A Framework for Understanding Action Research
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Abstract
Interest in action research has grown exponentially during the last twenty years. Each year, more and more educators are becoming involved in action research through a variety of activities, such as credit-bearing courses, school restructuring efforts, and professional development. Because of the different roles and voices of participants in these activities (teachers, teacher educators, school administrators, parents, and so on), multiple models of action research have evolved.

In this paper we present a framework for the comparison and evaluation of action research that transcends differences among existing models by creating a schema that has as its dimensions theoretical orientation (Grundy, 1987), purposes (Noffke, 1997), and types of reflection (Rearick). We tested our framework by analyzing several recent books on action research written by teacher educators to determine which orientations are served (technical, practical, emancipatory), what purposes of action research were emphasized (personal, professional, or political), and what type of reflective process were used (autobiographical, collaborative, or communal).
Introduction

What is action research? In this paper we seek an answer to this question. At first, it would appear that the answer would be some sort of definition. While there are a number of definitions for action research or teacher research found in the literature (e.g., Carr and Kemmis, 19XX; Cochran-Smith and Lytle, 1993), there have also been attempts to identify its varieties and to classify or categorize them in some manner (e.g., McKernan, 1988; Calhoun, 1993; King and Londquist, 1992; Noffke, 1997; Cochran-Smith and Lytle, 1993).

We, too, have taken the latter tack. However, through a review of the literature we have seen that previous attempts at classification have been uni-dimensional, such as by theoretical orientation, purpose or product, and relationships among the participants. We have also found that uni-dimensional categorizations do not adequately take into account the complexities of action research. Therefore, we have devised a framework along three dimensions: theoretical orientation, purpose, and type of reflective process. In this paper we describe how we developed this framework and give several examples of how it can be used to analyze different approaches to action research and particular examples of action research studies done by practitioners. We end by returning to our question, "What is action research?"

Theoretical Framework

We reviewed the literature on action research in teacher education from international perspectives (Carr and Kemmis, 1986; Grundy, 1987; McKernan, 1988; McTaggart, 1993; Noffke, 1990; Noffke, 1997; Whitehead, 1990). We traced the historical evolution of definitions, methods, and conceptions of action research in Australia, England, and the United States. In doing so, we found numerous examples of action research, which are varied and adaptable to unique situations and contexts. This has led to attempts to group these models into types so that they can be better understood. A number of articles and books have been written in which the authors develop classification schemes to compare and contrast, and trace the development of the different models of action research (Calhoun, 1993; McKernan, 1988; McTaggart, 1991; Cochran Smith and Lytle, 1993; Reason, 1994). For example, McKernan (1988) reviewed the evolution of the action research movement, then described "countenances of action research"--traditional, collaborative, and emancipatory-critical conceptions--which he tied to ideological perspectives.

- Type 1: Traditional action research, which assumes that participants have common interests and share consensus in problem resolution, seeks resolution within the system.
- Type 2: Collaborative, which has as its goal the reformation of curriculum and the development of teachers' research skills, stresses school reform.
- Type 3: Critical emancipatory, which has its roots in critical theory, is critical of the status quo, and seeks to reform the wider social structure.
Calhoun (1993) has taken a more technical stance and has grouped action research by the number of practitioners involved and the unit of analysis: individual, collaborative, and school-wide. Cochran-Smith and Lytle (1993) have produced a typology of teacher research that goes beyond the usual classroom studies to include teachers’ journals and essays, and oral inquiry processes. Noffke (1990) discussed the different views of the nature of teacher's work and the workplace on the various conceptions of action research.¹ Reason (1994) critically reviewed three approaches to participative inquiry: collaborative inquiry, participatory action research, and action science. Collaborative inquiry emphasizes the micro-processes of small group behavior, sometimes at the expense of the wider political processes that define reality. Participatory action research "romanticizes the goodness and democratic tendencies of the common people, and ignores the ways in which all groups may be destructive and distort their experience" (Reason, 1994, p. 335). Action inquiry emphasizes sharing of power, but fails to take seriously the ways in which democratic leaders are educated.

In our attempt to understand the connections among the various models and categorizations of action research, we determined that three dimensions---two of which have been used by other researchers---can be used to define a space in which all models can be located. These dimensions are theoretical orientation, purpose, and type of reflection. We define these dimensions operationally by locating three points in each.

Theoretical orientation

Along the theoretical orientation dimension are found the technical, practical, and the emancipatory (Grundy, 1987; Habermas, 1971; Van Manen, 1977). The technical orientation is similar to what Schon (1983) has described as technical-rational. It is positivist and assumes a stance in which problems are defined and solutions sought. The technical orientation is grounded in experiences and observations, and often relies upon experimentation (Grundy, 1987). It can result in the development of theories, propositions, and law-like hypotheses with empirical content. The technical orientation has "a fundamental interest in controlling the environment through rule-following action based upon empirically grounded laws (Grundy, 1987, 12)."

While the technical orientation is toward control, the practical interest is toward understanding (Grundy, 1987, 12). It is based on a realization that human activities are highly situated and steeped in the moral and ethical, and that decisions to act come through deliberation on alternatives. The production of knowledge through the making of meaning is the task associated with the historical-heurumeneutical sciences. These include the interpretive and historical agendas of sociology, anthropology and of cultural psychology. The action arises as a result of interaction. Habermas (1972) and Grundy (1987), define the interaction as not action upon the environment which has been objectified in some way, but action with the environment, which is regarded as a subject in the

¹ We look more closely at Cochran-Smith and Lytle's and Noffke's catagorizations later in this paper.
interaction. A practical orientation has "a fundamental interest in understanding the environment through interaction based upon a consensual interpretation of meaning (Grundy, p. 14)."

The emancipatory orientation arises from a critical perspective that seeks to uncover the societal structures that coerce and inhibit freedom. It leads to "independence from all that is outside of the individual and is a state of autonomy (Habermas 1972, 205ff, in Grundy, p. 16.)." Grundy claims that since human beings are steeped in tradition and taken-for-granted assumptions, they must generate critical theories "about persons and society which explain how coercion and distortion operate to inhibit freedom (p. 18)" to translate emancipatory interest into action. While the technical and practical orientations are concerned with control, the emancipatory orientations has "a fundamental interest in emancipation and empowerment to engage in autonomous action arising out of authentic, critical insights into the social construction of human society (Grundy, p. 19)."

The identification of these three interests have implications for action researchers. One is to help acknowledge that the studies emerge from social construction and the form and purposes of action research are determined by interests of particular persons and their worlds. A second is that it helps to understand why teachers and other practitioners ask different types of questions when they reflect on their practice or do action research (Van Manen, 1977). For example, from a technical orientation, teachers may ask the following: "Do the ends justify the means?" and "What means shall I use to get my students to talk or write about what they read?" The practical orientation can lead to, "What assumptions or predispositions underlie the teaching activity?" Are the goals worth achieving?" Finally, the emancipatory orientation promotes ends like self-determination, community and justice, thus the practitioner may ask, "Which educational goals, activities, and experiences contribute to humane, just, equitable, fulfilling life for the students?"

**Purposes of action research**

The purposes of action research include professional understanding, personal growth, and the political empowerment (Noffke, 1997). Professional purposes include staff development and adding to the knowledge base for teaching. The action leads to shared knowledge and to the improvement of the academic and social curriculum.

Personal purposes for engaging in action research include teachers becoming more familiar with research methods and the development of personal knowledge and theories. The action involves understanding self and others. As educators respond to their struggles, they place issues of personal meaning alongside issues of professional and social significance. For example, they capture their experiences and chronicle their personal growth, their changing attitudes, and the transformations they are going through in journals and oral histories.

Finally, action research can have political purposes, such as to critique the nature of teachers' work and workplaces and the advancement of social agendas. While doing inquiry into the interpretive, conceptual, political systems in classrooms and schools, educators become increasingly aware of their
own positionality, of socio-economic, racial, and gender inequalities, and of the interconnections between knowledge and power. As they identify compelling beliefs, purposes, and meanings that guide action, those working in political realm become increasingly capable of directing their social action toward desired goals and of generating a language of possibility, a vision for the future, and sense of interconnectedness with others. The latter is clearly seen in participatory action research with its focus on community activism.

Types of reflection

Our third dimension is the type of reflection that occurs in action research. Rearick identified three forms of reflection that we locate along this dimension: autobiographical, collaborative, and communal.

Autobiographical self-reflection involves the researcher as the main focus of the research. In autobiographical reflection the action researcher considers the action that takes place in the empirical world of objects, events, and states. Philosophical introspection presents itself as a way of perceiving the immediate reality. In autobiographical reflection the action researcher strives to examine literal meaning of his or her stories and probes into the metaphorical meanings as they relate to common usage. The aim of autobiographical reflection is to understand, then explain. The explanations are related to the desire to achieve greater clarity about the relationship between his or her character and action.

Autobiographical reflection is utilitarian. It is useful to turn inwards to find the meaning of one's practical experience. Rather than to simply look at our experiences in a superficial manner, the action researcher attempts to bring the outside-inside and the inside outside in an effort to find the public meaning in the particulars of their lived experience. The first move away from personal self-understanding to a more public form of self understanding is achieved through the philosophical act of acknowledging the inadequacies of a strictly autobiographical reflection.

The collaborative move is a response to the inadequacies of the autobiographical narrative. Collaborative reflection responds to the uncertainty by asking questions and seeking answers beyond oneself. The move is toward greater openness to understanding the perspectives of others and it moves the action researcher beyond subjective experience and particularity. Whereas, autobiographical reflection preserves the significance of particularity, collaborative reflection opens up the autobiographical account through questioning. Collaborative reflection involves reflecting on the social construction of self and the system within a particular context. In collaborative reflection the action researcher considers the interpretive world, the contents of thought, especially scientific and poetic thought and works of art.

Collaborative reflection occurs at a distance, thereby placing a wedge in the temporality. When the action researcher abstracts principles or propositions based on collaborative reflection on data, he or she seeks the whole meaning of the lived experience. The action researcher engaging in collaborative reflection actually finds him/herself caught in a web of intersubjective meanings, and, in an effort to
reduce confusion, he or she engages in analysis. Collaborative reflection is interpretive and deliberative. In collaborative reflection, the action researcher attempts to understand the basis for making choices and for making judgments. The meaning gets encoded in a case. The case has the character of being self-contained and coherent. The process of collaborative reflection results in a new kind of clarity, a new kind of legitimation, a new level of communication. Now communication involves problem-solving within a critical community.

Communal reflection involves reflecting on the self in interaction with others—experiencing and mediating cultural, historical, and institutional contexts. In addition, communal reflection is a meta-process: the nature of reflection itself, either autobiographical, collaborative, or communal, can be the focus of the reflective process. Communal reflection involves more political public dialogue about philosophical questions. The action researcher who engages in communal reflection engages in questions about such things as the meaning of democracy, freedom, and social justice. The movement is from literal, to metaphorical, to philosophical. Public meanings, which result from communal reflection, cannot be specified in advance, they are not determined by scientific evidence, but they are not entirely indeterminate. Public meanings are acquired through public dialogue and debate. Dialogue may serve instrumental purposes, as a way of dealing with other human beings, as or it may involve philosophical dialogue, which is public dialogue that is political, perhaps moral (Rorty, 1991).

Communal reflection helps the action researcher to better understand the perceptions, values, and deeper meanings that direct social action. To engage in communal reflection, the action researcher must be able to move from one disciplinary discourse to another in response to discourse of the other conversational partner. The movement in communal reflection tends toward freedom. Communal reflection has a moral and an affective dimension. The action researcher engaging in communal reflection sees the emptiness of his or her actions separate from public action. The action is toward understanding the past, the origins, traditions, and the values values that the community holds as ultimate. In public life, communal reflection may be subversive, undermining the moral authority of a political regime or it may serve to help people transcend the authority through understanding. The goal of communal reflection is self-knowledge within the context of political life.

Methods

Our purpose in this study was to create a framework with which to better understand the nature of action research. The methods that we used were interpretist, critical, and hermeneutic. The idea of the framework and its structure as three dimensions that define an “action research space” arose out of many hours of conversation of the type that Feldman has called “long and serious” (19XX). We began by reviewing the literature on action research in teacher education from international perspectives (Carr and Kemmis, 1986; Grundy, 1987; McKernan, 1988; McTaggert, 1993; Noffke, 1990; Noffke, 1997;
Whitehead, 1990). In doing so we traced the historical evolution of definitions, methods, and conceptions of action research in Australia, England, and the United States. From this we identified two dimensions along which action research has been categorized: theoretical orientation and purpose. To this we added a third dimension based on the work of one of us (Rearick).

We developed our framework by first reviewing the research on action research to identify existing classification schemes. We then analyzed several papers to determine what orientations were served (technical, practical, emancipatory), what purposes of action research were emphasized (personal, professional, or political), and what type of reflective process was used (autobiographical, collaborative, or communal). We began to construct our framework. We identified themes in the literature and defined terms. We selected two papers to analyze. The first paper (Nyhof-Young, 1997), which was by a graduate student, was a description of a science methods course in which she had her students engage in action research to reflect on gender issues in science. The second paper (Stevenson, 1991) was by an experienced researcher and teacher. In it he described his action research for experienced teachers in a masters-level program. Each selection was read and coded according to our framework by both authors. Between analyses of the papers, we examined the coding categories and the meanings of the labels on the framework, and revised it.

At first our graphical representation of the framework looked a bit like a Rubric's Cube (Figure 1). However, it soon became clear to us that it suggested a rigid compartmentalization that did not reflect the complexities of the action research world. As we coded the manuscript, we realized that the action research proceeded cyclically and the researcher occupied a space, rather than a cell or a collection of cells. This led us to a more open diagram that defined the space using three Cartesian coordinates (Figure 2). We located the studies along a continuum as a point on a graph. As we continued to apply the framework we saw that this representation did not adequately represent perspective and depth. Our diagram then evolved into an open box in which we could locate examples of action research (Figure 3).

As we continued to read and analyze action research papers, we continued to find the framework problematic. We realized that the labeling of the axes in a certain order suggested a normative hierarchy with some purposes, types of reflection, or theoretical orientations "better" than others, e.g., technical ---> practical ---> emancipatory. It was at this point that we devised what we now call the "star diagrams (Figure 4)." This form allows us to show the relationship among the different dimensions, to locate the primary foci of the examples of action research, and to be able to vary the order of orientations, purposes, and types of reflection to better reflect their relationship in each example.

We used our framework to look closely at four recently published books on action research. We selected these books because each represented a different conception of action research. Each book contains a section in which the author(s) articulated their conceptions of action research and
provided case studies in which it was operationalized. Susan Noffke and Robert Stevenson (1985) in *Educational Action Research: Becoming Practically Critical*, demonstrate how they and their students and colleagues inquire into basic issues related to democratic education and strive to improve the lives of children and the conditions of schooling. Marilyn Cochran-Smith and Susan Lytle (1993) in *Inside/Outside: Teacher Research and Knowledge*, describe the nature of teacher research, then, they identify a range of methods used to study practice, and, finally, they identify contexts that support such inquiry. Sandra Hollingsworth's (1995), *Teacher Research and Urban Literacy Education: Lessons and Conversations in a Feminist Key*, provides an example of how conversation was used to encourage a group of urban teachers to investigate their practice in light of feminist theory. Jean McNiff (1992), in *Action Research: Principles and Practice*, articulated a model of self-study, in which the researchers engage in cycles of action-reflection on their experience and development as historically-situated human beings, then identify contradictions between theory and practice to construct "living educational theories" (Whitehead, 1993). We now turn to the results of our analysis.

**Data analysis**

We have divided this section of the paper into four parts. In the first, we look at Noffke and Stevenson's approach to action research and two of the cases that they have included in their book; one by Lynn Brunner, who was a preservice teacher, and the other written by Allan Feldman when he has a graduate student.

We then turn to Cochran-Smith and Lytle. After analyzing their conceptions of teacher research, we look at one example of each type: a journal by Lynn Strieb, an elementary school teacher; a report on oral inquiry by Rhoda Kanevsky, also an elementary school teacher; a classroom study by Eileen Felgus, a kindergarten teacher; and an essay by Shirley Brown on her teaching of adults in a GED program.

Next, we analyzed Hollingsworth's conception. After examining her feminist theoretical framework and her method of conversational inquiry, we analyze Mary Dybahl's case. Finally, we examine a conversation among the teachers.

Finally, we report on our reading of McNiff, and the three case studies from her book. They are reports of action research written by Margaret Foy, a middle school teacher; Zita Gisbourne, a high school teacher; and Mike Parr, who teaches in a technical community college.

**Educational action research**

In this section of the paper, we examine Noffke and Stevenson's exposition of action research as it is discussed in *Educational Action Research: Becoming Practically Critical* using our heuristic of the action research space.

Noffke and Stevenson integrated the knowledge they gained through cross-cultural inquiry into a coherent framework for using action research as a catalyst for democratizing education. In their book they illustrate how emancipatory forms of action research can be used to democratize schooling,
improve teaching and learning, and enhance participants' self-understanding and capacity to act rightly and justly. In a series of case studies written by preservice teachers, teachers, administrators, teacher educators, and staff developers, we see examples of collaborative curriculum planning informed by social justice agendas. Working within the paradigm of critical praxis, Noffke, Stevenson, Zeichner, and the other contributors to *Educational Action Research: Becoming Practically Critical*, aspire to catalyze educators to become critical, to do action inquiry into the political nature of education and the meaning of educational endeavors within the context of educational and ideological life. They look critically at the way ideological and socio-economic factors impinge on human growth and development and seek to point out inequities related to race, gender, class, and other differences. Drawing on insights from Carr and Kemmis' work, *Becoming Critical: Education, Knowledge and Action Research* (19XX), Noffke and Stevenson seek to answer the following questions:

- What is action research?
- How does action research liberate participants in social situations to collectively inquire into experience, understand and improve practice, and facilitate the development of conditions where people learn to engage in nonrepressive, nondiscriminatory democratic deliberation and to act rightly and justly? Why?
- How is action research situated historically?
- How the action research method and cycle problematizes practice, taking everyday things in life and unpacking them for their historical and ideological significance, thereby clarifying a vision of social justice?
- How do educators come to understand the sources of knowledge that is legitimated and reproduced in schools?
- How can action research be used as a vehicle for understanding what students and teacher realize from their school experiences?
- What interests are being served in schools?

For Noffke and Stevenson, action research leads to self understanding, professional growth, and political change. Kemmis and McTaggert's (1988) definition of action research and their critical-emancipatory framework is used as the basis for the action research experience used by the Teacher Education Department at the University of Wisconsin-Madison program and by Noffke and Stevenson in their work at State University of New York and beyond.

Action research is a form of collective self reflective inquiry undertaken by participants in a social situation in order to improve rationality and justice of their own social practices, as well as their understanding of the practices and situation in which these practices are carried out. (p. 5).
Noffke and Stevenson work within the social reconstructionist tradition, which was first described in the work of John Dewey (1916). In *Democracy and Education*, Dewey defined education as:

that reconstruction or reorganization of experience which adds to the meaning of experience, which increases ability to direct the course of subsequent experience (p. 76).

They use Van Manen¹s (1977) work to discuss how action research can incorporate the critical dimension of social reconstruction. Since they have made a commitment to social justice and fidelity of persons, they are trying to help other educators to become aware of problematic situations and to work to alter aspects of the status quo that are unjust. They assume that educators can prevent further destruction of society by developing in citizens a sense of "ethical caring." Ethical caring involves showing concern for how our words and actions affect others and ourselves. Noffke, and Stevenson assume that education is a means to an end, and the end is enlightened action and a commitment for educational equity for "everybody's children" (p. 20). Therefore, they try to help their students become aware of the role that personal biographies, professional theories and practices, and moral and political interests have on life in schools and in society.

Where is Noffke and Stevenson's action research located in the action research space? Along the axis of theoretical orientation, they are taking an emancipatory stance. Practical concerns motivate them to want to select activities and goals that raise educator's consciousness about the origins, values, and traditions that inform their choices. However, Noffke and Stevenson, and their colleagues, Zeichner and Gore, feel that reflective practice involves not only reflection on experience of teaching as a craft, but also critical deliberation about the kinds of educational experiences prepare citizens for work and life in a democratic society. An emancipatory orientation to action research forces the authors and their students to develop new competencies--a focus on the learner as a whole person, a problem-posing and problem-solving orientation to practice and the practice situation, a capacity for relational thinking, and strategy for analyzing social problems and for healing social ills through education.

Noffke and Stevenson are strong supporters of the power of action research to encourage educators to achieve a variety of interrelated purposes: political, personal and professional. Action research can politically-motivate informed educators to direct their efforts at social reconstruction and democratic ends. In addition, collaboration with others can potentially lead to a deeper self-understanding because one's interpretation of the situation in a classroom and school are informed by others' interpretations. Finally, action research, which makes problematic educational policies, practices, and goals, brings educators together to discuss the issues that are relevant to contemporary society.

Collaborative reflection appears to be central to Noffke and Stevenson's version of action research. Teachers are encouraged to use the lenses of critical theory to reflect on their practice and to develop their educational theories. Although they place themselves in the social reconstructionist tradition, there is no question that they are informed about other traditions; moreover, there is no
question that they expect that their students will be able to place themselves in a tradition as they analyze the ways they reflect on their own orientations to teaching. The authors engage in autobiographical reflection. They critically reflect on their own autobiography and they identify problematic aspects of their own teaching. They explain the origins, values, and traditions that motivate them in their work, and they share with us the way they become aware of how tacit knowledge maintains the status quo and how reflective consciousness empowers them to continually improve the rationality and justice of their actions. In addition, Noffke and Stevenson do engage in communal reflection. A close reading of the text and a cursory review of the authors cited reveal that they read research in the human sciences: sociology, psychology, political science, and philosophy. Although the actual contributors to the book are all educators, they include multiple perspectives: that of the preservice teacher, administrator, teacher educator, and staff developer. Within each case study, the voices of multiple actors contribute multiple interpretations of the situation and problem.

What this suggests is that Noffke and Stevenson's version of action research fills up the action research space. Their model of action research, which develops political knowledge, has an emancipatory orientation, and is collaborative. Politics are informed by personal knowledge, practical concerns, and by reflection on their own autobiographical experiences. They produce professional knowledge is multi-dimensional and multi-vocal. Through a process of communal reflection they invite educators and others to reflect on the "best" education for American citizens.

The Death of Idealism? Or, issues of empowerment in the preservice setting.

At the time of her study, Lynn Brunner was a preservice teacher in the Teacher Education Program at the University of Wisconsin-Madison. Her action research focused on developing empowering practices in her own classroom.

Brunner intended for her research to be political and emancipatory, however the knowledge that she created was personal and the project itself had a practical orientation. Although she collaborated with others, she engaged primarily in autobiographical reflection. Lynn's motivation for doing the research was personal. She found it problematic that the contexts and practices in her field work placements did not empower students. She began by reviewing contemporary literature on empowerment, and she learned that when people feel empowered they are informed about how to make change; they have a sense of confidence in their own abilities, and they feel socially-supported and accepted. She identified some strategies for empowering students: contextualize knowledge, include multiple perspectives, treat knowledge as open-ended and constructed, and focus on active social involvement in the learning. Brunner¹s narrative has an autobiographical quality to it. She included in her review some reflection on discussions she had with her cooperating teacher and her supervisor, and she showed sensitivity to student feedback by adjusting her pedagogy to meet their expectations, and to that degree her reflection was collaborative. Nevertheless, the bulk of her reflection was on her own
perceptions and her own interpretations of events. In the end, she learned a great deal about the politics of schooling. She felt torn between her desire to empower her students and to maintain control of the group. She learned a bit about herself. Initially, she felt frustrated when students were in noncompliance with her efforts to empower them. She realized that she had been taught to listen to adults and to follow their directions. Her own family, with roots in the working class, made her want "children to be seen and not heard." Her personal reaction to having her authority threatened was to resort to an authoritarian teaching style to maintain control. Her anger toward her students disobedience and her own need to have the approval of her cooperating teacher led her to decide to get control of the class. Her observations of her students reactions to group work made her want to return to the concept of "banking education." Eventually, she began to understand that the curriculum in any classroom is socially-negotiated through practice there. She realized that the norms and expectations of the community and the history of contestation between her teacher and the principal influenced classroom life. At no time did she problematize the notion that the problem was imposed on the context, that it did not emanate from concerns of the students, but it emanated from an ideological concern that she brought to the situation. The Institutionalization of Action Research

Allan Feldman was the action research facilitator for the Scope, Sequence and Coordination (SS&C) ³100 Schools² project funded by the National Science foundation. The goal of the project was to reform the teaching of science on the secondary level in California. Action research was to be used as a formative tool for reviewing a science curriculum for content, developmental appropriateness and institutional. Feldman's orientation at the outset of the project was emancipatory. He was hired to facilitate a rational effort to reform the way science was taught in the 100 Schools project, and he hoped that action research would empower the teachers to practically inform theory. He thought that the collaboration between the researcher and teachers would enhance the professional knowledge-base in science education, but the teachers found that their concerns had to do with inadequate resources, inflexible institutional structures, conflicting and contradictory demands on time and energy. Though the curriculum was appealing, the teachers did not receive the resources to support the instruction. Though they were willing to meet and eager to collaborate, they were unable to arrange for classroom exchanges or common release times. Collective bargaining issues, overcrowding of classrooms, and the daily dailies of teaching in an urban setting placed demands on their time and energy. Although the project initially had a practical orientation, it ended up having an emancipatory orientation and the reflection was collaborative. The teachers got a better understanding of the fact that if they wanted to improve practice, then they had to improve the practice context.

The knowledge that the action researchers constructed was political and also personal. The teachers realized that their situation was oppressive. For example, Mr. Miller noted that he was "up to his eyeballs in courses and kids;² he did not have adequate resources for his students; and he was engaged in so many roles in the school that he simply did not have time to systematically keep up with a
research journal. Mr. Doyle was unable to attend crucial meetings or arrange curriculum exchanges. Moreover, his formal graduate study took time away from writing in his research journal. Ms. Young was active in meetings and in implementing the curriculum, but she was discouraged by the complexity of her urban situation. There were many interruptions; the students tended to be resistant to the curriculum reform, which violated their expectations; and as pay reductions and work intensification occurred the general moral in the school fell.

Feldman engaged in communal reflection in the piece. The text was multi-vocal. It acknowledge multiple perspectives— the teachers, the National Science Foundation, and his own. While believing that action research is a self-developmental, ethical process, Feldman was wary of the expectation that action research imposed on teachers could be used as a tool for institutional reform because the contradictions of control and the politics of scarcity that are a part and parcel of life in schools. This case fills the research space, not in any linear or predictable way, but in its systematic and spontaneous unveiling of complexity.

**Inside/Outside**

Marilyn Cochran-Smith and Susan Lytle have collaborated for many years in the support of teachers doing research, and in an analysis of teacher research. Their book, *Inside/Outside: Teacher research and knowledge* (1993), reports on their thinking about teacher research and provides examples of the different varieties that make up their typology of teacher research. We have taken a close look at Cochran-Smith and Lytle¹s writing and some of the examples that they provide of written reports of teacher research. Again, we want to make clear that our analysis is limited to what we have read, and therefore my misrepresent Cochran-Smith and Lytle¹s positions, as well as the actions and intentions of the teacher researchers.

*Inside/Outside* is divided into two parts: ³Concepts and Contexts of Teacher Research² and ³Teachers on Teaching, Learning and Schooling.² Cochran-Smith and Lytle use the five chapters that make up Part I to explore the relationship between teacher research and academic research; to present and explain their typology of teacher research; to place teacher research within the lives and careers of individual teachers; and to argue the importance of communities for teacher research. Part II consists of four chapters, each devoted to a type of teacher research (journals, oral inquiries, classroom and school studies, and essays), and each containing two or more examples of that type of research.

Cochran-Smith and Lytle define teacher researcher as ³systematic, intentional inquiry by teachers about their own school and classroom work (24).² They see as its purpose the professional development of teachers and a way to include teachers¹ knowledge and voices in the professional knowledge base for teaching (85). While it is clear from their writing that they find the improvement of practice an important outcome of teacher research, and while they claim that they are not trying to raise the professional status of teachers by calling them researchers, much of their argument in the first five
chapters centers around the legitimation of teacher research. They see this as being important for several reasons:

- First, the activity of teacher research changes teachers from the researched to the researcher. This acts against forces that can lead to the disenfranchisement and deskilling of teachers.
- Second, teacher research is a knowledge generation activity. It makes explicit the discrepancies between theory and practice, and it pays close attention to context and makes explicit teachers¹ negotiation within that context. In doing so, it makes ³problematic what teachers think they already know, what they see when they observe their own students as learners, and what they choose to do about the disjunctions that often exist in their classrooms, schools and communities (64).²
- Third, while traditional educational research can inform practice and shape policy, they claim that ³...only teachers themselves can integrate their assumptions and their interpretive frameworks and then decide on the actions that are appropriate for their local contexts (64).²
- Finally, Cochran-Smith and Lytle see teacher research as ³a radical challenge to assumptions about the relationships of theory and practice, school and university partnerships, and school structures and educational reform (23).²

From this we can see that Cochran-Smith and Lytle see the legitimation of teacher research as one aspect of the transformation of how teachers¹ work is viewed. That would then help to remove obstacles that act against teachers acting as professionals in their classrooms and schools.

While they have stressed knowledge generation as an outcome for teacher research and have argued for its legitimation, Cochran-Smith and Lytle do so from a practical orientation. They make explicit the moral and ethical factors that can only be addressed through deliberation, and they recognize the importance of collaborative reflection through conversation for doing so. In addition, at time they makereference to the social, economic, and political in education in an emancipatory fashion.

One of the most significant contributions that Cochran-Smith and Lytle have made to the field of action research is to expand the notion of what counts as teacher research. This has come out of their focus on the legitimation of teacher research and the recognition of already existing forms of teacher inquiry. They have done this through a review and analysis of the types of inquiry activities in which teachers have engaged. They divide these activities into two broad categories: empirical and conceptual. Among the empirical types of teacher research they include journals, oral inquiry processes, and classroom studies. They categorize teachers¹ essays as a form of conceptual inquiry.

In Part II of their book, they present multiple examples of each of these types of teacher research. We have closely examined the first example of each that they provide. We begin with Lynne Strieb¹s report on her journal keeping.

Visiting and Revisiting the Trees, Lynne Yermanock Strieb

Rather than a presentation of her journal, Strieb has used this opportunity to reflect on her journal keeping. She does this by looking closely at entries that she made in the 1980-81 academic year.
that relate to an extended unit on trees. Towards the beginning of the piece, she explains why, in 1991, she has continued to keep a journal. Strieb says that “it helps me with my teaching (122).” It allows her to pay attention to what she and the children value, and becomes “a place for planning, for raising questions, for figuring things out, and for thinking (122).” In addition, it provides her with a concrete way to satisfy her need to completion and closure of the teaching day, and helps her to remember what was done that day.

Strieb also keeps a journal so that she can “share it with others (123)” as part of discussions with other teachers, to make public what happens in her classroom, to provide data for historians and educational researchers, and to tell her own children about her work.

As she revisited her journal entries from 1980-81, she reflected on what she thought was important. She explained what she did and why she did it. She found that re-reading the journal allowed her to become aware of an overview of logic that she has only been tacitly cognizant of before.

While personal conversations with Strieb have suggested that she has a concern for her students that leans towards an emancipatory orientation and a political purpose, little of that is evident in the essay that she prepared for this volume. Rather, what comes across is a practical orientation, and professional and personal purposes. Again, through personal conversations, we are aware of a dissonance between the type of reflection that she has used and what appears in this piece. While she usually engages in a communal form of reflection, only the autobiographical is evident here. There is little reference to her experiences with the Philadelphia Teachers Learning Cooperative (TLC) or with Pat Carini and the Prospect School. Instead we hear only Strieb’s voice reflecting autobiographically.

Case 1: Descriptive Review of a Child: A Way of Knowing About Teaching and Learning, Rhoda Drucker Kanevsky

Like Strieb, Rhoda Kanevsky is an experienced elementary teacher in the Philadelphia Public Schools and has been an active participant in the Philadelphia Teachers Learning Cooperative. In this piece she describes a type of oral inquiry process used by the TLC teachers, gives an example from her own practice, and reflects on its nature as research.

One of the ways that the TLC teachers help each other with their practice is through a process called the descriptive review. In the descriptive review, a teacher “presents” a student to the other teachers along with a focusing question. The presentation is organized around five headings: “physical presence and gesture, disposition, relationships with children and adults, activities and interests, and formal learning (152).” To prepare for the descriptive review that she describes in this book, Kanevsky relied on her classroom observations to write down her recollections for each of the five headings and collected the student’s work. While she used the headings to prepare for the review, Kanevsky claims that the headings are not discrete categories, and that

During the presentation, information from one heading may lead into another heading. I can gather anecdotes together as I speak and connect the portrayal by circling back to earlier
statements. Through the portrayal, the child emerges as a unique person with integrity and wholeness, trying in her own way to create meaning in the world (152).

It can be seen from this that while the preparation for the descriptive review can rely on written materials, there is an assumption that the presentation will have the fluidity that one finds in conversations due to their collaborative nature (Feldman, 1997).

For this particular review, Kanevsky used this focusing question: “What recommendations can I make to Janean’s new teacher and to the school community about her academic growth?” In an earlier review of the same child, she had asked, “How can I support her learning and help her grow academically?” Focusing questions used by other teachers include, “How can I help the child to get along with other children?” “How can I help the child to become more independent?” “How can I help the child to get more involved in school life?” and “How can the child bridge the gap between school requirements and his own interests (152)?” It is important to note that while all of these questions are phrased as a problem to be solved, the teachers’ concerns lie in the moral and ethical domains.

The descriptive review process begins with the focusing question and the teacher’s presentation. It then shifts to questions asked by the other teachers. After there is consensus that all the participants have a complete enough image of the child and the situation, they then turn to recommendations. The teacher gathers those recommendations without comment.

Kanevsky claims that the descriptive review is a knowledge generating activity:

In the process of asking questions and making recommendations, teachers create knowledge about teaching and learning. New ideas and insights are generated about children and classrooms....The descriptive review is a way of knowing that starts with a description of a particular child and ends with insights and theories not only about the child being described but about children in general. Through each review, the participants create a rich body of knowledge and open up questions and possibilities for understanding and educating the children we teach (153).

In this way, Kanevsky ties oral inquiry processes to Cochran-Smith and Lytle’s argument that teacher research in a legitimate, knowledge generating activity.

The descriptive review process as described by Kanevsky appears to have as its purpose the generation of knowledge and understanding to improve practice: “each meeting...results in a shift in awareness, new knowledge, questions, and ideas about how to be responsive and reflective practitioners (151).” While this sounds like a fairly instrumental goal, the TLC teachers see this as a way to not only generate knowledge about how to teach but in addition as “a way to know a child and her values (161)” and to expand teachers’ vision as it becomes another way of looking (162). It does this through collaborative reflection that is guided by a technical orientation as seen in the specific steps of the descriptive review process. In addition, some communal reflection occurs when the teachers try to understand the child and her values. However, the focus on knowledge generation for the purpose of
improving particular classroom practice suggests that the participants have a practical orientation focusing on concern for the child's well-being, rather than an emancipatory orientation.

Case 2: Walking to the Words, Eileen Glickman Felgus

Eileen Felgus' piece is the first example of a classroom study found in chapter 8. In it she describes a study that she did of her practice of teaching literacy in a Philadelphia kindergarten. At the time of the publication of Cochran-Smith and Lytle's book, Felgus was also a doctoral candidate in the Graduate School of Education of the University of Pennsylvania, where she taught classes in children's literature.

Felgus' report of her classroom study has a structure that is similar to a research report written by a university researcher. Although the sections of her text do not use the traditional rubrics, it begins with an introduction, followed by a review of the literature, a description of her methods, an analysis of her data, and ends with a conclusion with implications.

This classroom study appears to focus entirely on the generation of knowledge and understanding. She stated that she wanted to know more about how children actually use environmental print in their own development of writers (171), and to answer the question, How had Bobby and Lauren, two 5-1/2 year-olds, become empowered to act on the print in their environment (171)? To do so, she needed to look more closely to understand more fully what was happening in the contexts--physical, pedagogical, temporal, and social--of my own classroom (173). She did this by enlisting the aid of the three other adults in her classroom: a student teacher, the classroom assistant, and a parent-scholar. Each kept a journal in which they noted the writing situations and the interactions of the children. Felgus interviewed some of the children at the end of the study to gain insights into their understanding of teacher demonstration writing and of their own ways of writing (173). She also collected the children's journals and field notes, and all classroom environmental print.

Felgus analyzed the data looking at the children's use of genre, language, and world knowledge. From this she found that several of her personal beliefs about teaching literacy to young children were strengthened. In addition, she told of one way in which the study had a direct effect on her practice. Because she found that the children preferred the genre of writing personal news, she wondered if she had somehow conveyed the misrepresentation that this was the preferred genre for journal writing (176). As a result, she changed the way that she talked with the children about journal writing.

In our own work, we have seen teachers engage in classroom studies to satisfy the need to know that their classroom practices are having the desired effect on their students' learning (Feldman, 1994). The result is a classroom study that serves to confirm, or dis-confirm, the teacher's beliefs about teaching and learning. It appears that Felgus has done just this. While her stated intention was to better understand the ways in which the children learn through their interactions with environmental print, it
appears that she was asking whether her preferred way of teaching literacy practices, which is through the use of environmental print, is effective in the ways that she wants it to be. This can be seen clearly in her final section, Looking Back, where she concludes, “Looking closely at six children’s use of print in their classroom environment has strengthened my conviction that emergent readers and writers need to be immersed in an environment rich in print (177).” Given what we have read here, it appears that Feldgus has a technical orientation toward her research, a personal purpose(satisfying her need to know), and has engaged in autobiographical reflection.

Case 3: Lighting Fires, Shirley P. Brown

Our final case from Inside/Outside is Shirley Brown’s essay on her teaching of English in a GED program within the School District of Philadelphia. While Cochran-Smith and Lytle place this piece of writing in the category essay, in style it is not so different from what Strieb and Kanevsky wrote. That is because their writings were in fact essays that they wrote about their journal keeping and involvement in oral inquiry activities. What makes this piece significantly different from the others that we have reviewed in Cochran-Smith and Lytle’s book, is that it is not an empirical study: Brown’s reflections about her teaching center on concepts and ideas that she found in a variety of sources, including texts, rather than on data gathered in her classroom setting.

Brown’s essay describes and analyzes her personal history of the changes in her practice. It began five years before the writing of the essay, when she found herself aware of a “lack of fire” in her classroom, and that “Seldom was there pressure or desire to continue a discussion past an allotted time (243).” Although she wanted to share her enthusiasm for what she loved in literature, she knew that the curriculum, one based on the traditional canon, was not related directly to the lives of her students. However, she kept with it because “at that time I didn’t question the classist, racist, gendered biases...” of the assumption that “there was a general norm that all people aspired to... (244).”

Questions began to form for her: “Didn’t an all-female class require an acknowledgment of some sort?” “Were there curriculum changes that might turn adequate lessons into interesting, engaging sessions?” She began to find answers when she attended a NEH summer seminar on the works of four Southern women writers in which she was introduced to women’s studies. At that point she began to introduce women writers into her curriculum. Since then she has participated in a women’s studies colloquium at a local community college and began to work with the Philadelphia Writing Project.

Through Brown’s reflection on the changes in her perspective towards the canon and the resulting changes in her practice, we become aware of her theoretical orientation, ways of reflecting, and her purposes. It is quite clear that she has taken an emancipatory stance that is centered in gender studies. She acknowledges “the hidden curriculum of male hegemony in literature (241)” and describes her research as being “focused on issues of gender, race and class... (245).” It is also clear that while this essay is the result of autobiographical reflection, the changes in her mind-set and to her practice
were the result of collaborative and communal reflection in the NEH seminar, the colloquium, and as part of the Philadelphia Writing Project.

Brown has had multiple purposes for engaging in the research that she describes in her essay. She is interested in improving her practice to help transform her students. She wants to affect the standard curriculum in literature to include the voices of women and minorities, and she sees both the professional and political aspects of that goal. She summarizes this towards the end of her essay:

I would contend that it is the teacher--the one who is closest to her class--who is in the best position to analyze the politics and the power structure of the classroom. Who is being empowered by the curriculum? Who is being disempowered? What is to be done? And who will do it? Teachers have the power to transform a disempowering curriculum through their own research, but it should be done in the everyday language of women (249).

Conversations in a feminist key

Teacher research and urban literacy education: lessons and conversations in a feminist key.

Although Hollingsworth credits Anthony Cody, Mary Dybdahl, Leslile Turner, Minarik, Lisa Raffel, Jennifer Davis-Smallwood, and Karen Manheim Teel as co-authors of the book Teacher research and urban literacy education: lessons and conversations in a feminist key, only her name appears on the cover of the book. All but one of the co-authors were former students, who continued to meet for conversations over dinners in the years after completing their program. During those conversations they talked about their experiences as teachers in urban schools.

The book is divided into three parts. Part I, which was written by Sandra Hollingsworth, is an introduction to the theoretical framework. In the first five chapters, Hollingsworth describes why she considers Sustained Conversation a feminist approach to teacher education. The idea of simply talking together about the concerns of practice as both a method of longitudinal research and a means of support in learning to teach was inspired by these teachers' criticisms of the support structures offered through traditional teacher education formats such as courses and supervision² (p. 4). Anyone who has studied feminism and who reviews the bibliography of the book would agree that Hollingsworth has read feminist theory and that she values feminist thinking and the concerns of women and children. She aims to help teachers gain a sense of themselves and their own authority by helping them analyze their experience and develop their own theories of society and of practice. Moreover, she believes that through continuous interaction and conversation, the teachers reconstruct knowledge and themselves.

In describing the method that was used in the study, Hollingsworth wrote that the conversations were neither dialogues nor discussions (p. 6), rather they were a collective "reformulation of ideas, intimate talk, and reconstructive questions". Working within a social constructivist theoretical framework (Vygotsky, 1978), these teachers and Hollingsworth engaged in extended conversations that enabled each participant to understand their "common stories" (p. 6). Later on in the book we learn that the
teachers considered themselves a community of teacher researchers and that they felt there was value in relating their stories, talking with peers, and discovering their tacit knowledge. Unlike the principled and objective findings from traditional approaches to learning, our reports showed less cognitive or behavioral change as they did personal and connective "settling" or tacit knowledge. The threads of what we were learning seemed to gently fall into place in the fabric of our lives (p. 26).

In the introduction, Hollinsworth noted that the conversations emphasized a holistic and collective orientation to world and work experiences, experience as knowledge, emotion as a means for learning about self and relationships, and considered the critical and contextual nature of the social use of knowledge (p. 6). It appears that the book resulted from collaborative reflection. In other words, as they reflected on the stories and conversations, and Hollingsworth explained how the conversations led to praxis. She indicated that in the evolving conversations, the teachers developed an understanding of (1) classroom relationships, (2) diversity of values, (3) increased critical awareness of power relationships inside the school (p. 30).

The group focused on practice-based concerns rather than disembodied theories or topics. Through conversations they discovered their biographical connections and differences and valued their lived experiences and emotions as knowledge. As they reflected on their experiences they found their stories to be full of theories of self/other relationships and concern for the care of children. According to Hollingsworth and the teachers, as they developed caring relationships with one another, they found themselves moving beyond the model of teaching that they were taught and they claimed allegiance to a social constructivist theory of learning (p. 57) and they began to validate the practical theories that they were constructing. These stories, which were described as theories of feminist epistemologies, were about the personal as political and the political as personal, and they validated the gendered nature of knowledge in education.

At the end of their first year of conversation, they validated their preference for relational knowing. Relational knowing "involves both the recall of prior knowledge and the reflection on what knowledge is perceived or present in social and political settings." (p. 77-78). Interspersed with the interpretations were quotations from published authors and excerpts from discussions.

All of this suggests that Hollingsworth's intention is emancipatory. Her orientation, however is practical. She is trying to develop a means by which she can help teachers evaluate their own situation and validate their own ways of knowing and practical theories. Those researchers working from a practical orientation show an interest in understanding the environment through interaction based on consensus. The following cases illustrates how Hollingsworth helps the teachers develop community and arrive at consensus.

Case 1: Mary's research: The power of friendship groups for urban students.
Part II begins with Mary's case. Mary begins with a five-line quotation relating to how she likes to structure a lesson so that the students can do the thinking and talking. They examined teaching and learning practices and questioned the process of acting as literacy instructors. (p. 85). Before discussing Mary's case, Hollinsworth provides a justification for teacher research:

The work thus exemplifies not only learning to teach, but the international movement toward "teacher research" across all of its three interrelated stances or standpoints: curriculum improvement, professional critique, and epistemological/societal reforms. A derivative of action research, teacher research from a curriculum improvement stance seek to improve practice in social settings by trying out curricular ideas as both a means of increasing knowledge of the situation and improving it. (p. 85).

Hollingsworth reviewed research that was relevant to Mary's case. She observed Mary's teaching, recording excerpts from conversation between Mary and her students and among the students. In one excerpt Hollingsworth included an excerpt from her field notes that related to an observation of Mary's teaching. It was a brief summary of procedures, tasks, and bits of conversation, but it was not a discussion of content. Mary was conducting a round robin reading routine. They analyzed the data together and identified strategies fit with Mary's intended goal, which was to get the children more involved in discussions. In the follow-up paragraph, Hollingsworth wrote, "I shared my observations with Mary. On the basis of their reflection on the data, Mary decided to drop the round robin reading but to keep the partnered response format" (p. 94). Hollingsworth concluded that Mary's case illustrated how "buoyed by trust in themselves they [the teachers] gathered confidence to take new risks" (p. 86).

Clearly, this case is difficult to place in the action research space. Hollingsworth's voice dominates the discussion and the reflection. It appears that Mary's case is a vehicle that Hollinsworth used to provide an example of how she works with the teachers. The brief excerpts of Mary's own conversation suggest that she has a technical orientation. "I want to know what [my students] think [as they read]. I have to figure out how I can find that out--or a discussion." The knowledge she create is personal and it is procedural. "I watched and wrote down [partner] conversations...I noticed variations in the process...... There are undoubtedly patterns in each of these groups." She makes some generalizations based on her experience, but not all of them are related to her study:

"I notice each year that I have a pair of Filipino boys form a strong group. It is also noteworthy that girls change partners more frequently than boys do. High readers don't necessarily make good partners to low readers, but they do seem to make good tutors. But that is not the point of my study (98).

Mary engages in autobiographical reflection about some observations she made in her classroom. Mary's purpose in doing the research is personal and professional. She wants to do a better job. There is little to suggest that Mary's purpose in doing the research is political. Although she did
notice ethnic and gender patterns, she did not see the connection of ethnicity and gender to her research question so she continued focusing on her own questions and responses. "While it is important to understand why students think and act the way they do, what matters is how I respond to what their thoughts and actions tell me" (100).

Mary shared the results of her research. Leslie, another teacher researcher, discussed the importance of the researcher "owning" the problem or question and grounding the research in observation, experimenting with new techniques, and drawing conclusions. These bits of data suggest that the teachers did engage in collaborative reflection, however, there was little evidence of collaborative reflection in the text itself.

Case Study 2: A Conversation on Teacher Research: Reflections on Our Work in Part II

Chapter Ten features excerpts from the teachers¹ conversations about teacher research. The chapter was organized around the following ideas: that teachers research shows promise, an argument in favor of teacher research as research, a discussion of a feminist rationale for conversation as research, and recommendations for revising teacher education programs. The teachers discussed their experiences at conferences.

Mary: What was wonderful about our teacher research conference was the audience: They were colleagues--other teachers from our schools.
Karen: In the district? Other Schools in the district?
Mary: Yes. And some prinicpals. But what was really nice was the feedback that we got. It was not just--you know, ³Oh, I liked your paper,² but the fact they came and they were really supportive. I got a positive feeling...wow! Maybe, there's something to this movement that will help us learn to appreciate each other!
Karen: Do you think they were sincere?
Mary: Absolutely. Absolutely.

Hollingsworth reflects on their conversation and notes that participating in the conversations and presenting their research in a public forum gave the teachers a chance to work through instructional dilemmas from their classrooms and to create new possibilities for urban literacy instruction.

The teachers reflected on their opinions of teacher educators, scholarly research, and educational discourse. As is the case in similar groups, the teachers read scholarly research and created a shared knowledge-base. Their conversation in chapter ten revealed that the group was not totally cohesive about the description of their work as feminist. At least some of the members of the group did not fully understand the feminist framework and others were thinking about generating another theoretical framework:
Anthony: I think we need to develop a theoretical rationale for what we are doing. I think Sam has an argument, an intellectual rationale. That's what I want to discuss more. And I think you have your experience, an argument that you could carry into a meeting.  
Karen: Well, we have. Sam talked about it at Stanford.  
Leslie: Sam takes that argument into the meeting every time.  
Karen: Every time.  
Leslie: Anything she does.  
Jennifer: Every time she practices.  
Anthony: Well...  
Leslie: A feminist epistemology. Yeah.  
Karen: Do you know what it means? I'm still not sure.  
Anthony: Alternative ideas on how we know what we know based on research on women.  
Mary: Yeah, it is a way of knowing, and I think a way of knowing that is not valued in our culture, in the dominant culture.  
Anthony: In the dominant paradigm.  
Mary: The kinds of things we have been talking about, just different ways of--  
Anthony: Well, my problem is, the cross that I bear, so to speak, is not only that--  
Mary: You were born male!  
Anthony: No, not only my pesky Y chromosome, but, but also, my training as a scientist... a science teacher. I tend to take that approach which, which really, looks at the validity of everything, and tries to compare it not only through my experience, but also to what objective measuring sticks are being used to explain it, other than the person's personal experience (189).  
Hollingsworth did not participate in the conversation, but afterwards she commented on it. Anthony didn't convince them. Conversely, the women teachers didn't convince Anthony to abandon his preference for the scientific objectivity--not could they convince others with similar backgrounds. The point that Leslie and the others made very well, however, was that objective measuring stick' don't always validate everyone's points of view. For many women, make and female teacher without education in the scientific form of objectivity, and people of color, other measuring sticks are called for.(190).  
As the conversation continued, the teachers focused on their common concern for children, and they extended their care to include all human beings. The teachers conversation suggests that teacher research promotes caring for children and for teachers, too. Later they reflected on their relationship with teacher educators. They hypothesized that there would be a revolution in which teachers would do
the research on teaching. Hollingsworth seemed to have agreed with them. In discussing their comments, she noted:

The teachers in this book would add that... university research on teacher research is also self-serving if it doesn¹t include and use the language of, teachers in classrooms, who are in the center of the struggle. If it doesn¹t value and validate research as these teachers are doing toward equity in urban education (p. 192).

Next the teachers discussed an international conference on teacher research that they¹d attended:

Leslie: You know, I am so discouraged. I think that there¹s got to be some like, revolution
Jennifer: Sure there¹s got to be a revolution
Anthony: Revolution and not a tea party.
Leslie: And maybe a revolution is happening... More people actually listen to me and you and you, because you¹re a teacher.
Anthony: Who are these people?
Leslie: People in universities doing research at university level talk to teachers now.
Mary: ³You are the expert, I¹ll listen to you.²
Jennifer: Right.

Then the teachers explained how they taught the university professors some lessons about teaching. They concluded that teachers and teacher educators should be educated differently. This section of the book provided an example of collaborative reflection. The teachers discussed a topic in some depth. The purposes were personal and professional. They wanted to validate their own knowledge and perspectives. The orientation was practical in that they were trying to establish their status and understand their situation. Although the teachers cooperated in creating the conversations, there were no examples where the teachers engaged in collaborative reflections on their conversations.

Part III ended with Hollinsworth¹s reflection on her evolution as a teacher educator. She described the personal events in her own life and the intellectual traditions that led to her feminist framework. Then she discussed how her work with teachers and with colleagues also informed her approach to teacher education. The book ended as it began: with an articulation of Hollingsworth¹s feminist theory for teacher education.

Teacher Research and Urban Literacy Education: Lessons & Conversations in a Feminist Key is an example of autobiographical reflection that was informed by the conversations with the teachers. Essentially, Hollingsworth reflected on her experience with the teacher researchers and wrote about it. Hollingsworth¹s personal orientation may have been emancipatory, but the orientation in the book itself was practical. By doing the research, Hollingsworth became more conscious of her own socialization as a teacher educator, of her own professional practice. Her purpose in writing the book was essentially political. She wanted to incorporate feminist theory into her teacher education program. The teachers¹
orientations were technical and practical. The purpose of their research was professional—to improve practice and the status of teaching.

**Principles and practice**

Jean McNiff is an educational consultant in Britain. She had worked for a number of years in schools, and had been a deputy head (assistant principal) of a large secondary school. She completed her Ph.D. in personal and social education from an action research perspective. She did this at the University of Bath where she worked with Jack Whitehead. In this section of our paper, we examine McNiff's exposition of action research in her book, *Action research: Principles and practice* (1991) using our heuristic of the action research space. We then do the same with three cases of practitioner action research, which she has included in the volume.

McNiff's book is divided into three parts: Background and Explanations; Practice; and Implications. Information from all three parts inform our analysis of her version of action research. The three cases are found in section two.

McNiff defines action research in the first chapter of her book. She does this in a variety of ways. One is by referring to how others have defined it. In particular, she supplies us with one from Stephen Kemmis and Wifred Carr:

> Action research is a form of self-reflective enquiry undertaken by participants (teachers, students or principals, for example) in social (including educational) situations in order to improve the rationality and justice of (a) their own social or educational practices, (b) their understanding of these practices, and (c) the situations (and institutions) in which these practices are carried out (Carr & Kemmis, 1986, p. XX).

This definition highlights who does action research, in what types of situations, and for what purposes. They are practitioners, doing research within their practice situations to either provide better reasons (in a normative sense) for their actions, or to improve their understandings of their actions and the situations in which they act.

Carr and Kemmis focus on the educational aspects of action research are reflected in McNiff's own concepts. For example, she claims that action research encourages a teacher to be reflective of his own practice in order to enhance the quality of education for himself and his students (1991, 1). Action research is educational for teachers because it encourages them to make sense of the reality of immediate solutions and enables teachers to account for their own educational development (1991, 11). She sees it as an approach to education that encourages teachers to be aware of what their practice, to be critical of it, and to be prepared to change it (p. 4). Teachers gain this awareness by changing their practice, collecting evidence to show how it was improved, and by then being able to describe the intervening action. McNiff adds that it is this ability to explain the
process and present evidence to back up claims that is inherent in the notion of teachers¹ educational
development (1991, 11).²

It becomes apparent later in her book that McNiff ties the educational development of teachers
to the improvement of their practice. This occurs through an action research scheme developed by Jack
Whitehead:

1. The statement of problems
2. The imagination of a solution
3. The implementation of a solution
4. The evaluation of the solution
5. The modification of practice in the light of the evaluation (58-59)

While this scheme can lead to the examination of practice in light of societal and political issues, either
hidden or overt, McNiff suggests a more technical approach by casting action research as problem
solving -- ³a search for right questions ... as well as answers² that is used ³by good teachers to improve
their practice (5).²She goes on to suggest that attention be paid to problems and questions such as

How can I improve the process of education here?
Why is my present practice unsatisfactory?
How can I develop my own personal and professional expertise to deal with the problem and
give reasonable justification for my actions (13)?

It is through the application of Whitehead¹s scheme to McNiff¹s questions that she sees action research
leading to teachers learning about their practice, to improve it, and to generate their own educational
theories from their practice (36-37).

Where then is McNiff¹s version of action research located in the action research space? Along
the axis of theoretical orientation, it appears that while she alludes to practical reasoning (51), the effects
of action research on people¹s lives and the systems in which they live (3), and that it becomes political
because it affects people¹s lives (9), her orientation is technical. This is partly due to her use of an
algorithm to describe the action research process. Even though her algorithm is a spiral rather than
linear, she describes it as a way to solve problems and practice by following a series of steps that is
similar to the traditional ³scientific method.²

McNiff is a strong supporter of action research and encourages teachers to engage in its
practice. This can be seen in the wide variety of purposes and outcomes that she attributes to action
research. These include staff development, improving the status of teaching as a profession, and the
geneneration of knowledge. By following Whitehead¹s lead, she also claims that action research
encourages teachers to develop ³living educational theories² that are based in their own practice. Finally,
she claims that action research can act against the deskilling of teachers by changing the power
relationship between teachers and professors.
Autobiographical reflection appears to be the centerpiece of McNiff’s version of action research. Teachers are encouraged to reflect on their practice and to develop their own educational theories. She pays little attention to teachers working together collaboratively, or in relation to their communities. While she does recognize the importance of dialogue for action research, she does not make clear what purpose it serves other than to demonstrate findings.

What this suggests is that McNiff’s version of action research can be described as a line in the action research space -- a line that sweeps through a variety of purposes as it retains the technical orientation and autobiographical reflection.

In part II of her book, McNiff provides readers with an introduction to the methods of action research in two chapters: ‘How to start an action research study’ and ‘Making sense of data.’ She follows this with three case studies done by teachers who were involved in a course entitled, ‘Supporting teachers in their classroom research.’ The course was directed by Jack Whitehead and Maureen Barrett of the University of Bath. The three cases included in McNiff’s book were written by Margaret Foy, Zita Gisbourne, and Mike Parr. We look at them in turn. We do want to remind readers of this paper that our analyses is based on the written case studies in McNiff’s book, and are not meant to be an evaluation of the work done by these teachers.

Case 1: Values into practice

At the time of this study, Margaret Foy was a middle school teacher in Somerset. Her action research focused on her practice as an English teacher. The starting point for here study was the dissonance between her educational values and her teaching methods. Briefly, her values were highly student-centered while her instructional methods tended to be didactic. She chose to try to teach by her values by experimenting with her methods. She did this in three stages. In the first, she gave the students a set of instructions for a long term (5-week) assignment, had them form groups, and then provided little instruction or guidance until the assignment was completed. In the second experiment Foy again provided the students with instructions, had them to a mixture of group and individual work, and acted as a facilitator and mentor to their learning. In the third experiment she returned to her didactic style.

It appears that during the 14 weeks that she experimented with her instruction, Foy collected data through observation, tape recordings of the students’ conversations, and through debriefing conversations at the end of the third experiment. Foy’s written case ends with a section labeled ‘Summary.’ In it she gives a brief overview of her findings, that both she and her students liked the second set of methods best, but devotes most of her writing to reflection of how she felt about the whole process and why it was important to her.

From the written case, Foy appears to have a theoretical orientation that lies between technical and practical. She describes her study as a series of action research cycles and refers to the guidelines that she followed. However, it is also evident that while her language suggested a technical bent, her
actions appeared to be simply a trying out of ideas to see what happens, tied to a moral and ethical stance towards her students.

There is little evidence in the case that Foy is interested in professional or political purposes. She is concerned about her own practice, how it relates to her personal educational theories, and the knowledge that she has about her teaching.

Finally, it looks as if her form of reflection was a combination of autobiographical and collaborative. She looked at the relationship between her work and her students by paying attention to the situation and the interactions among her students and with her. There is no evidence in the case report that she engaged in collaborative reflection with others. Therefore, Foy’s study would be located as a point in action research space that is between a technical and practical orientation, is centered on a personal purpose, and lies between autobiographical and collaborative reflection.

Case 2: Evaluating my teaching in dress and textile

Zita Gisbourne was head of the Dress and Textiles department of a secondary school in Gloucestershire. After having some difficulty in identifying her educational values and identifying a focus for her research, she settled on three areas of concern:

1. negotiation between pupils, parents, and teachers
2. pupils’ responsibilities for their own practical/creative work; and
3. [to] provide a short, basic course on textiles which would encourage pupils to work in groups, while applying the knowledge gained to their individual projects, in order to develop skills other than ‘craft’ skills (101).

Gisbourne decided to act in three ways: first to hold a meeting with parents, second to provide students with the opportunity to choose their groups and projects, and third, to select appropriate curriculum materials. She decided to collect a variety of data including audio- and videotapes of her classes, class observations by a colleague, student journals and questionnaire, and her own journal.

Unfortunately all did not happen as she planned. Only one student’s parents came to the meeting. She was unable to obtain the equipment she needed to make the audio and videotapes, and the students appeared to be resistant to her attempts to take more responsibility for their learning and to add more content knowledge to the course.

Gisbourne’s paper ends with a set of reflections on parents and pupils. She was quite dismayed by parents’ lack of interest in her course which led her to a feeling of inadequacy. She found that the students were involved in their work and had begun to learn the specific vocabulary of the course. However she found that they tended to continue to think of sewing rather than knowledge of textiles as the most important aspect of the course. Gisbourne also reported on a conversation that she had with six of the students. The student comments appear to consist primarily of complaints about the way in
which Gisbourne provided instruction, which she put off as the students¹ unwillingness to take responsibility for making their own decisions.

Again, we need to make clear that our analysis is based on the written record provided to us in McNiff¹s book. From it, it appears as if Gisbourne had articulated but not embraced a significant problematic aspect of her practice: the marginalization of her subject. She wrote about the lack of interest in ³sewing² by male students, the reluctance of parents to meet with her, and her pupils interest in the œcraft¹ of sewing rather than knowledge of textiles. As a result, her study, which could have had political and professional outcomes, was centered on the personal. This would appear to be due to the technical orientation of her study and the lack of collaborative or communal reflection. We therefore locate Gisbourne¹s study as a point in action research space that is located by a technical orientation, personal purpose, and autobiographical reflection.

Case 3: How can I evaluate my teaching in Engineering Technology?

Mike Parr teaches electronics in a technical community college in Bath. In his action research study he responded to his students¹ passivity and his own desire to make his class more student-active. In the spring of 1985 he gave his students a survey on their attitudes. Eight of 18 students completed it. From it he learned that students found the teaching at the Tech school better than at high school, and that they did not enjoy long lectures. In the following year, Parr intended to introduce more active learning in his classroom. However he found himself only teaching in practical and work settings. Just when it appeared that he would not be able to continue his investigation, a graduate student from Bath offered to collaborate with him on a study that looked at the students in both classroom and practical settings. The graduate student videotaped students, and observed and interviewed them. In addition a survey was given to them in their classroom setting.

While Parr was not able to introduce new techniques into classroom teaching, he did use the action research as an opportunity to reflect on his educational values and how they are enacted in the technical college. His list of educational values, which he compiled in June, 1985, stresses issues of equity between instructor and students, students¹ responsibility for their own learning, and his feeling that traditional, didactic instruction is a form of oppression. This strong democratic bent to his values statement suggests an orientation somewhere between practical and emancipatory. He sees the purpose of his study to be the improvement of his practice to help students get more in control of their learning. Finally, while Parr appears to be engaged primarily in autobiographical reflection, his case is the only one in which there is any mention of collaboration with others in the study. In addition to the graduate student, Parr alludes to the usefulness of meetings with other students in the action research course. This locates Parr¹s study as an orientation between practical and emancipatory, a personal but somewhat political purpose, and reflection that is primarily autobiographical but maybe collaborative.
Conclusion

We began this paper by asking the question, "What is action research?" Our review of the literature led us to the idea of developing a framework -- the idea of an action research space -- through which we could survey the field.

The review made clear to us that there was not use in seeking a single definition of action research, and that a single category along which to sort out types of action research would not be complete enough to cover the field. As we struggled with the groupings developed by others, we realized that three dimensions could serve to map a space through which we and others could move to understand the nature of action research from different orientations, purposes, and ways to reflect.

Some would say that we have not answered our question. However, while we do not have a succinct definition of action research, we have developed a tool that has helped us to gain a better understanding of how it is practiced. We feel confident when we can state that action research is an activity that when engaged in locates the action researcher somewhere in the action research space. Once located, it can then be said, at this time, in this situation, this is action research.

We end this paper by suggesting some ways that we think our framework can be useful. First, it can be used as we have to examine others' practice of action research. This has led us to several findings. One is that while similar language was used by all the teacher educators, it appears that they mean significantly different things by them. For example, we have seen that Noffke and Stevenson have approached action research from an emancipatory theoretical orientation, while McNiff, who uses Carr and Kemmis' emancipatory definition of action research, has a technical orientation.

A second is that there is not necessarily a tight connection between what is espoused in the theories and what was done by the practitioners. Noffke and Stevenson their theoretical framework, and we see their influence in the student's choice of topics and in their own work. Yet there are cases in the book that work within the emancipatory framework, but that are not necessarily related to their framework. Cochran-Smith and Lytle articulate their framework, and the teacher researchers in their book articulate theirs. Hollingsworth suggests that her group of teacher researchers constructed a feminist framework, but the conversations among teachers suggest that the framework was not necessarily understood or shared by all participants.

It should be clear that just as the framework allowed us to understand the action research practice of the authors of others, it can also be used for self-analysis. For example, once a practitioner locates herself in the space, she can say, "This is where I am" and see where it is that she would like to be in the action research space. This could be of benefit both to experienced researchers and those learning to do action research as they struggle to meet their personal, professional, and political purposes. In this way, our framework can become a tool for the self-reflective analysis of one's own practice of action research.
This framework may also be useful to those who teach or facilitate action research. As we have seen in our analysis, the way that action research is practiced is not always located in the space near to facilitator's theoretical conception of action research. This dissonance between the location of the action research practice and the theoretical description can be used as a way to figure out ways to modify the facilitation or teaching of action research to reduce that gap.

We also imagine that it could be used as a heuristic for identifying what variety of action research would best suit a particular situation. While we would not like to see it used prescriptively, it could help to locate a starting point.

Finally, what we have done so far is to focus on one of at least two orders of analysis that is possible with this framework. One is to place examples of action research or their theoretical descriptions in the action research space. The other order of analysis would be to compare the locations in the space between the theoretical descriptions given by the educational researchers (Noffke, Hollingsworth, etc.) with the locations of the action research reports that they give as examples. This has implications for teacher education. For example, it may be that for teachers to be able to do action research within these different "schools" they need to have access to different types of knowledge. They would need to not only know the techniques of action research, they also have to be familiar with the knowledge base that grounds that school of action research.

In conclusion, we are aware that many different frameworks could be developed using a variety of dimensions to map out an action research space, and that we have chosen to use the ones that have worked best for us. We hope that this is the beginning of a conversation that will add other perspectives and voices to our own. As a way to begin that conversation, we end with these questions:

- Is the framework usable? Are the rubrics that we provide for locating action research along the three dimensions adequate? How can they be improved?
- Does the framework do what we claim that it does? Does it provide a means for comparing and evaluating action research across the different models? Does its use lead to a better understanding of individual action researchers and of action research in general? How can the framework be modified to better meet these ends?
- How can this tool be used in teacher education?
- Can this framework be expanded to include action research in settings other than schools? Where do participatory action research, action science, and collaborative inquiry lie in the space?

References