

# Yes, No, Maybe, Teachers' Reactions to Action Research

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*In this article we will describe teachers' reactions to a summer curriculum/professional development institute focused on action research. The purpose of our study was to take a microscopic look at the point in which participants in this ongoing professional development network began to investigate action research and come to terms with its relationship to their identities as teachers. We used a qualitative research design that incorporated participant observation, videotape analysis, and analysis of teachers' daily reflective journals. Our analysis offers an understanding of how personal and professional security, experience with an ongoing professional development network, and experience in teaming with others mediated teachers' readiness to consider the role of action research in their teaching. In making meaning of the relationship between themselves and action research, teachers sought conceptual connections between action research and existing constructs about teaching, while weighing the impact of potential obstacles. The teachers who could more easily see the potential for action research, as an extension of their everyday work, informing their teaching, enhancing their professional growth, and providing a vehicle for educational change, were most ready to consider learning about and engaging in action research*

## Introduction

On the first day of a professional development institute, we asked the question, "How many of you think of yourself as a researcher?" Of the 45 elementary and middle school teachers in the room, only four raised their hands. Two weeks later at the end of the institute, most of the teachers were planning a research project, or at least planning to collect data on some aspect of their teaching, during the upcoming school year. What happened in the institute that created this change in teachers' responses? How did it happen?

In this article we will describe teachers' reactions to a summer curriculum/professional development institute focused on action research. Questions that guided this study included: How did teachers respond to the summer institute activities? What meaning do they make of action research? What dilemmas arose? What hopes and concerns did teachers initially have about conducting research? How did teachers come to understand the place of research in their identity as teacher? These research questions guided our plans for teaching about action research as well as collecting data on this teaching. Subsequently, our data analysis process, and findings informed our follow-up interactions with these teachers. We will set the stage for discussion of our findings by articulating our theoretical lens, and then establishing the context of our study within the Project SMART professional development summer institute.

## Theoretical Framework

Three assumptions guided our thinking in this study. First, we commit to a teaching/learning process which is based on constructivist pedagogies (Fosnot, 1996) where learners negotiate their journeys. Engaging teachers to plan action research projects in their own settings reflects constructivist teaching. Second, we are drawn to the ability of qualitative inquiry for providing a holistic, naturalistic, inductive understanding of how people make meaning of their worlds. Action research, where teachers research within their own settings, is well suited to the characteristics of qualitative inquiry. Third, we recognize that in order to understand our efforts, we must be mindful of the implicit and explicit power relations that mediate our interactions and our learning in this project. Thus, we add a critical perspective to our teaching and research practices.

*Action Research as a Vehicle to Teachers Constructing Knowledge.* Action research has been recommended as a powerful form of professional development (Patterson et al., 1993), as a vehicle for school reform (Allen, 1995), and as a mechanism for empowering teachers to generate knowledge about teaching rather than just receiving research findings (Cochran Smith & Lytle, 1993; Noffke & Stevenson, 1995). Our efforts follow the path described by Cochran-Smith and Lytle (1993) to support long term professional development projects that have evolved into teacher research sites where teacher knowledge of teacher practice

can be generated. Our recent foray into teacher research came from teacher participants who have gradually taken leadership roles in planning and conducting each summer institute and follow-up activities. In the 1995 institute teachers suggested that we focus on action research for 1996. We formed a team of teachers and university faculty who collaboratively planned the 1996 summer institute, and subsequently collected and analyzed data for the development of several conference papers. Many of the 45 teachers who attended this institute continue to contribute to the production of knowledge about teaching by engaging in a wide variety of action research projects, holding leadership roles in local and regional professional development initiatives, and participating in Project SMART professional development planning efforts.

*Qualitative Inquiry as a Lens for Understanding Teachers' Responses.* Using a qualitative inquiry (Patton, 1993) lens to assess programs allowed for a holistic, naturalistic, inductive interpretation reflecting the perspectives of the program participants (Bogdan & Biklen, 1992). Our program assessment strategies were based on Blumer's (1969; Wood, 1992) symbolic interactionist theory that human beings act toward things on the basis of the meanings that the things have for them and that these meanings derive from social interaction. We expected to gain an understanding of how participants made meaning of action research as well as their potential roles as action researchers by examining the actions and reaction of teachers to our teaching about action research. The data we collected on the project through participant observation, interviewing, and document review has given us a rich base for conducting inquiry into teachers' views of action research, and into our own teaching practice.

*Researchers, Teachers, and Power Relations.* Action research has the potential to support teachers in renegotiating power relations in teaching and in research. Our goal is to "contribute to a different theory of knowledge [that] would not simply add new knowers to the same knowledge base but would redefine the notion of knowledge for teaching and alter the locus of the knowledge base and the practitioner's stance in relation to knowledge generation in the field" (Cochran Smith & Lytle, 1993, p. 62). As we do the work of teaching about action research, we take account of how structures of teaching work to silence the voices of teachers in conversation about the knowledge of teaching (Weis & Fine, 1993). Like Martusewicz and Reynolds (1994), we are interested in encouraging teachers to "begin to identify themselves as producers of meaningful interpretations of the processes, practices, policies, relations, and experiences of education" (p. 17-18). We work to expose assumptions in the relations between teachers, professors, the knowledge of teaching, and educational research. Like Noffke (1997), we see action research as a mechanism for empowering teachers to generate knowledge about teaching rather than only to act as recipients of research findings.

#### *Background of Project SMART*

During the summer 1996, 45 teachers participated in a collaboratively planned institute in which action research was the focus. Over half of these teachers had prior experience working with this professional development program<sup>1</sup>. Several of the most experienced co-planned the institute with university faculty.

For the past ten years, Project SMART has included a two-three week summer institute in which teachers learn about teaching elementary science as they develop interdisciplinary units that integrate a field trip to a local business or industry. The institute also highlights a current issue in education, such as multicultural education, educational technology, student assessment, and, in 1996, action research. During each school year, institute participants implement the curricular units, conduct workshops to introduce others to Project SMART's curriculum model, and (starting in 1996-7) conduct research based in their teaching experiences. Each year at least 60% of the participants are returning teachers, so the institute has also developed its own culture, as experienced teachers pass on the tone and process of previous years.

Over time, a cohort of returning teachers expanded the focus of the project to include (a) more disciplinary perspectives leading to interdisciplinary units; (b) increased involvement of school administrators, business and industry representatives and parents; (c) regional, state, national, and international dissemination of the model and curriculum units; (d) increasing involvement of project teachers serving as adjunct professors in the college's preservice teacher education program; and (e) networking, coordination, and collaboration with other regional staff development initiatives. Experienced Project SMART teachers widened their contributions to conversations about teaching through all of these activities.

Project SMART is modeled to reflect effective professional development. It provides sustained contact, collaborative planning and working activities, use of integrated/inclusive curriculum, a focus based on the teaching context of participants, and pedagogy based on warranted practice (Darling Hammond, 1995; Lieberman 1995; Sparks, 1995; Stallings 1995). The shared understanding of professional development held by the classroom teachers and college faculty evolved over time. The initial process, though collaborative in nature and built upon notions of teacher empowerment, still left the teachers looking to faculty to translate *experts'* research about exemplary science teaching. Teachers played an ever increasing role in negotiating the interpretation of science education research expanding their spheres of professional commitment and institute planning. Professional development evolved as something mutually empowering. When teachers suggested they wanted a more active role in the research being conducted around this project, we collaboratively developed the summer institute on action research. We began planning for instruction in action research with an awareness of this unique instructional setting, in which teachers and profes-

sors collaborate to form a nurturing, sustained professional development context.

#### *Plans for Teaching Action Research and Description of Activities*

Within the ten-day (60-70 hour) summer institute, we planned to spend part of each day (1-3 hours) in activities focused on action research. We organized activities using Sagor's (1992) five steps for conducting action research: problem formulation, data collection (through observation and interviews or document review), data analysis (interpreting data, identifying themes), reporting of results, and action planning. Teachers on the planning team selected Sagor's book because of its clear structure and straightforward approach. The planning team also read Cochran Smith and Lytle (1993) and Allen (1995) who provided a more complex socio-political perspective rooted in a constructivist stance. During the institute, teachers worked in small groups on a variety of action research tasks to:

- identify and analyze research questions;
- observe video taped teaching lessons and share their notes and reactions;
- interview each other and examine documents collected from previous institutes and former studies of institute teachers' classrooms;
- develop and share plans to conduct their own research during the following school year; and,
- keep an ongoing "learning log" of these experiences and their reactions to them (Keen, 1996).

Since we were teaching about action research, we also modeled an action research process in order to assess our own instruction. While participants were engaging in activities to learn about action research, we collected data about our teaching and their reactions.

## Methods

### *Methods for Collecting Data During the Institute*

We collected field notes, memos, public documents, and artifacts of teachers' work as we participated and observed during the planning team meetings and summer institute sessions. We also videotaped each action research component of the summer institute. Half way through the institute, we collected audio tape recordings of forty participants who participated in interview diads in which a more experienced project teacher was paired with a less experienced teacher. Each interviewed the other regarding the meaning of the project in his or her professional life, and responses to institute activities. Finally, participants kept individual daily journals in which they reflected on the institute activities and their own evolving understanding of the meaning of action research. They outlined research ideas, reacted to activities and readings, and raised questions and concerns. Thirty-seven of the summer participants shared their journals with us.

### *Data Analysis Process*

Three classroom teachers and three faculty members met collaboratively over a series of five months to analyze the findings. We negotiated the research design, analytically reviewed each data source, and developed findings using a modified constant comparative approach (Bogdan & Biklen, 1992).

### *Articulating our Expectations of Teachers' Reactions.*

Our decisions about how to incorporate the theme of action research into the summer institute as well as how we would collect data about teachers' reactions to the work, were informed by our expectations of how the teachers would respond. We expected teachers would be interested in learning about action research and bring legitimate and important expertise to the discussions and activities, as they had done in past institutes. We expected teachers to recognize the potential benefits of conducting research in a systematic way; to have opportunity to contribute to the knowledge base about teaching and learning; and to grow professionally using opportunities to write papers and articles, present at conferences, and develop instructional materials all grounded in their own action research projects. We assumed that teachers would be interested in seeing themselves in the role of researcher. We extrapolated that these experiences would lead to improved teaching as teachers asked more questions about their own teaching, listened more to their students and colleagues, and modified their practice according to the results. We approached the data analysis ready to understand more clearly how teachers' reactions were manifested in their comments and reflective journals.

*Collaboratively Analyzing Data.* Each individual in our six-person team read a share of the 37 available journals looking for evidence of teachers' meaning making: strong statements or interesting thoughts relating to the institute or action research, patterns across journals, and any other comments about action research that seemed important. As a team, we compiled our initial findings, concluding that about 36 of the 45 participants ended the summer institute with generally positive reactions to action research. We discussed particular patterns that emerged, sharing specific examples of individual teachers' comments, discussing possible interpretations of various comments, and developing a very rough matrix of six to eight themes that were reflected across the journals.

We reviewed the journals again looking for evidence to clarify, confirm, or disconfirm the identified themes, or evidence of other previously unnoticed patterns in the comments. For example, one of our initial patterns seemed to be that more experienced Project SMART participants (those who attended previous institutes) seemed to have a more open stance towards action research. However some team members found exceptions to this trend. Therefore we all went back to the journals and tapes we were looking at, seeking confirming and disconfirming evidence regarding this relationship. We discovered that another variable, that of having previous collaborative experiences (e.g., team

teaching) seemed linked to this open attitude, and experienced SMART teachers who had previous experience teaming were most likely to have open attitudes. We also each viewed at least one videotape of a part of the institute looking to confirm, challenge, or expand on the themes. Three of us listened to the audio-taped interviews with the same purpose, and one of us developed some analytic charts comparing information. We modified the themes, and discussed the relationships between them. We worked through the data, each finding confirming and disconfirming examples of proposed themes, till we reached consensus on the themes shared in this paper. Once we formulated a theme (e.g., openness towards action research is related to previous teaching experience, experience collaborating, and experience on the project), we went back to the data to seek confirming and disconfirming evidence.

Throughout all of our meetings, we wove our own personal experiences and information from the literature on action research and professional development into the discussions of our analysis of the data before us. This led to a process of reflecting on our group process as a research team, and discussing dilemmas which arose in our interactions in relation to power, politics, traditional research paradigms, and teacher voice. This process led us to a description of participating teachers' growing understanding of the place of research in their teaching.

### Findings

*What Teachers Thought of Action Research.* Teachers' reactions to action research activities included a spectrum of responses: refusal to participate in some activities, hostile mistrust that we were merely trying to get them to do "professors' work," simple rejection of the idea that they could possibly find time, support, and skill to do research ("Action research seems like an enormous mountain to climb."); polite tolerance of the activities, guarded support for our efforts ("I found this part of the research interesting."); interest in getting more information; satisfied recognition that they had been collecting data and using it for decision making for years, but had never thought of it as research; and eagerness to begin a process of systematic data collection and sharing results ("Perhaps teachers in a building can come up with things to research in common. I'm thinking of starting a research study group in my building."). Even within individual teachers' journals and interview tapes acceptance and resistance to ideas ebbed and flowed.

Some teachers indicated that they would support this growth in research by holding awareness sessions at their own school, providing opportunities for support and sharing at county-wide meetings, and/or designing and conducting their own research during the upcoming year. Many shared an interest in having teachers report the results of their efforts at the next year's institute.

Three factors led to this range of reactions which stretched from rejection to an active embrace of action re-

search. Diverse responses to action research were related to: (a) teachers' levels of experience with teaching, collaboration, and/or Project SMART; (b) teachers' need to link action research to the immediacy of their own teaching; and (c) teachers' ability to integrate action research into their definition of what it means to be a teacher.

*The Connection Between Action Research and Teaching.* We found a higher interest in conducting action research from teachers who had extensive experience with Project SMART and/or team teaching. We also noted a tendency for teachers to acknowledge or seek out the close relationship between action research and other aspects of their work. Some spoke of its familiarity to the ways they currently analyze information about their students. One commented, "This is another way to talk about what teachers do all the time." Another commented that, "my students see themselves as researchers. This is not new to me." Many noted concerns about attempting action research that were posed by the current context in which they teach: "How will I find the time?" "What about money?" "Will my administrator support me to conduct research?" and "Will I do it right?"

It's not surprising that teachers exhibited a clear need to see an immediate relationship between the benefits of action research and their own teaching. Those who made this connection quickly were interested and open to learning about action research. Others eventually found some connections and considered the possibilities of action research. Others, still, were unable to or refused to make connections and rejected consideration of this process.

*Action Research and Teachers' Definitions of Teaching.* The ability to make a connection between action research and their teaching was mediated by teachers' varying definitions of what it means to teach, and what it means to do research. Those who saw action research as a formalization of a reflective process inherent in teaching were more willing to commit time and resources to learning more. One commented,

I can think of times I used this idea in an informal way to study my teaching, my students, and curriculum. It's helpful to have a better structure and format to use in the future. I also see a great potential for using it in my building to build relationships between teachers and to explore issues that affect both teachers and kids.

Those who defined action research as separate from and outside of teaching children were resistant to engaging in conversation about action research. They saw it as detracting from their curriculum development work in the institute.

About nine teachers continued to resist the topic, most were either new to teaching, and/or to the project. Through teaming efforts, these teachers may have had more positive experiences with collecting data and consciously explaining their teaching in ways that reflect a process necessary in action research.

*What We Learned about Teaching Action Research.* At the beginning of the institute we were surprised that any teachers were negative to the topic. It was only after reviewing data and conducting analysis that the reason for this became clear. Only a few experienced teachers had actually suggested this topic. We made the mistake of assuming the few spoke for all teachers, raising a question about who gets to speak for teachers when we consider teachers' voices. Our findings support the claim that learning about action research needs to be collaborative, ongoing, and recursive. Project SMART provides a site for this kind of learning. In addition, the findings underscore a constructivist notion that learning must be linked to what is familiar to learners. During the summer institute we discovered fast how important this seemingly simple claim is, as several teachers let us know we were not meeting their learning needs. They did not see the connection of action research to student learning, and that was their bottom line. Finally these findings provide a glimpse of how these teachers view their roles. Clearly a split exists between the role of teacher and the role of researcher in education. Our work is an attempt to bridge this gap.

### Implications

The purpose of our study was to take a microscopic look at the point in which institute participants began to investigate action research and come to terms with its relationship to their identities as teacher. In keeping with the vision of the Project SMART institute for collaborative work and constructivist pedagogy, we seek to add our voices to the knowledge of teaching and empowerment of teachers. With Fine (1994), Allen (1993), and others, we "share the conviction that educational research can no longer afford to be merely about schooling but needs to be conducted with educators and students, for educational change, and always be critical, collaborative, and creative" (Fine, 1994, p. 3). Achieving this goal is bound to extend our own understandings of the practices of teaching and research.

We have found evidence to support Cochran-Smith and Lytle's (1993) claim that when teachers conduct their own research, they become much more actively involved in the professional conversation of their work. Our work here also suggests that the converse of this claim is true: **when teachers become actively involved in the professional conversation of their work, they become much more interested in conducting their own research.** However, the simplicity of both of these descriptions belies the complexity of such a process. It is critical to consider teachers' background experiences and definitions of teaching in planning to teach them about action research.

Over the past 20 years educators have moved from talking about "inservice," to talking about "staff development," to talking about "professional development" with teachers. Regardless of the title, the underlying meaning of these terms usually indicated that some important thinking about teaching had occurred (usually by politicians, so-called

"experts" or researchers, or educational administrators). Once the thinking had solidified, it was time to inform the teachers about this revised thinking. Thus teachers' involvement in the change process occurred *after* the ideas had been formally established in the world of educational research, educational theory, or educational politics. Inservice, staff development, or professional development was something that happened to teachers after the fact. Even the terms inservice, staff-development, and even professional development reflect theory-to-practice or policy-to-practice paradigms for educational change (Noffke, 1997).

Action research implies a different paradigm, with very different timing for marking teacher involvement in educational change. This paradigm is a practice-to-theory or practice-to-policy concept. It implies that teachers are involved in educational thinking, research, planning, and therefore educational change *while revised thinking is being formulated.* The sustained nature of the Project SMART institute allowed for the most experienced participants to seek and take on this new role. Action research changes the meaning of professional growth suggesting that teachers can be agents rather than merely recipients of change. Action research is a vehicle to allow teachers to act as educational idea builders. In addition action research provides opportunities for teachers to understand, cope with, or create changes in educational thinking and practice.

Our findings in this study suggest that some teachers are more ready to accept these implied changes in professional development, as well as the changes it suggests for their roles as teachers. As teachers come to terms with a readiness to conduct action research, they exhibit a range of responses about the relationship between action research and their work of teaching. Our goal, then, must be to help teachers see how action research can fit into their definition of teaching. However, this does not mean that we recommend returning to the method of telling teachers about action research and how to apply it to their teaching. On the contrary, the Project SMART professional development process and this study make it clear that the development of an understanding of the relationship between professional development, action research, and teaching must grow through a collaborative process. Teachers must be engaged in negotiating the meanings of professional development *and* action research if they are to participate in developing the knowledge of teaching.

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## Footnotes

<sup>1</sup>The Project SMART annual summer institute has involved 25-45 teachers for the past ten years. More than 100 teachers have participated with many returning year after year. The range of attendance is from 1-10 years with the average attendance being 2.5 years per teacher.

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