

Learning in the Afternoon: When Teacher Inquiry Meets School Reform

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It is 3:15 on a chilly Monday afternoon in March. The corridors of DuBois High School are silent, interrupted only by the occasional banging of the custodial staff as they deal with the remnants of the day. In dimly lit Room 110, thirty-six teachers have moved from small journal groups of four or five to form a large circle, ready to discuss an essay written by an English teacher from another school. In the piece of teacher research about to be discussed, the writer details how her own intellectual journey in feminist scholarship and pedagogy transforms the male hegemony of her curriculum and classroom over time.

The conversation begins with questions about the writer's use of Ursula LeGuin's distinction between the father tongue—what she calls the language of power, of expository and scientific discourse—and the mother tongue, the language LeGuin calls another dialect, the language of stories, the language spoken by all children and most women. As a preface to her essay, the teacher has pointed out that the dialect of the mother tongue honors the personal and the subjective—and then goes on to state her own intention to analyze and interpret her life as a teacher using only the mother tongue.

"Can men write in the mother-tongue?"

"There are lots of I's in here—is this research?"

"Is it OK in research to say but I was baffled?"

Teachers' questions come quickly and passionately. The essay seems to have hit a nerve. One female chemistry teacher disassociates herself from the mother tongue:

"Isn't this essentialized? Hey, women can write in father tongue. I write ke that."

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"Men can write in a personal way."

"Some people write in the third person, which makes it appear objective when it really isn't."

As it proceeds, the conversation coalesces around the writer's initial observation that five years ago, before she began exploring the implications of women's studies for her day-to-day practice, she was "keenly aware of a lack of fire in my classroom." Later in the essay, as she described her efforts to construct a more inclusive curriculum and a more culturally responsive pedagogy, the teacher claims, "I could feel the fire in the room."

"What's her evidence?" some teachers want to know.

"What made her know? What caused that feeling?" others ask.

"What exactly did she do?" another asks.

And eventually questions become:

"What counts as evidence here?"

"What does the researcher need to show the reader?"

"Who's the audience of this piece? Teachers?"

Drawing examples from their own experiences, raising questions about the theory behind the practice and the practice behind the theory, the noisy debate continues as teachers formulate their positions, wonder aloud, refer back to the text, conduct sidebar conversations with neighbors as they stake out their arguments.

At 5:33 a member of the custodial staff sticks his head in the door. He tries several times without success to be heard above the din of heated discussion.

"It's time to close up now. Can you get out of the building, please? I have to close the building now."

At 5:45 the last teachers finish cleaning up and walk down the empty hall-way, leaving the classroom as they found it.

SEMINAR IN TEACHING AND LEARNING

Conversations among teachers such as the one depicted in this vignette are not uncommon in the Seminar in Teaching and Learning, a researching community of about 35 teachers from comprehensive high schools in the school district. Participants in this particular session had recently attended the Ethnography and Education Forum, a local conference where teacher researchers from across the country shared findings from their classroom and school-based studies. The research under discussion (Brown, 1993) was being presented by a teacher who works at a secondary school in the district designed especially for pregnant and parenting teenagers. Several teachers in the Seminar had heard her at the conference and were anxious to read and discuss her paper with their colleagues.

At once speculative and certain, provocative and patient, freewheeling and yet focused this kind of talk reflects teachers' individual and collective struggles to engage in a process of inquiry that supports their efforts to restructure their own classroom practices and their schools as workplaces. As they raised questions about Brown's purposes, they implicitly compared and examined their own. As they followed the evolution of her gender and literacy curriculum, they interrogated their own choices of materials and their design of particular activities to engage learners more actively in their subjects. And as they searched for and critiqued the evidence presented to warrant her claims, they prepared to collect and analyze data from their own classes in the months to come.

The talk of these Seminar participants is a form of oral inquiry into classroom and school experiences, a researching process that has enabled teachers
from diverse ethnic and racial backgrounds, subjects, and schools to open up
difficult topics, often deeply buried in the culture of isolation traditionally operating within their schools. As a form of inquiry, the talk has stemmed from or
generated questions that reflect teachers' desires to make sense of their experiences, to adopt a learning stance of openness toward classroom and school life.
Through these conversations and reading, writing, and talking together, they
have formed a researching community to engage in collaborative analyses and
interpretations of their work. And in doing so, they have not only enhanced student learning by improving their practice as professionals, but also generated
knowledge about the daily work lives of teachers and students that may inform
the efforts of others similarly committed to the transformation of schools.

Conceptual Frameworks

The impetus to form and sustain such a researching community has evolved from several interrelated strands of work, some programmatic and some conceptual. The establishment of the Philadelphia Writing Project (PhilWP) in 1986, an urban site of the National Writing Project, created a context in the city for K-12 teachers to explore teaching and learning through close study of writing and literacy across the grades and across the curriculum. The teacher leaders of the Seminar are also PhilWP teacher consultants who have participated in a wide range of project-related activities linking professional development, collegial inquiry, and school reform. Conversations between the leadership of the Philadelphia Schools Collaborative (PSC) and PhilWP leadership and secondary teacher consultants led to the envisionment of an ongoing seminar for teachers from three of the comprehensive high schools initially identified as intensive sites of the Collaborative's work.

We based the concept and design of the Seminar on a set of assumptions or beliefs about teaching, inquiry, and reform that we have continued to explore and refine over the past several years:

- Teaching is primarily a deliberative, rather than a technical, activity and a critical form of inquiry. Together teachers and students co-construct knowledge and the curriculum (Zumwalt, 1982).
- Learning is a meaning-centered, social, language-based and human/personal
 process that occurs within classroom communities. These communities are
 constructed within multiple layers of context that structure ongoing activity
 (Lytle & Botel, 1988).
- Teacher research is systematic and intentional inquiry about teaching, learning, and schooling carried out by teachers in their own school and classroom settings. Research by teachers alters, not just adds to, the local and public knowledge base on teaching (Cochran-Smith & Lytle, 1993; Lytle & Cochran-Smith, 1992).
- Classrooms and schools are sites of research and sources of knowledge for school-based practitioners (Goswami & Stillman, 1987).
- Inquiry into practice is a way of learning from the processes of teaching across the professional lifespan. Teacher inquiries inform and stimulate inquiries by learners (Branscombe, Goswami, & Schwartz, 1992; Cochran-Smith & Lytle, 1993).
- Urban teachers need opportunities to explore critical issues related to race, class, and gender that inform their stance as professionals, their pedagogy, and their relationships to parents and communities (Cochran-Smith & Lytle, 1992b).
- Teacher inquiry communities foster collegial learning and professional development; they also provide strategic sites for knowledge generation for the field (Cochran-Smith & Lytle, 1992a). They provide rich sources of knowledge about the relationships among teacher inquiry, professional knowledge and practice, and school reform.²
- Change efforts should focus primarily on the complex interrelationships of teachers, students, and curricula at the microlevel of classrooms and schools rather than at the macrolevel of districts, states, and federal policies. The reform or restructuring of schools depends primarily on the reform or restructuring of the theories and practices of teaching and learning (McLaughlin, 1991).
- Rather than either global or discrete solutions, what is needed are opportunities for educators to construct their own questions and develop courses of action valid in local contexts and communities (Cochran-Smith & Lytle, 1993).

These assumptions reflect the embedded and recursive relationships of research and practice, relationships that call into question traditional connections between researchers and practitioners, researchers and the researched (Lather, 1991). They argue for a reexamination of the nature of research and the nature

of practice, as well as the possibility of new roles in the generation of knowledge for school- and university-based teachers and for secondary school student. The Seminar thus represents a deliberate attempt to blur distinctions between research and action and to explore the empowering potential of research designed and implemented at several levels as processes of co-investigation.

In a recent call for stronger linkages between the teacher research movement and school reform, Dixie Goswami (1991) says:

I am encouraged when I read about local, state, or national plans for school change, many of which emphasize teacher empowerment and include elaborate plans for including teachers in making decisions about curriculum, school management, and so on. But I am not aware of a plan or a program that takes seriously collective teacher research as a key tool for school reform, a program that provides support over a long period of time to develop research reform communities and that is pledged to use the results for the purpose of restructuring schools to serve all children well. (p. 16)

In the remainder of this chapter, we show how the Seminar on Teaching and Learning functions as such a community for research/reform within the context of the high school restructuring efforts of the Philadelphia Schools Collaborative.

Design of the Seminar

Currently in its fourth year, the seminar involves teachers of music, social studies/history, English, science, mathematics, special education, health/physical education, humanities, computer science, home economics/human development, business, and TV/journalism.³ As a credit-bearing graduate course, the Seminar meets biweekly on Mondays for 15 two-and-a-half hour sessions spread throughout the academic year. The location rotates each session among participating schools. In between sessions, teacher leaders meet informally with participating schools at their school and occasionally schedule extra school-site meetings.

Teachers keep biweekly teaching and learning journals, with observations from their classrooms and responses to readings, in the fall semester and project journals in the spring. In addition, they complete brief reaction sheets at the end of each session. Midyear, participants develop a portfolio of all their work during the fall semester. A bulk pack of about 25 readings is distributed in the fall, and additional readings are provided in the spring. During the second semester, teachers design and carry out an in-depth inquiry project based on issues and interests evolving from the fall's collaborative work. Some of these projects are conducted individually, while others are done collaboratively with members of the Seminar or other teachers in their schools.

The Seminar is facilitated by a leadership group, typically a combination of four school-based teacher leaders and three to four university-based teachers.

This group meets on alternate weeks to examine data from the Seminar and to plan strategies for facilitating upcoming sessions and activities. Small groups during Seminar sessions, however, are often led by participating teachers or are leaderless, as in the case of journal or project groups. Meeting time is typically divided into two or three segments, with a variety of small- and large-group structures and tasks. The group uses structured oral inquiry processes adapted from those developed by Pat Carini and colleagues at the Prospect School in North Bennington, Vermont. For the past two years, participants have attended and then discussed in a Seminar session the Teacher Research Day at the Ethnography and Education Forum, and on occasion teachers from other schools have presented workshops on their own innovative approaches to interdisciplinary teaching and assessment.

Partial Perspectives

As participants in the Seminar and authors of this chapter, we write from our individual and collective experiences as part of a collaborative leadership team that has planned, facilitated, and documented the Seminar since its inception in the fall of 1989. Each of us has played a somewhat different role, both in the Seminar itself and in the process of writing about it.

These differences stem in part from our different professional perspectives. Three of us (Fecho, Portnoy, and Sion) are both school-based teachers and Seminar leaders, with special responsibilities for working on-site with the teacher participants from our own schools. Fecho is also enrolled in a graduate program. The other four of us are university-related, either as full-time faculty (Lytle), part-time faculty (Countryman and Christman), or graduate student (Cohen). In addition, one of us is an educational consultant/program evaluator (Christman), and another is academic dean at a local independent school (Countryman). We bring with us the frames and biases of our different worlds, and although we include excerpts from transcripts and teachers' written accounts of their inquiry projects in this chapter, the overall perspective on this community offered here is that of the leadership group rather than the particinants.

In this chapter we describe the work of the seminar as a researching community by examining some of its activities through three frames: teachers' talk, teachers' texts, and teachers' tasks. We argue that teacher inquiry informs professional knowledge and practice by showing how inquiring teachers (1) restructure their classrooms to make their own and students' questions and knowledge central and (2) restructure their relationships with colleagues in order to transform their schools as workplaces. In these ways and others, teachers' inquiries are playing a critical role in the reform initiatives currently underway in the district's urban comprehensive high schools.

TEACHERS' TALK

In the Seminar, teachers talk constantly, even incessantly, about their work. While daily life in schools often demands that teachers solve problems posed by others, in the Seminar teachers pose and explore problems they regard as central to their practice. As teachers across different schools, programs, and disciplines describe to one another what they do in their classrooms, they begin to identify similar questions and theories and to reconsider the routines and possibilities of classroom life in the context of apparent "givens" of schooling. In this setting, then, teachers use talk to "go public" with their knowledge and their questions. Through this talk participants devise shared ways of reseeing practice. Over time, such talk creates and sustains an inquiring community, providing not only support but also a context for approaching hard or controversial topics.

Structured Oral inquiries

We have used the structure of a reflective conversation (Carini, 1986) in the Seminar as one way to catalyze talk as intentional, systematic inquiry. Participants are asked to record impressions, definitions, metaphors, and other associations with a focus word or phrase. They then share these responses, letting them stand alone without comment. Designated members note and reflect back patterns and juxtapositions they heard from the group. Over the past several years, our focus words have included teaching, tracking, diversity, and interdisciplinary teaching.

In the first year, a group of African American and white urban high school teachers talked about tracking, inquiring into the ways students are typically grouped both within and across programs and classes. Together they raised questions about race, class, and gender, as well as about the impact of tracking on access to educational opportunities. Notes from the session convey some of the images participants shared as they explored their understandings:

Tracks that leave a trace or mark, as do animal or needle tracks
Tracking down those who could excel and making them mediocre
Running on a track, around and around without a goal—just stuck there /

being able to ride only one track at a time
The tracks on 69th Street and what it would take to switch tracks/the early
railroads, using cars on tracks to carry coal, everything had to be standardized to make it easier

Tracks as having known destinations, placing limits on where you can go

Through this talk, teachers shared the pain and anger of their memories, as well as their outrage at the perceived connections between race and track in their own teaching and personal histories and in the lives of their students. The

group's recollections stimulated discussion on their own expectations for students and how those expectations might reinforce rather than interrupt destructive patterns.

We use the structure of the reflective conversation for several reasons. First, teachers can adapt this structure to their own classrooms to help students unpack complex terms and to foster inquiry. Second, the reflective conversation can introduce an idea, such as diversity, that becomes an overarching theme; it illuminates people's prior knowledge, beliefs, and experiences as the starting place for generating new knowledge. Third, the reflective conversation helps unpack complex ideas, such as interdisciplinary teaching, to which participants bring a range of meanings and some unexamined assumptions. The reflective conversation focuses the group on concepts such as "tracking" that are both emotionally charged and central to the work of the group. Finally, when we (the leadership group) categorize and distribute data from these reflective conversations, we validate both the diversity of experiences and perspectives and the power of collective ways of knowing. We also challenge participants to incorporate this knowledge into daily decision making about practice.

Whole-Group Discussions

Sessions often close with less structured full-group talk about issues that emerged during the afternoon encounters. Occasionally, though, a particular experience or dilemma has necessitated a more prolonged full-group exchange, as in the session following our Saturday at the Ethnography and Education Forum. Participants had attended teacher-researcher and other sessions in an intense day. Our "debriefing" meeting began with the invitation to "write down a word that captures your feeling of the day." These words, read aloud around the circle, included breadth, collegiality, jammed, intellectual, hectic, important, success, saturation, crowded, confusing, informative, innovative, surprising, rushed, packed, commitment, stimulating, and intense.

Through talk, teachers questioned the knowledge base constructed by experts often situated outside of classrooms. They considered alternative sources and kinds of knowledge. Their talk also showed that inquiry into practice is not a bounded experience that leads to consensus, but rather a messy and sometimes almost incidental process that may lead to new ways of seeing what teachers encounter daily.

Small-Group Conversations

Other kinds of Seminar talk occur in smaller groups where teachers have the opportunity to share questions and concerns over time. The Seminar typically opens with journal-group meetings where participants discuss their written responses, often to topics connecting readings with practice and to questions that

the facilitators design to invite description of particular classrooms and reflection on teachers' professional stance and philosophies, such as the following:

Describe the diversity in one of your classes.

What does it mean to teach and learn in your subject area?

Write about one student who comes to mind. Think about how some of the issues raised in the articles connect or do not connect with this student's experience in classroom/program/school. Draw on observations, schoolwork, what you know of family/home, conversations with others about student. You may want to interview the student to find out more.

What are some similarities and differences between inquiry in your own and the other subject area? What are the implications for interdisciplinary teaching and learning?

In their responses to these topics, written at home and shared in the group, teachers use key issues as lenses for re-viewing practice. At other times, small groups meet to discuss inquiry in a particular discipline, to analyze and interpret data from their work in progress, or to present research projects to one another. In each case, talk and text were woven together as teachers talk to compose and or critique the texts of others.

TEACHERS' TEXTS

Texts generated in the Seminar include teachers' journals and essays, field notes, transcripts, students' writing, and other writings in which teachers document and reflect on practice. Teachers' writing, which is often stimulated by dissonances they perceive in their classrooms, programs, and schools, serves to open lines of inquiry. On a regular basis teachers write journal entries before and reaction sheets after the sessions, using the Seminar talk and shared readings to explore disjunctures and questions arising from practice. Readers of these texts include the leadership group and small groups of colleagues. Midyear, participants reread and reflect on their own writings by putting together portfolios. In this process they use their own observations and reflections as data to identify patterns of concerns and questions. These analyses provide directions for their own inquiry as well as for the collective inquiry of the Seminar during the spring semester.

Portfolios

The examination of portfolios provides a moment when, after reflecting on the individual responses to the investigation we have done collaboratively,

teachers raise those questions that seem most central to their particular situations. From these come more focused and formal inquiry projects. Over the years, the questions that emerge are increasingly about issues that have to do with collaborative work with other teachers and the impact of race and racism on classrooms and schools.

Throughout the Seminar, teachers found their perceptions of community changing, as the notion that teachers share ideas and conversations across classes, disciplines, grades, and schools became acceptable and even expected. The portfolios reveal many teachers' interest in deepening and extending their work with other teachers and ending classroom isolation. For those making such forays, however, the process is both hopeful and frustrating, and it also raises many questions.

A number of teachers use the portfolio to explore questions about how to work with colleagues in teaching and learning communities. In their questions about how to create and sustain communities with their colleagues, teachers ask not whether but how to forge and nurture connections among teachers. In her portfolio, one teacher described the nested contexts of collegial communities that characterized her teaching that year:

The Seminar is an exercise in collaborating about what is important in teaching and learning. My whole life at school is wrapped up in collaboration. Decisions in the charter are made with everyone's input. My life on the governance council is geared toward opening up conversations on what a real learning community can be like. An exercise in futility most of the time, but an attempt nonetheless. Collaboration, for better or worse, has become my middle name.

Having begun to try out ways of working with one another within and across classrooms, disciplines, and schools, many teachers are unwilling to go back to the way it was.

In another setting, a teacher cited the loss of time and space crucial to building collaborative relationships. She voiced a critique of the system and a plea for help in responding to the perceived attack on community:

I ain concerned about the loss of empowerment by teachers at the school. Overcrowding of classes, noninstructional time spent with classes, and scheduling problems have placed serious obstacles in the way of teachers working together. I really want advice, help, suggestions on how not to be beaten by a system which seems to be stacked against teachers trying to take some initiative.

Still another teacher, working with ninth graders labeled "learning disabled" in a context more friendly to the forming of teacher communities, was joined by sev-

eral of her team members in the Seminar that year. She reflected on how that "critical mass" of three was in turn enlisting the support of other members, creating community through a snowball effect:

One of our teachers who is normally reluctant to participate in our outings volunteered to go on our trip to Bushfire Theatre Company.... She surprised us by her willingness to go and validated our belief that expectations are powerful. We expect 100% from the teachers as well as the students! We are beginning to erase the atmosphere of cynicism and hopelessness that used to cloud our conversations with this particular teacher.

In the portfolios, teachers raised questions about how in the process of forming communities teachers might revitalize one another as well as students, and about how inquiring communities of teachers and students might contribute to systemic change.

Over time, the Seminar has gradually become a community where participants can share such concerns. Teachers have posed questions to one another, such as what we should teach to promote respect for cultural diversity and who should decide; sometimes students have prodded teachers to ask questions. Different themes emerged from white and African American teachers. The portfolios show how many white teachers struggle to come to terms with the development of their beliefs about themselves as white teachers of African American students and with the dissonance they feel at times in their classrooms. One white teacher asked:

Am I ready to do collaborative work with my peers so that I might better understand how I interact with kids from many different backgrounds? What's wrong with teaching kids "white middle-class" strategies if that's how their country is run?

While she framed some of her questions this way, at the same time she wrote about the way the process of reading and talking in the Seminar has affected her as a teacher:

I hope that the accusations by teachers of color that white middle-class teachers are keeping their children in a powerless position are strengthened with a willingness to help me learn techniques that will teach my subject to all students.

Another teacher wrote:

A student watching a . . . film commented on the fact that the students . . . were white! I had not noticed what color they were! Part of the knap-

sack mentality. [A] student told me I must be black! When I asked him why, he said I could sense things very well even if I was not directly involved in the incident. My question is—is this a black attribute or a mother's antenna? Aren't children just children? Do we, by saying a child behaves a certain way because he/she is black, continue to isolate, stereotype, or stigmatize him/her? Aren't they all individuals with some qualities that are unique to them as people?

Many of the African American teachers raised questions about the impact of racism on their students and at the same time reached deeply into their own experiences and those of their families as African American students in both segregated and integrated educational institutions. They looked at racism in very personal and political ways, as members of families and communities, as both students and teachers.

One teacher discussed the historical educational experiences of her family, using this context to ask broader questions about the present conditions for minority students and teachers:

I come from a long line of teachers who were educated in segregated schools in the Deep South. These schools were run by Episcopalians and Methodists who had high expectations for the students they taught.... They were taught in a one-room school house with grades ranging from 1 to 12. [They] went to uncr [United Negro College Fund] schools to become teachers, principals, doctors, and lawyers. Black students do not have to sit next to white children to learn, but they do need to have access to teachers who value them and their learning. How is the teacher of color different from that of the days before Brown v. Board of Education? Would desegregation solve the problems of urban education? Is desegregation the only way to insure adequate funding of inner-city schools? Are minority teachers more effective teachers of minority students?

Another African American teacher who had attended predominantly white schools wrote about her own educational experience as "littered with incidents of racism," saying that she had been denied opportunity by a white teacher who had discouraged her from pursuing an advanced degree because it "wasn't for her."

Teachers' questions about race and culture in classrooms often led to larger questions about systemic problems in changing schools. One African American math teacher connected issues of minority-student achievement with the institutional racism of the system:

When I first started teaching ... I thought I would and could make a difference. As a young African American woman who had no African American role models throughout most of my formal education experience, I felt that my sheer presence would make a definitive statement. ... I know that I have reached some, perhaps many, but they are not nearly enough. ... My issues and concerns evolve from this frustration. ... It appears that a greater percentage of African American and Hispanic students are rostered to general math classes than any other group(s). I would like to research this. I suspect the reasons [this occurs] fall into these four categories: institutional racism, low teacher expectations, lack of proper counseling, and insufficient preliminary math preparation for the academic courses.

In their portfolios, teachers look critically at years of practice, at the structures of schooling in their workplace, as well as their own struggles to make meaningful changes in their classrooms and their schools—and from these reflections find directions for their own research.

Common Readings

Each year Seminar participants read teachers' texts as well as the work of other educators. Read critically with a practitioners' perspective, journal articles have helped teachers discover and shape their own questions as well as created another shared context for inquiry. Teacher researchers' work has provided important touchstones throughout. Eleanor Duckworth's (1986) research into the phases of the moon conducted with teachers in her class, for example, set up connections between inquiring teachers and inquiring students. Essays by secondary teachers (including several in the Seminar) traced dissonances that led to changes in their classrooms, addressing issues from conferencing with students about their writing to tracking and untracking advanced placement classes. Participants' repeated requests for more time to talk about the readings seemed to reflect the rarity of this kind of forum.

Discussions at the end of the first year about race and racism in schools helped to shape readings for the second year's Seminar, which began with texts exploring issues of difference and diversity in the form of both narratives, such as excerpts from Campbell's (1989) Sweet Summer and Kingston's (1975) Woman Warrior, and educational research, such as studies of Latino language-minority students and of African American students in a multiethnic context. Additionally, first-year inquiry projects stimulated second-year readings focused on classroom inquiry across disciplines and alternative assessment. Similarly, concerns and questions expressed in several forums at the close of the second year shaped reading selections for the third year. Partici-

pants' inquiry projects stimulated considerable interest in issues of educational tween classroom practice and institutional change. access and opportunity, and participants also wanted to pursue connections be-

Readings for the third year explored these issues, beginning with interrogations of schooling practices such as Oakes's (1988) analysis of tracking as "a strucgender in relation to educational access. Texts also include programs and aptural contribution to unequal schooling" and including analyses of race, class, and inquiry into her own classroom in "Untracking Advanced Placement English" and proaches that begin to "answer" these issues of access, such as Cone's (1990) as teacher and students engage in intentionally multicultural ways of reading text. ing: Implications for Practice," in which researchers read the text of the classroom Crichlow, Goodwin, Shakes, and Swartz's (1990) "Multicultural Ways of Knowcommunities, as literacy communities, as multicultural communities (focusing on were organized around the themes of classrooms, charters, and schools as learning In the fourth year, readings made problematic the concept of "community" and race and racism and on diversity), and as collegial communities.

TEACHERS' TASKS

teacher research as well as school reform is reinventing the tasks of teaching and support the tentativeness of inquiry and tolerate the dissonance of diverse perreconstruct their classrooms. In the preceding sections we have explored briefly thereby recast themselves as creators of knowledge about teaching, they also learning. As teachers assume an inquiring stance toward their practice and classrooms but also in making changes in their practice that reflect and enact spectives and lack of consensus. In this section, we discuss how the teacher how teachers in the Seminar use talk and texts to build a community that could what they have come to know and value about what it means to participate in inquiry projects of the Seminar involve teachers not only in reseeing their The Seminar's design reflects the assumption that the central purpose of

order to identify possible lines of research for their teacher inquiry projects; an inquiring community. questions reflect the many ways in which the collective inquiry of the Seminar questions include: may intersect with individual teachers' classroom experience. Some of these these become the focus of the second semester's work. The diverse research Midyear, teachers review their notes, journal entries, and reaction sheets in

How does the use of alternative assessment activities in a multidisciplinary among the teachers involved? unit influence the evolution of the curriculum and the interactions

> What happens when a charter school explores a contemporary issue through writing across the curriculum?

What happens when a social worker and a teacher co-facilitate family group sessions?

What happens when students write about controversial and difficult topics in their journals?

How do students see manifestations of racism in the school? How can I help them think about this and consider and explore ways to handle these

What happens when a music teacher invites a staff development coordinator to work with her humanities class?

analysis and interpretation. groups determined by the focus of their inquiry in order to refine their questions, develop a research plan, share data, and lend differing perspectives to Over the next several months, teachers met together in small research support

contemplated the dissonance between what she was coming to know, her own classrooms. In her initial proposal for her project, one teacher, Ruth Smitter search for ways to invite students' knowledge and students' questions into their how to engage their students in posing questions and problems. They began to practice, and the cycle teachers may inadvertently re-create in a tracked scheel As teachers become involved in their inquiry projects, they often consider

the class more and learn more. . . . I seem to spend too much time pre as group work, interdisciplinary lessons and projects, they would enjoy of the class. . . . If I was willing to take a risk and try different things, such learning process.... I am doing this because I am afraid of losing control attempting to transmit information rather than engaging them in I am concerned with the fact that in my general math class . . . I am just paring for my academic classes and slighting the classes that probably need it the most.

semester. She had her students keep math journals and analyzed their responses ing. As Smitter's questions evolved, she shaped her research for the second as she implemented several important changes in her classroom, including small Implicit here were questions about who holds authority over classroom learnheterogeneous study groups. Smitter concluded her project with many questions:

know if my students are learning more, and how can I evaluate this? Are I still have many questions and many problems to resolve. How do I

good results in the midterms an indication that my students are learning? Do I have the time and energy and creativity to pose problems to my students rather than just assign them seat work?... How much do I need to interact with my students?... Did the ESOL [English for Speakers of Other Languages] students in the classroom who felt comfortable doing math feel threatened by writing? Would they be able to work together in groups or would it cause a separation in the classroom?

Sam Karlin began his project paper with this satirical description of what his classroom looked like before the Seminar:

But this is no ordinary teacher, and this is no ordinary class. This is the Department Head of Science, and this is the senior physics class.... The class stares in awe as this master sorcerer hurls flames of kinematics and charged bolts of scientific notation at those below from his "castle of physics."... Everything in the lands surrounding the "castle" is couched in numbers... but by far the most mechanical feature, the strongest statement of the power of numbers in this class, at least in the eyes of the students, is the computer printout that displays all their grades for every homework, lab activity, test, and class assignment.

Karlin reorganized his classroom so that students worked, either individually or in small groups, to explore their understanding of physics concepts by formulating problems. He described their efforts:

Early attempts at writing to express concepts in physics were not very inventive and showed little understanding, but rather the students generally copied the problems that were presented in the book and substituted different objects for original objects and slightly altered numerical values for those values presented in the problem.

As students learned that their substitutions represented impossible conditions, they learned more about physics, and eventually they became more sophisticated problem posers. Karlin wrote:

Students displayed an eagerness to have their problems included in upcoming tests. The problems were always accompanied by the author's name and some students felt as if having one of their problems included in the examinations was a "badge of honor."

Both Karlin and Smitter challenged traditional conceptions of who has knowledge, as they sought ways to share authority, to make their classrooms more student-centered, to evoke students' questions, and to learn from students.

Other teachers in the Seminar decided to explore how different ways of knowing illuminate concepts and issues. Margaret Klock and Pat Hansbury, English and history teachers respectively at Wells High School, focused on the connections that they and their students were forging between their two classrooms and subject areas.

The question that Pat and I wanted to examine was whether students who actually had the experience of . . . joining their history class with their English class would benefit. Would they become more involved with both subjects? Would the joining increase understanding of the relationship between the subjects? Would it lead to the propensity to make connections between ideas elsewhere, not just in history and English class? Or would it merely confuse them? Faced with these questions, we determined early in the year to try to answer them in the spring, during what I now will always think of as the Season of the Revolution.

Klock and Hansbury documented the many ways in which they and their students connected the study of Orwell's *Animal Farm* (Orwell, 1954) with the study of the French Revolution. From their perspectives, theirs was a story of revolution—of how physical and intellectual barricades toppled in the face of a community of adult and student learners together creating knowledge.

We joined the classes for an examination of the political spectrum. The idea for this lesson can actually be traced to a former student in my class and Pat's who is currently in the eleventh grade. Two years ago Pat was teaching her separate lesson on this topic. She had the class examine the whole political spectrum from radical to reactionary, using such issues as civil rights and women's rights. Suddenly this young man suggested that the class whose members had all read *Animal Farm* with me, try to place its characters on the political spectrum. From his inspiration, this year's lesson developed. (We must tell this young man that his idea sparked a kind of teaching revolution.)

One day after my class, the same young woman who was so perceptive about the Renaissance in her Julius Caesar test stopped to complain to me that George Orwell had been unfair to Napoleon Bonaparte when he used his name for his main character. Her point was that Bonaparte was a multifaceted person who along with his transgressions had done much that was good. When I reported this conversation to Pat, she soon used it in her history class to discuss historical point of view. Orwell, of course, was an Englishman, and the English tend to place Napoleon in the same league with Satan. The discussion came back to English class as we examined the "history" of the character Snowball as it was presented to the animals on the farm from the point of view of his enemy, Napoleon the pig.

Klock and Hansbury wanted their assessment of student learning not only to tap into the connections that students had already made during the course of study but also to provide additional opportunities for connection. Together they brainstormed a list of essay questions that would engage students in making new meaning of the texts that they explored in class. One of the questions was:

Suppose that Napoleon Bonaparte had the chance to read George Orwell's *Animal Farm*. Would he be pleased or displeased? Writing in his voice, answer the question, giving three reasons for his pleasure or displeasure.

The teachers returned to their students' responses to this question in order to understand more deeply the kinds of connections pupils are able to make between history and English.

Teacher inquiry projects have become critical texts of the Seminar. At each year's closing session, for example, teachers choose a section from their projects to render aloud in a dramatic reading. Even these small selections make visible common themes and concerns, often bringing the voices of students into the Seminar circle. Making available published accounts of teachers' projects has linked teachers' inquiries within and across schools. Finally, teachers have begun to present their work to more public and distant audiences at local, regional, and national professional conferences and meetings. In the national conversations about educational reform, these texts foreground teachers' knowledge and provide important data about what matters to teachers.

INQUIRY AS REFORM

The teacher inquiry of the Seminar in Teaching and Learning happens within the restructuring efforts in comprehensive high schools. The formal nesting of the seminar within the activities of the Philadelphia Schools Collaborative has provided the opportunity for linking teachers' inquiry processes with structural changes underway in their schools. Building from their experience as inquirers in the seminar, teachers are re-creating their classrooms in ways that support student inquiry. Teacher research is thus providing "the grist for ongoing instructional revision and improvement" at the classroom level (Cochran-Sınith & Lytle, 1993).

While we began with the assumption that teachers would look with a critical perspective at their own classrooms, we have come to see that teachers also use the critical frame of inquiry to examine and alter common assumptions and practices of schooling. In the concluding section of this chapter, we present some examples of how teachers have braided their individual and collective in-

quiry into their work as change agents in their schools. The examples we have selected reveal how they have reconceptualized their leadership roles to incorporate new understandings of how teachers learn, how they have infused inquiry into change processes by critically examining what they are doing as they do it, and how they have risked making problematic elements of the reform agenda to which they are most committed.

On-Site Staff Development as Collegial Inquiry

Many teachers in the Seminar serve in formal teacher leadership positions in their schools as charter and/or staff development coordinators and department heads, while others work informally to influence their colleagues. In a paper for a symposium about the Seminar in Teaching and Learning given at the Ethnography in Education Forum, Fran Sion (1991) described how her participation in the Seminar has influenced her re-forming of staff development at her school. Sion recalled her mode of preparation and her stance toward collegial learning when she assumed her role as staff development coordinator in 1975:

I was considered to be the "expert"... I read the latest journals ... I talked with and observed teachers. I wrote ...

The memories are painful to this day. I was well prepared, as always, but my "listeners" were indifferent, totally uninvolved. There were no questions, no comments, certainly no sharing, absolutely no interest. I was delivering a monologue. Where had I failed? The formula worked so well with some departments, why not others? I had no answer. I truly believed that teachers learned best as we all had in college—by listening to well-prepared lectures and then interacting with the lecturer. Wasn't that the format I was structuring? (p. 3)

Through her participation in the Seminar, Sion reframed her questions about teacher learning and her role as an instructional leader: "How can I shape workshops to ensure that teachers would be participants rather than the audience? How do teachers working together learn best?" (p. 5). Sion sought data to address these questions by recording her observations and reflections in a journal as she changed staff development practices at Wells. In her journal, she wrote:

About twenty-three of us . . . got together to share and discuss our experiences using cooperative learning strategies in our classrooms. I chaired the session and opened by *briefly* discussing some strategies. . . . I then turned the meeting over to my colleagues who had agreed to share their experiences and materials. We sat in a circle the whole time—no one assumed the physical stance as leader—including me! What a great expe-

rience this workshop was and the credit goes to my co-workers. They fielded questions from those who were considering the approach but were apprehensive. The time flew.

Sion's insights about on-site staff development were echoed in the experiences of others in the Seminar. At DuBois, for example, Dina Portnoy instituted a program of study groups in which small groups of teachers selected topics for collegial inquiry in lieu of attending sessions of mandated staff development organized by others. At Ali High School two of the Seminar participants instituted a Miniseminar in Teaching and Learning for interested colleagues as an alternative format for on-site staff development. Several teachers have begun to see collegial inquiry as a way of revitalizing their connections and redirecting their work with departmental colleagues and co-teachers in charter schools and other special programs.

In each case the teachers involved have begun to reinvent the collective work of charters, departments, and staff development sessions as forms of collegial inquiry and thus have essentially re-created the inquiring community of the Seminar in a variety of settings. In doing so, they are rearranging the organizational and structural features of schools to link inquiry with change processes, thus altering the culture of their workplace and the profession of teaching.

Teacher Collaboration as Collegial Inquiry

As we have discussed previously, teachers use the Seminar to make problematic many dimensions of teaching, learning, and schooling. Problematizing everyday interactions becomes a "habit of mind" that supports teachers as they risk sharing power with their students and colleagues and confront the consequences of involvement after entire careers of isolation and detachment. In her inquiry project, Meg Silli elected not only to collaborate with a colleague but also to conduct what she called an "anatomy" of this collaboration:

Thinking that the most workable pair would be English and world history, I asked the history teacher, the long-term substitute, to do an interdisciplinary unit with me; he agreed.... I kept a journal, elicited written responses to questions from my partner, and got journals and test results from the students.

These pieces of writing show me that the students benefited greatly from the synergy of the collaboration. They also show that our collaboration was unequal, that most of the problems that occurred were solved by one person, that the expectations both of each other and of the students varied, and that the perception of the need for structure was different for each teacher.

What Silli detailed in her report is a collaboration that succeeded in enhancing student learning but failed in providing a satisfying collaborative experience between teachers. What is important here is that Silli's inquiry involved her in a realistic and powerful assessment of the limits and possibilities of teacher-to-teacher work in this situation. It seems inevitable that teachers will confront disappointments when they attempt to restructure schools in order to build new partnerships. Inquiry provided Silli the opportunity to engage with and build her own knowledge about these problems rather than to blame, disengage, and/or simply become discouraged about working closely with others. Her teacher research project highlighted some of these issues:

Problems with collaborating remain. The type and amount of planning needed must be negotiated at the beginning of any partnership. I feel that we were very far apart on this issue. In my next collaboration, at the beginning, I will insist that we negotiate how often we meet, who calls the meetings, and what we should get accomplished in each meeting.

Silli shared her paper with her partner, thereby making it possible for him to learn from the experience. She also included his response and thus his voice in her "anatomy" of their work together. In all of these ways, Silli is working through issues of power in pedagogy, teacher collaboration, and research and sharing what she is coming to know about the complexities and boundaries of collegial work.

CONCLUSION

The work of participants in the Seminar in Teaching and Learning exemplifies how teacher inquiry enacts the fundamental purposes of reform and constitutes a powerful alternative to more traditional forms of staff development. Posing problems and generating questions from experience are critical for the intellectual growth of students, teachers, and administrators. When teachers work together to research classroom and school practice, they position themselves individually and collectively as agents of change, committed to transforming organizational cultures in profound ways.

NOTES

1. The Philadelphia Writing Project is a school-university partnership linking the Graduate School of Education, University of Pennsylvania, and the school district. As an urban project, it focuses on professional development, collegial inquiry, and school

reform, with a major emphasis on teacher research into issues of writing/literacy and cultural and linguistic diversity, multicultural education, interdisciplinary curriculum, and performance-based assessment.

- 2. Research on the Seminar is part of a larger comparative study of three researching communities of urban educational practitioners with whom the first author (Lytle) is currently investigating relationships among inquiry, professional knowledge and practice, and school/program reform. In addition to the Seminar in Teaching and Learning (comprehensive high school teachers across the disciplines), the others are a researching community of K-12 teachers (part of a national network of urban sites of the National Writing Project) and another of adult literacy teachers and administrators (a project of the National Center for Adult Literacy). All three of these researching communities are connected to the Philadelphia Writing Project, a teacher collaborative for urban educators as writers, researchers, and reformers.
- 3. The numbers have varied across the four years from 32 to 45 participants, including both school and university teachers. Begun in 1988 with three schools, the Seminar has expanded to include participants from five others.
- 4. The Ethnography and Education Forum is a three-day national conference held annually in February at the Graduate School of Education, University of Pennsylvania. Since 1986, there has been a special emphasis on Saturday as Teacher Research Day, intended to bring together teacher researchers from across the country to share their classroom and school-based research with their colleagues in schools, programs, and universities.
- 5. Parts of this chapter are adapted from a series of papers written for a symposium about the Seminar in Teaching and Learning presented on Teacher Research Day at the Ethnography and Education Forum, University of Pennsylvania, 1991.
- 6. This framework comes from Cochran-Smith and Lytle (1992a).

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