data.

To capture “action” in the classroom, many teacher researchers observe and take fieldnotes, tape record or video tape and transcribe, diagram the classroom, or have others such as an administrator, co-teacher researcher, paraprofessional, student teacher, instructional support teacher, curriculum specialist, or university researcher take notes for them. As a method of tracking student productivity in the classroom, many teachers save student work, stamping dates on work to know when it was produced. Additionally, teacher researchers may collect classroom, and school or school district artifacts. These include all documents that are produced in the classroom or school that may be related to the research wondering such as curriculum guides, parent newsletters, and correspondence to and from parents, principal, and specialists.

To capture the talk that occurs in the school and in the classroom, teacher researchers may employ interviewing. Interviews can be informal, spontaneous, or more thoughtfully planned. Depending on the teacher researcher’s wondering, interviewing children in the classroom as well as adults such as parents, administrators, other classroom teachers, and instructional support teachers can be a rich source of data.

To capture the thinking that occurs in the school and classroom, teacher researchers often keep their own journals reflecting on their own thought processes as well as ask students to journal about their thinking related to the project at hand. Additionally, more formal mechanisms can be employed (such as surveys and sociograms) to capture the action, talk, thinking and productivity that are a part of each and every school day. Data collection is not separate from teaching, but a part of what the teacher does each day in the classroom.

As teacher researchers collect data, they simultaneously engage in data analysis. Hubbard and Power (1993) describe data analysis as “the process of bringing order, structure, and meaning to the data, to discover what is underneath the surface of the classroom” (p. 65). Analysis involves reading and rereading the data looking for categories or patterns to appear. Clearly, this inductive process brings the teacher closer to the happenings within her classroom and builds meaningful connections between her work and opportunities for enhancing her work with children. The careful teacher researcher may employ the following methods and strategies for data analysis: indexing, analyzing student work, memos, the constant comparison method, and triangulation (Hubbard and Power, 1993).

Indexing involves listing the categories and themes that have been identified by the teacher in the data and each page on which the category or theme appears. Next, the teacher researcher reflects on the themes, and may begin to sort those themes into categories by importance. Analyzing student work means sorting samples by categories that have emerged from other data sources or sorting based on categories that emerge by looking across all student work. Each sample is marked with the category name, and samples are then organized by category. Memoing involves the teacher researcher writing a narrative passage reflecting on the categories that are emerging from the data. The constant-comparative method developed by Glaser and Strauss involves for steps simply described by Hubbard and Power (1993) as: (1) analyzing data in terms of categories and concepts, (2) integrating the conceptual categories and properties of the categories, (3) defining the emergent theory and testing the theory against the data, and (4) writing up the theory by describing and summarizing it. Finally, teacher researchers can use a method called triangulation that involves comparing multiple sources of data to support a finding.

Throughout the teacher research process, teacher researchers also search for and read relevant literature related to their work. In essence, the literature serves as another source of data, another way to systematically gain insights into the question or wondering the teacher researcher pursues. By utilizing the literature as a data source, a teacher researcher’s work is located within and connected to the thinking of others in the field of education.

The final process of teacher research is writing up the results of a particular inquiry and sharing the findings with others. Some school districts, school-university partnerships, and other educational communities in the United States have teacher researcher conferences dedicated solely to providing a forum for teacher researchers to share their work. Some teachers present their work at state and local conferences, or for colleagues during a district inservice day. Others share their work at faculty meetings. Still other teacher researchers disseminate their work in journals designed with a teacher researcher audience in mind such as *Teacher Research: The Journal of Classroom Inquiry*, *Teaching and Learning: The Journal of Naturalistic Inquiry*, and *Pennsylvania Educational Leadership*.

While the subject of teachers' inquiries are vast, in our work with Pennsylvania teachers, four general categories for their work have emerged and include: (1) focus on some aspect of pedagogy, (2) focus on a particular child/children in the classroom, (3) focus on one's own teaching beliefs, and (4) focus on the curriculum. Whatever the subject of a teacher's inquiry, the process of teacher inquiry is exhilarating, renewing, and rewarding for teachers. We again return to the words of teacher inquirers and Cochran-Smith and Lytle as we end this section:

Feeling validated - for me that's the effect of taking time to record and analyze data that most of us teachers subconsciously collect everyday. On a personal level, taking the time to record my observations reminds me of how important these observations really are. Talking to others about what I see and hear also reminds me that my experience in the classroom has made me an expert in commenting on the significance of what goes on there. Writing down my wonderings, my theories, and my conclusions forces me to articulate those often unrecognized musings and awarenesses that tug at the back of my mind as I struggle through my daily routine. In short, systematically examining my experience and viewing myself as a teacher researcher have increased my level of confidence. (Dana Lawlor, 1999).

Engaging in teacher research made me feel that I had power. I felt power in obtaining my own knowledge, power in sharing this knowledge with my students and colleagues (Dawn McKee, 1999).

Teacher research as a powerful way for teachers to understand how theory and their students construct and reconstruct the curriculum. By conducting inquiry on their own practices, teachers identify discrepancies between their theories of practice and their own practice, between their own practices and those of others in their schools, and between their ongoing assumptions about what is going on in their classrooms and their more distanced and retrospective interpretations. Inquiry stimulates, intensifies, and illuminates changes in practice. (Cochran-Smith & Lytle, 1993, p. 51).

WHAT IS THE RELATIONSHIP BETWEEN TEACHER INQUIRY AND TEACHER PROFESSIONAL GROWTH/STAFF DEVELOPMENT?

Teacher inquiry is a vehicle for teacher professional growth because the inquiry process necessitates teachers questioning their own practice, systematically studying their own practice, and ultimately changing their own practice. This differs from traditional professional development for teachers which has typically focused on the knowledge of an outside "expert" being shared with groups of teachers. This model of professional growth, usually delivered as a part of traditional staff development, may be an efficient method of disseminating information but often does not result in real and meaningful change in the classroom.

Those dissatisfied with the traditional model of professional development suggest a need for new approaches that enhance professional growth and lead to real change. For example, over twenty-five years ago, Goldhammer (1969) emphasized the need for supervision to become an opportunity to help teachers understand what they are doing, and why, by changing schools from places where teachers just act out “age-old rituals” to places where teachers participate fully in the process of supervision and their own professional growth. More recently, Nolan and Huber (1989) described teacher reflection, a key factor in inquiry, as the “driving force” behind successful professional development programs. Nolan and Huber describe successful professional development programs as “making a difference in the lives and instruction of teachers who participate in them, as well as the lives of the students they teach” (p.143).

Consonant with the movement to change traditional professional development practices in the past quarter of a century is the teacher inquiry movement. This movement towards a new model of professional growth based on inquiry into one’s own practice can be powerfully developed, by school districts and building administrators, as a form of staff development. By participating in teacher inquiry, the teacher develops a sense of ownership in the knowledge constructed and this sense of ownership heavily contributes to the possibilities for real change to take place in the classroom.

The ultimate goal is to create an inquiry stance toward teaching. This stance actually becomes a professional positioning, owned by the teacher, where questioning one’s own practice becomes part of the teacher’s work and eventually a part of the teaching culture. By cultivating this inquiry stance toward teaching, teachers play a critical role in enhancing their own professional growth and ultimately the experience of schooling for children. Thus, an inquiry stance is synonymous with professional growth and provides a non-traditional approach to staff development that can lead to meaningful change for children.

Hence, teacher researchers within a district or school who take an inquiry stance toward teaching continue to renew and grow as professionals throughout their careers. Staff development means creating space and time for teachers to collaborate in inquiry, share the results of inquiry, and connect with other teacher researchers across the nation. These inquiry opportunities offer an alternative to the traditional “one shot deal, sit and get” inservice days and provide a meaningful vehicle for teachers to participate in their own professional growth that can enhance children’s classroom experiences. To conclude this section, we once more end with the words of a teacher researcher and Cochran-Smith & Lytle:

I discovered the rich source of information that lies within my own classroom and expertise. During my inquiry, I felt like a manufacturer of knowledge rather than merely a consumer of methods produced by those outside the classroom. Who better to answer questions about my own classroom and teaching than me? (Lori Brown, 1999)

(Teacher research is) a powerful way for teachers to understand how they and their students construct and reconstruct the teaching and learning that occur in their classrooms and schools. When teachers themselves conduct research, they make problematic what they think they already know, what they see when they observe their own students as learners, and what they choose to do about the dichotomies that often exist in their classrooms, schools, and communities (Cochran-Smith & Lytle, 1993, p. 64).

CONCLUSION

The teacher research movement is growing, and moving in many directions. At its best, teacher research can become meaningful professional development that celebrates the knowledge and expertise of teachers. Teacher research can inform teachers' understandings of pedagogical content knowledge and schooling practices. Teacher research can also alter the traditionally hegemonic power and hierarchical relationships that currently exist between teachers, administrators, the university, and the wider community. This movement has the potential to transform the profession. But at its worst, teachers and administrators can use research strategies merely to reinforce and celebrate what they are already doing well, instead of pushing themselves through inquiry to examine and make sense of their daily classroom experiences and beliefs and assumptions about the teaching and learning process. In this article we have provided an overview of teacher research and the promise it holds for the teaching profession and the field of curriculum and staff development. For the promise to be fulfilled, teachers and administrators must begin the research journey.

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