

Rethinking Teacher Leadership through Professional Development Schools

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Abstract

In this article, we trace possibilities for new forms of teacher leadership that are emerging in professional development schools (PDSs)—collaborations between schools and universities that have been created to support the learning of prospective and experienced teachers while simultaneously restructuring schools and schools of education. We examine data from in-depth case studies of seven PDSs, supplemented by research in a number of other professional development schools where similar patterns of teacher leadership have been noted. In our analysis of teacher leadership in professional development schools we make three claims: that teacher leadership is inextricably connected to teacher learning; that teacher leadership can be embedded in tasks and roles that do not create artificial, imposed, formal hierarchies, and that such approaches may lead to greater profession-wide leadership as the "normal" role of teacher is expanded, thereby improving the capacity of schools to respond to the needs of students.

Over the last decade, a wide range of efforts to support, acknowledge, reward, or better use teachers' abilities has been attempted—from career ladders and merit pay proposals that have aimed to identify outstanding teachers, to differentiated roles like mentor teachers and lead teachers, to the creation of professional networks and other learning communities. Supporters of these initiatives variously hope to recruit and retain talented teachers, increase teachers' knowledge and skills, and motivate greater effort, more learning, or different practices on the part of teachers.

Although seeking new roles or recognition for some teachers, many of these initiatives have maintained traditional views of most teachers' roles as implementers of curriculum decisions and procedures de-

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tided elsewhere in the bureaucracy. A small number of teacher leaders are formally appointed to new roles, which, it is hoped, will help guide or support other teachers. These leaders are assigned new slots in the already highly specialized administrative structure of schools. Although they engage in new kinds of decision making, development, and mentoring, the knowledge, capacities, and authority of the vast majority of teachers are assumed not to change.

Other emerging strategies are more explicitly focused on redesigning the work, workplaces, roles, and responsibilities of all teachers—in short, redefining the job of teaching as one in which all teachers engage in decision making, curriculum building, knowledge production, peer coaching, and continual redesign of teaching and schooling. Teachers in such settings assume roles traditionally reserved for "leaders." Their fuller professional role enables them to learn and lead continuously as they inquire together into ever more responsive practice. This professional conception of teaching relies on greater knowledge for teachers as the basis for responsible decision making and is thus related to teachers' preservice and in-service learning opportunities as well as the kinds of tasks they engage.

In this article, we trace some of the possibilities for new forms of teacher leadership that permeate teaching and are accessible to all teachers who engage the broader professional roles available in professional development schools (PDSs)—collaborations between schools and universities that have been created to support the learning of prospective and experienced teachers while simultaneously restructuring schools and schools of education. In the course of co-constructing learning environments where novices can learn from expert practitioners, the more highly developed professional development schools allow veteran teachers to assume new roles as mentors, university adjuncts, school restructurers, and teacher leaders. They also allow school and university educators to engage jointly

in research and rethinking of practice, thus creating an opportunity for the profession to expand its knowledge base by putting research into practice—and practice into research. And PDSs socialize entering teachers to a new kind of professional teaching role, one grounded in collaboration, critical inquiry, and a conception of teacher as a decision maker and designer of practice (Darling-Hammond, 1994a). In these ways, professional development schools can both enable teacher leadership for the teachers who work in them and help to build a future teaching force that assumes leadership naturally as part of a more professional conception of teaching work.

We examine the potential of PDSs for fostering more widespread and equalitarian forms of teacher leadership using data from in-depth case studies of seven PDSs that are among the more mature of these new institutions (Darling-Hammond, 1994b), supplemented by research in a number of other professional development schools where similar patterns of teacher leadership have been noted (Boles & Troen, 1994; Kerchner, 1993; McCarthey & Peterson, 1993; Teitel, 1992). The case studies, sponsored by the National Center for Restructuring Education, Schools, and Teaching (NCREST), were conducted using a common research design in schools that had been engaged in PDS work for a number of years. The case studies were based on extensive interviews, observation, and review of PDS documents, surveys, and teachers' logs over a year. Most fieldwork was done during 1991 and 1992. Most of the partnerships between schools and universities were relatively longstanding, and the partners held joint intentions for simultaneous rethinking of both teaching and teacher education, although sometimes these intentions developed out of the collaborative process rather than preceding it.

Thus, these PDSs are more likely to represent the aspirations of PDS proponents (e.g., Darling-Hammond, 1994a; Goodlad, 1990; Holmes Group, 1986, 1990) than to

be typical of the vast range of experiments that have been launched under that name over the last 10 years. Among the more than 200 professional development schools that now exist, few represent all of the possibilities of PDSs, and most are at various stages of struggling to invent collaborative relationships where none existed before (Darling-Hammond, 1994a; Duffy, 1994). Their infant efforts are highly varied. Though they have in common a striving to improve education for students and for current and prospective teachers, no single fledgling professional development school encompasses the entirety of goals for professional development schools writ large. Some emphasize redesigning pre-service teacher education; others have created innovative models for in-service development through restructuring and action research; still others have designed new teaching roles that renew veteran teachers and teacher educators. Regardless of a particular PDS's starting point, a number of recent accounts suggest that the work of PDS development encourages beginning and veteran teachers, teacher educators, and administrators to redefine their work and their working relationships in a variety of unanticipated ways. Our case studies suggest that, in places where the PDS concept has been growing for a number of years, teachers have begun to transform teaching fundamentally so that it incorporates leadership roles—defined in terms of functions rather than titles—as the norm for all teachers.

In our analysis of teacher leadership in professional development schools we make three major claims: that teacher leadership is inextricably connected to teacher learning; that teacher leadership can be embedded in tasks and roles that do not create artificial, imposed, formal hierarchies and positions—and that such approaches may lead to greater professionwide leadership as the "normal" role of teacher is expanded; and that the stimulation of such leadership and learning is likely to improve the ca-

capacity of schools to respond to the needs of students.

In the course of developing these ideas, there are a number of topics we do not cover in this article. Although we point to teachers' views that their practice has become more effective, the case studies did not assemble evidence that teachers' engagement in new roles yields greater learning for students. In addition, we do not treat in detail the many problems of establishing professional development schools and of creating new roles and relationships. These are discussed elsewhere (Darling-Hammond, 1994a, 1994b; Duffy, 1994). Finally, although we recognize the importance of and changes in the roles played by principals, parents, and nonteaching staff in PDSs, a full examination of these issues is beyond the scope of this article.

Teacher Learning and Teacher Leadership in PDSs

Professional development schools are a special case of school restructuring, aimed both at the creation of learner-centered practice within individual schools and at the creation of a profession of teaching comprising knowledgeable, empowered teachers. As they have been conceived by the Holmes Group (1986, 1990), the National Network for Educational Renewal (Goodlad, 1990), and by school- and university-based educators involved in the development of some of the earliest models (National Center for Restructuring Education, Schools, and Teaching [NCREST], 1993), professional development schools have a distinct mission: They aim ultimately to prepare all teachers to teach all students for understanding; to meet the diverse needs of whole children and families; to enact shared governance within the school community and in the relations between schools and universities; to redesign schools and schools of education for constructivist, personalized, and collegial learning; and to function as communities of learners. They are not intended to be merely laboratory

schools or pilot projects: their aim is to transform the entire educational enterprise by changing teaching, schooling, and teacher education simultaneously.

Thus, in the eyes of many who are seeking to create these new institutions, the professional development school is a strategy that can potentially connect all of the elements of educational reform (Murray, 1993) and solve the chicken-egg dilemma of preparing teachers for schools that do not yet widely exist. The dilemma is that, if the goals of school reform are to be realized, teachers must be prepared to function in schools that are restructured to meet the needs of diverse learners well. Yet such schools cannot exist in large numbers until more teachers are prepared differently and the practice of veteran teachers has changed significantly. The resolution of the dilemma relies on colleges working in partnership with local schools to agree to change jointly and simultaneously both the manner in which teachers are prepared and the conditions under which they practice. In so doing, PDSs provide a mechanism that cuts across institutional boundaries to create greater knowledge and capacity across the entire profession.

In this mission, PDSs challenge traditional ideas about who are learners and who are leaders within schools and in school-university partnerships. In the most highly developed PDSs, teachers work in teams with each other, with prospective teachers, and with teacher educators, discussing learning and learners from many vantage points; they examine the effects of their practice; they adapt practices based on evolving understandings of learning and learners; and they continually rethink school structures and teaching strategies. Veteran teachers mentor new teachers and co-construct teacher preparation programs; both novices and veterans develop curriculum and make decisions about school and classroom practices; teachers lead problem-solving endeavors within and beyond school boundaries and participate in re-

search within and beyond their classroom walls. The focus of PDS work on reconceptualizing teaching and learning creates new forms of teacher leadership linked to new forms of teacher learning.

In highly developed PDSs, like some other restructured schools, these opportunities for leadership are available to all teachers, without regard to formal roles and titles. Perhaps more significant, professional development schools are preparing incoming teachers to see curriculum building, decision making, school change, and research as part of their normal teaching role, thereby developing a new generation of teachers for whom leadership is a starting point, not a goal to be achieved at the close of a teaching career. In short, the conception of teaching and the role of teacher are being redefined to include those responsibilities for developing knowledge and transforming practice that were allocated to other organizational slots when teaching was bureaucratized and deskilled after the turn of the last century.

This conception of teacher leadership stands in contrast to the traditional, officially denned, prestructured, "add-on" leadership positions portrayed by Smylie and Denny (1990) as the "individual appoint, anoint, and training" approach. Such positions have been problematic in at least two ways. First, they often violate the strong egalitarian ethic among public school teachers (Boles & Troen, 1994). Within the standard system, attempts to assign formal leadership roles to teachers often place would-be teacher leaders in direct opposition to their colleagues. Acknowledged differences in status based on knowledge, skill, and initiative are seen as taboo within the culture of teaching (Boles & Troen, 1994; Little, 1988) as they blur lines between management and labor and create differences among laborers where solidarity is needed (Tyack, 1974). Given this ethos, Little (1988, p. 84) observes, "Teachers placed in positions that bear the titles and resources of leadership display a caution

toward their colleagues that is both poignant and eminently sensible."

Second, recent research suggests that defining and assigning formal leadership roles to teachers within the conventional structure of schools may benefit teacher leaders themselves, but there is usually little additional learning for the "nonleaders." In a review of research on teacher work redesign, including formal leadership roles, Smylie (1994) found that teachers who assume redesigned roles are more likely to learn and change their classroom practices than are the other teachers who are presumed to benefit from their work. Because the designated leaders (mentors, curriculum developers, and the like) have more opportunities for learning and for collegial interaction in their new roles, they become more professionally engaged and knowledgeable. In other words, teacher learning and teacher leadership are inseparable.

We highlight teacher leadership roles that have materialized in highly developed PDSs where teachers serve as mentors and teacher educators, curriculum developers and decision makers, problem solvers and change agents, and researchers engaged in knowledge building. We emphasize that these roles are being developed for all teachers, not just a few that are specially anointed or those who happen to work in professional development schools today, and that the roles influence new teachers as well as veterans. The role of the teacher embedded in these schools is that of an individual who transforms a knowledge base, reflects on practice, and generates new knowledge. The teacher must be a learner in order to teach, and in so doing, the teacher comes to own and produce knowledge rather than being controlled by it. With this liberating process, the teacher becomes a leader as well—developing the knowledge and making decisions that shape practice.

Teacher Learning

The case studies we examined illustrate how professional development schools are

creating new possibilities for teacher learning, as novices and veterans, school-based and university-based teacher educators, have opportunities to *learn by teaching*, *learn by engaging in restructuring*, and *learn by collaborating* (Darling-Hammond, 1994a). These schools are developing around a constructivist understanding of learning for both teachers and students, one that acknowledges that, as all members of the school community formulate, test, and enact ideas, they forge new knowledge and create more profound understandings. The generative iterations of this cycle of teaching and learning locate control of the learning with the learners themselves, thereby involving them in leading rather than implementing both personal and institutional transformations.

Learning by teaching. Traditional frames for teacher education, like those for elementary and secondary students, have envisioned teaching primarily as information transmittal and learning as the acquisition of knowledge by individuals. Whether in courses or student teaching, clear distinctions between teacher and learner, expert and novice, have been maintained, along with tidy compartments separately housing theory and practice, knowledge and application.

In professional development schools, these distinctions begin to disappear. Teacher educators learn more about teaching as they teach collaboratively with veteran teachers. Veteran teachers find themselves learning more about both the theory and practice of teaching as they teach novices. The old saw that one really learns something when one teaches it to someone else has proven true for PDS participants at many schools. As one teacher at Wells Junior High put it, "Watching somebody else teach and thinking how I might change it ... forced me to really think about teaching ... in a different way." Another echoed, "it helps you reflect on what you're doing as well as reflect on what the interns do" (Miller & Silvernail, 1994, p. 42).

Although insights into teaching frequently occur when veteran teachers work with student teachers, the power of this reflection appears to be substantially augmented when a faculty collaboratively engages in developing a learning environment for a cohort of student teachers or interns. In a study of three PDSs, Teitel (1992) found that the "deep engagement" of PDS teachers in the preparation of preservice teachers caused them to report having very different experiences with student teachers than teachers in non-PDS schools, experiences that PDS teachers think benefit their own professional development and their enthusiasm about teacher education.

PDS teachers' collective engagement in the process of preparing new teachers results in deeper insights and the development of shared norms that are absent in the traditional idiosyncratic placements of student teachers with lone cooperating teachers. The case studies reviewed here suggest that, as classroom teachers become teacher educators, they find their own knowledge base deepening and their practice becoming both more thoughtful and more shared.

Learning by redesigning schools. In restructuring professional development schools, teachers also find that they are learning by thinking through, researching, debating, and implementing innovations. Whitford (1994) describes how teachers at Fairdale High in Louisville, working in a PDS with the University of Louisville, read professional literature and held discussions to answer questions that emerged as they planned and attempted their own reforms. In this case as others, "much professional development occurred in a learning-by-doing approach" (p. 86). In such schools, experts and novices learn together about teaching—in newly forged intersections between research, theory, and application—as they restructure schools together.

Learning by collaborating. Perhaps one of the most promising aspects of professional development schools is that they emphasize collaborative planning, teaching,

and decision making within and across institutions in ways that redefine both the act of teaching and the nature of schools. Most PDSs have introduced or strengthened existing arrangements for team teaching in schools and, frequently, for teacher education courses as well (American Association of Colleges for Teacher Education [AACTE], 1992). Beginners and veteran teachers learn from each other as they engage in cooperative team planning and teaching. Cohorts of student teachers or interns, when they are organized in pairs or teams, have many opportunities to collaborate with each other as well as with the teaching teams they work with at school.

Shared decision making creates still other "teachable moments" within and across the several role groups of PDS inventors and participants. At P.S. 87, a PDS working in collaboration with Teachers College, Columbia University, in New York City, one veteran teacher echoed the sentiments of many others throughout the professional development schools who found themselves inspired by new opportunities to collaborate with colleagues: "The support I received through this ongoing informal and formal sharing was what gave me the courage to try something new. I never would have done it alone" (Darling-Hammond, 1994a, p. 12).

Other researchers have found that teachers are most likely to engage students in cooperative learning experiences when they themselves have been involved in such opportunities. At I.S. 44, another New York City PDS working with Teachers College, the benefits of collegial learning extend from school and university faculty to student teachers and students. In a month-long schoolwide project, children enjoy the benefits of collaborative learning as they work in groups on their interdisciplinary projects that are planned and supported by teams of student teachers, school-based faculty, and university-based faculty. In this hands-on experience of curriculum invention and interdisciplinary team teaching, teaching and

learning roles become fluid and inseparable. Learning by teaching, learning by doing, and learning by collaborating occur simultaneously within both the teaching teams and the student groups. As Lythcott and Schwartz (1994, pp. 136-137) note: "This was not a program in which 'experts' mentored apprentices; rather everyone was learning together. . . . Released from a self-conscious mentor role, cooperating teachers began to focus on what they themselves had been able to achieve in doing things differently, and to build on those. Rather than explicitly focusing on what student teachers were learning about teaching, they assumed that that was going on and they simply talked, analyzed, invented, modified, and shared in conversation with them as one set of colleagues to another—a new model for student teaching."

As a consequence of this experience, student teachers and veteran teachers acquired new frames for thinking about their teaching—frames that include professional collaboration and collegial problem solving, interdisciplinarity, and "whole child" perspectives as foundations upon which to build their future learning and experience. They described themselves as "collaborating constantly" and able to understand more about their students by seeing them in other classrooms and subjects. A transformation of thinking about both students and subjects occurred as a result: "Originally (each of us four student teachers) thought of ourselves as 'experts' only in one insular discipline. Now at the conclusion of this program it would seem awkward for me to address a student as just a reader of English literature and not as the rounded individual he/she is. . . . The student and the discipline would suffer from this artificial narrowness" (Darling-Hammond, 1994a, p. 13).

These kinds of experiences for new teachers can create a different frame from which they will learn throughout their professional lives. If they see learning as continuous, collegial, integrated, and child-

centered—and if they see collaboration and reflection as opportunities for learning—they are more likely to build new kinds of knowledge for practice and to use knowledge differently.

Teacher Leadership Roles

These opportunities for new kinds of learning become the basis for new forms of leadership for teachers. In PDSs like those we have examined, teachers' beliefs, experiences, personal knowledge, and values are all acknowledged as fundamental in guiding the active process of creative inquiry, analysis, and evaluation that are essential to the practice of professional teaching. These activities stimulate hands-on learning that in turn leads to an inventive approach to practice that "bubbles up" into new forms of professional, collegial leadership (Boles & Troen, 1994, p. 9). At the Learning/Teaching Collaborative, a teacher-initiated professional development school collaboration between six schools in Brookline and Boston, Massachusetts, and Wheelock and Simmons Colleges, teachers have changed their roles and the conditions of teaching and learning as they have formed teams, taken risks with their teaching, expanded their knowledge base, and relinquished their individual control to the collective judgment of the group. Of these teachers, Boles and Troen (p. 25) write: "The PDS has broadened their horizons beyond the school and exposed them in new and meaningful ways to the world of theory. They have seen their practice reflected back to them through the interns' eyes. As they assume new leadership roles they have deepened their understanding of policy, curriculum, and the value of research to practice."

Leadership looks very different from traditional bureaucratic, hierarchical conceptions that slot individuals into different, limited functions and that place them in superordinate and subordinate relation to one another. Rather than being defined by formal roles or positions, the leadership that

emerges in these settings is more like Sergiovanni's (1987) concept of "cultural leadership"—the "power to accomplish" as opposed to "power over people or events." Leadership is widely diffused and flows from matches that evolve between teachers' expertise and interests with the inventive work that needs to be done, rather than consolidated into a particular position or role that has predefined functions. In PDSs, leadership emerges in organic ways that resemble Howey's (1988) notion of career lattices rather than career ladders—a more dynamic interchange of roles and responsibilities dependent on school purposes and needs.

In this more fluid context, which acknowledges and uses expertise in many ways, teacher knowledge and leadership are recognized as a major resource to the school community, one that has previously gone untapped. A broader conceptualization of "collaborative leadership" enables principals, teachers, and teacher educators to work together in the design of organizational structures that build on their collective knowledge and commitments.

The Learning/Teaching Collaborative (L/TC), for example, is governed by a steering committee composed mainly of teachers, with representatives from college faculty and college and school administration. Every teacher participating in the collaborative sits on one of five governing subcommittees. These subcommittees enable teachers to take lead roles in everything from governing the collaborative's budget, to the organization of professional development activities based on teacher-identified needs, to interviewing and selecting prospective interns in collaboration with college faculty, who will be assigned to L/TC PDS sites. As compared to traditional bureaucratic structures, Boles and Troen (1994, p. 19) note that "the Learning/Teaching Collaborative, with its collective form of leadership assumed by many individuals, looks very different. In this leadership paradigm, teachers develop expertise according to

their individual interests. They continue to feel professionally independent, yet they are part of a working team. No teacher has higher professional status within the Collaborative and a range of roles in leadership is available to all the teachers. Thus the role of teacher leader is reconfigured to be inclusive, rather than exclusive, and is available to significantly more teachers."

Similarly, at Lark Creek Middle School in Washington State, a PDS working with the University of Washington and the Puget Sound Professional Development Center, teacher leadership is enabled by governance and structural changes that use time, expertise, and human resources differently (Grossman, 1994). These changes include the formation of an instructional council responsible for school-based decision making; the reorganization of the staff into interdisciplinary teams; and the placement of all teachers and student teachers on one of six teams, with each team responsible for teaching approximately 100 students. These instructional teams have become increasingly involved in making decisions regarding their work, including scheduling classes, deciding budgetary matters, identifying problems facing the school, and proposing solutions. A committee composed of teachers from Lark Creek and a professor and graduate student from the university makes decisions regarding the implementation of Professional Development Center projects at the school and the use of the budget for preservice and continuing professional development activities and recommends curriculum-related changes to the steering committee. Teachers take on responsibilities once reserved for others in the administrative hierarchy in a variety of ways as part of their expanding roles. Their decisions are based on what is needed to support teaching and learning for students and teachers.

Through information gleaned from case studies of highly developed PDSs, it is becoming clear that a form of teacher leadership is being created that holds the prom-

ise of being more than a set of formal, bounded, titled, and assigned roles within these schools. In these PDSs, teacher leadership is potentially more than a role; it is a *stance*, a mind-set, a way of being, acting, and thinking as a learner within a community of learners, and as a *professional* teacher. Rather than officially assigning teacher leaders to predesigned functions, a process that requires the teacher to fit the designated leadership mold and the school to conform to the organizational chart, PDSs offer the possibility of the school's taking shape around its team as the teachers contribute their individual interests, abilities, and experience to the community of learners and leaders.

Teachers as mentors and teacher educators. Professional development schools provide sites for preparing beginning teachers in ways that integrate their teacher education experience with a structured internship under the guidance of an expert teaching faculty that is both school- and university-based. Because this joint faculty forges a collective vision and a common program for their work and conducts the work as a team rather than as separate components of a fragmented program, teachers at well-functioning PDSs can become full partners in the preparation of the next generation of teachers. In the collaborations between school- and university-based PDS faculty, all partners can develop new visions for teaching and teacher development.

Because effective teaching is context based and must be adapted to individual students, successful teacher preparation must involve not only a foundation of theoretical knowledge but also a rich array of classroom experiences that help teacher candidates integrate their formal knowledge of teaching and learning with the knowledge of adaptive practice that can be gained only by working with the guidance of experienced teachers. As they create this "rub between theory and practice" (Miller & Silvernail, 1994), professional develop-

ment schools have found themselves creating new, hybrid ways of knowing and forms of knowledge that have a special power and energy of their own: knowing through action and reflection as well as by understanding and appreciating the findings of others; knowing through discussing experiences within a collegial group of practitioners; knowing through research conducted by teachers along with researchers that is informed by the diverse experiences of individual students as well the aggregated outcomes codified in larger-scale empirical studies (Darling-Hammond, 1994a).

In the process, teachers take on the roles of knowledge producers and knowledge shapers as well as knowledge users. As one Teachers College, Columbia University, professor described the co-construction of knowledge among PDS participants: "I think that the knowledge that [teachers] have and the knowledge that they can construct with the [student teachers] is part of the knowledge base of teacher education. ... I think what we get in interacting with experienced practitioners are new ways to look at what we're looking at through a research perspective. This is not only useful in terms of our work with prospective teachers, but useful in terms of the way we do our research: the way we interpret our findings; the way we conceive our research questions; what we think are the important agendas to pursue" (Snyder, 1994, p. 122).

At Wells Junior High School, teachers' knowledge is also finding voice in new ways. Miller and Silvernail (1994) suggest that "what is happening at Wells are a series of private epiphanies about conceptions of knowledge and the appropriate role of schools and university faculty for sharing that knowledge" (p. 46). The synergy not only legitimizes teachers' knowledge, it enables teachers to use it in powerful ways beyond their individual classrooms:

Integration of theory and practice goes beyond combining academic course

work and field experiences. In general, teachers' voices have been uninvited, unheard, and devalued in professional discourse about teacher education. The Wells PDS makes teacher voice central to its preservice program and acknowledges the unique perspectives, insights, and wisdom that practicing teachers have accumulated and incorporates these into the preservice program. Through ongoing, daily discussion, story telling, and reflective interaction, experienced teachers talk about the tacit understandings and informal rules of practice that underpin their knowledge of the teaching craft. Through continuous conversation in the context of real schools and classrooms, teacher voice assumes a privileged authority and often challenges the more formal knowledge base that university professors represent. [Pp. 38-39]

As teachers assume leadership in co-constructing knowledge for teacher education, they also create more powerful learning cultures within their schools. At the Pontiac Elementary School, a PDS associated with the University of South Carolina, teachers are equal partners in structuring the experiences of student teachers and interns. For example, education methods courses are jointly designed by school and university faculty and are offered at Pontiac. Berry and Catoe (1994) found that the climate of the school is also changing as teachers' involvement in the education of future educators grows. As teachers assume leadership in connecting many of the PDS experiences to the school's efforts to revise its curriculum, the reforms "are indeed leveraging a learning culture for teachers, administrators, and interns. As a result of their PDS and restructuring efforts, over 70% of the teachers reported that they changed the way they reflect on practice while 61% reported they changed their conception of collegial work. Similarly, over one-half (55%) of the teachers reported that they have changed the way they teach and their conception of what needs to be known in order to teach" (Berry & Catoe, 1994, p. 184).

The same outcomes have occurred as teams of cooperating teachers work with student teachers at Lark Creek Middle School (Grossman, 1994). Members of the teaching team meet monthly with university site supervisors from the teacher education program "to discuss how students are doing in the field, to plan aspects of the seminar or field experiences, and to share information related to supervision and evaluation of preservice teachers" (p. 57). Grossman described teachers' views of the results of this process: "Most teachers felt that in comparison with their own professional preparations, the student teachers at Lark Creek were receiving 'vastly improved' preparation. . . . Working closely with student teachers has helped teachers expand their sense of a teacher's professional role. 'Teachers really do have a responsibility to the profession. That's part of what we need to do. Find the best student teachers we can to replace us/ said one cooperating teacher. Teachers also felt that they were learning from the student teachers: 'I've learned from student teachers different ways to teach things. They're teaching me too,' commented a veteran teacher" (p. 63).

As these comments suggest, the process of teaching new teachers invites more learning, causing the processes of leading and learning to become deeply intertwined and interdependent. At Norwood Elementary in Los Angeles, a professional practice school in collaboration with the University of Southern California School of Education, university and school faculty created an additional avenue for student teacher learning by developing a series of problem-solving clinics for interns, based on common concerns and problems. A teacher noted that this and other responsibilities of the project teachers provided leadership opportunities that stimulated a great deal of learning and development for veterans as well as for their interns: "We have reviewed models of teaching and have seen how to implement them. We have become aware of the value

of peer coaching and the need to foster collegial relationships... The (problem-solving) clinics have had a definite impact on the project teachers, as some of us have helped write cases and lead seminars. This puts a fair amount of pressure on in-service professionals to keep current on educational issues and help identify causes of, and remedies for, poor student achievement and other classroom concerns" (Lemlech, Hertzog-Foliart, & Hackl, 1994, pp. 163-164).

As teachers become mentors and teacher educators, as they assume greater responsibility for the collective profession, they also become more comfortable with the notion that seeking and leading collective improvements in practice are aspects of a professional role. In highly developed PDSs, all teachers in the school participate in establishing a climate and a culture for the preparation of new teachers, taking on a variety of roles in doing so: modeling, advising, coaching, holding seminars, offering assistance. As Berry and Catoe (1994, p. 187) observe of the steady march toward professional leadership in the Pontiac/University of South Carolina PDS:

These teachers are learning to recognize that they need to help enforce standards of practice. As one teacher asserted: "We want to be involved in teacher education, that's what the bottom line is.... I feel like it is so important to us to send out good teachers.... If we are going to get the respect that is due our profession, we have got to take charge and build our profession up." Not only are more Pontiac teachers interested in finding time to see others teach, they are more interested in having someone ... see them teach. And this openness can indeed transform a learning culture and change a school.

Teachers as curriculum developers and decision makers. Professional development schools engaged in rethinking curriculum, teaching, and learning create leadership roles for teachers as they redefine teaching from a formulaic exercise in which teachers implement curriculum designed by others

to a creative act that is responsive to students' experiences, talents, and needs. In schools that are restructuring to take account of new understandings about how students actually learn, students are no longer seen as raw materials or empty vessels; teachers are not merely conduits; and the process of teaching and learning is not conceived as one of simply pouring knowledge into students' heads. Rather, knowledge is viewed as interactively constructed by learners and teachers who function in a reciprocal relationship within a community of learners. Students' learning is built upon their prior knowledge, experiences, and beliefs, with the teacher creating bridges between these very different starting points and common curriculum goals. Thus, curriculum is always in development, and adaptive teaching strategies are always being discussed and invented. A constructivist approach to teaching and learning means that teachers are curriculum developers and assessors who continually make decisions about varied content and methods.

The case studies illustrate how teacher-leaders in PDSs that are striving to develop and model this dynamic, interactive view of teaching are building and using content knowledge and pedagogical knowledge in ways that support the growth and development of diverse learners with multiple learning styles, intelligences, family and cultural backgrounds, and life experiences. They develop curriculum with and for their students and the prospective teachers with whom they work. In connection with this reshaping of curriculum and teaching, the question of assessment of student learning also comes to the fore, since teacher and student learning are inextricably connected. Richer forms of assessment that enable teachers to understand *how* their students learn as well as *what* they know enable teachers to be more effective. Thus, as teachers develop ways to learn more about their students' thinking and performance, they also become assessment developers,

observers, and documenters of learning. They talk about students' work and discuss what "good performance" means and how to support its development. They take leadership in developing curriculum and assessments and in beginning to define shared standards of practice. New teachers learn how to become professionals whose scope of expertise and decision making in these spheres is broader than it has ever been before. They grow into leadership roles from the very beginning of their careers.

The stimulus to invention is powerful. Snyder (1994), for example, found that the professional growth of experienced teachers at P.S. 87 and I.S. 44 in New York was stimulated by creating formats for collaboration, attesting to the fact that "all collaborating educators, no matter their depth of experience or whether school or university based, reported creating totally new curriculum units—some for the first time in years" (p. 107). Teachers at the Learning/Teaching Collaborative in Massachusetts develop curriculum together, seeking to "reimagine curriculum" and "reconfigure the way kids learn," with the resources of the college, the assistance of their interns and their peers, and the "alternative professional time" that is allocated to them during the school day (Boles & Troen, 1994). At Lark Creek Middle School, collaborative curriculum development has become a means for developing collective understandings and practices. Grossman (1994) notes that "perhaps what is most striking about Lark Creek is the widespread use of a common language with which members talked about the activities of teaching, learning, and the process of reform" (p. 70). She writes, "A visit to Lark Creek reinforces the image of a collegial school. . . . Visitors might find teams of teachers working together to solve school problems, or walk in on a science teacher conferring with a science teacher from another PSPDC site about a new science curriculum" (p. 61).

At the Norwood-USC professional practice school in Los Angeles, teachers moved

from tentatively engaging curriculum issues to taking initiative with respect to student assessment and staff development. Lemlech and colleagues (1994) describe the evolution:

As the PPS teachers discussed their instructional goals at the initial goal setting session, we were reassured that both school and university shared many of the same beliefs.... Project teachers began to work in partner teams to plan thematic units after first requesting help from the university participants on how to develop teaching units. [P. 161]

As the project progressed, individual members assumed leadership to discuss the integration of assessment with teaching and learning. At a recent all-day meeting, PPS teachers led the session focused on authentic assessment. They prepared exhibits and engaged PPS members in discussion of ways to have children demonstrate what they are learning. This served as an example of teachers taking charge of staff development time, making key decisions about what they want to study. [P. 165]

Kerchner (1993) found that at Byck Elementary School, a PDS associated with the Gheens Academy in Louisville, Kentucky, the participative management structure has given rise to a score of teacher initiatives in the classrooms, including the creation of a four-teacher, cross-age team to encourage students from kindergarten to grade 5 to work and learn together, and interdisciplinary teams at the third and fourth grades. Also, two first-grade teachers and their assistants at Byck knocked down the wall between their classrooms, creating an open-space learning environment for small homogeneous groups. Kerchner observes: "None of these programs is unique. But each is a local invention—a Tittle try"—that gives teachers ownership of an academic enterprise. Not all the programs follow the same pedagogical assumptions. . . . The common thread among the programs is that they seem to elicit high levels of commit-

ment from the teachers who originated and operate them" (p. 36).

McCarthy and Peterson (1993) show how this process of gradual assumption of professional initiative unfolds in their case study of two elementary teachers in a restructured professional development school. One of the teachers, Julie Brandt, who was a designated team leader of four teachers and 120 students, took on leadership of a process of collective change as she was herself supported by the professional networks surrounding the PDS and by the shared decision-making process adopted by the PDS:

Brandt attributed the changes in her classroom practice to the restructuring efforts, her work with . . . the liaison from the professional development center, and her other connections at the center. Brandt went to the center for materials, for inservices, and to talk to teachers from other schools. Her thinking and practice were also influenced by new ideas brought into her classroom by student teachers from the university who were placed in the school and supervised by [the PDS liaison]. In addition, Brandt reported that her principal and colleagues were supportive of her innovations. . . . Participatory management in which teachers were involved in making decisions helped her feel free to try out new ideas. [Pp. 140, 142]

Many analysts of restructuring schools have noted that, as in other organizations, as teachers become increasingly involved in establishing a sense of direction and purpose for their school they have a greater tendency to feel responsible for their work. As Duke (1994) notes, "The likelihood that teachers will embrace collective accountability for student learning is directly related to the extent to which teachers influence the formation of policies related to curriculum, instruction, evaluation, and other professional aspects of schooling" (p. 26).

Thus, engagement in decision making supports teachers in taking professional initiative in the areas of curriculum and teaching and in accepting collective forms of

professional accountability that reinforce shared standards of practice. All of these interrelated components of a professional role encourage teachers to take on more leadership and greater responsibility for improving teaching, schooling, and student learning.

Teachers as problem solvers and change agents. Because professional development schools explicitly aim to restructure teacher education and schooling simultaneously, teachers and teacher educators exert leadership as change agents for the profession as a whole as well as for their local schools. This process is often triggered as teachers inquire into their own schools and how they work for students. At Louisville's Fairdale High School, teachers' research coupled with a shared decision-making structure for problem solving stimulated a major change process:

As part of a self-study, ten teachers followed ten children through a school day. When it was over, teachers said things like, "It was boring," or, "You know, this isn't a very humane place to be." Another teacher reported that no adult had spoken to the child she was following the entire day. . . . Another activity that brought teachers together was reading about education and teaching.... Even before participative management was initiated at Fairdale, the teachers started changing things. In 1987 a steering committee consisting of elected teachers, students, administrators, support staff, and parents adopted operating procedures and set up task forces to study, design, and implement program changes generated from staff brainstorming sessions (Fairdale High School, 1990). The next year, Fairdale joined the Coalition of Essential Schools. Changes in pedagogy, use of time, and student testing have flowed from incorporating coalition principles into school practice.... "Make no mistake about it," [the principal] said, "we are into culture building here. We are building a community culture outside and a professional culture inside." [Kerchner, 1993, p. 39]

Whitford (1994), who also studied Fairdale, adds that the principal has encouraged

faculty invention and experimentation, including the formation of interdisciplinary teams, making scheduling changes, participating in hiring and budget decisions, and taking part in the University of Louisville's teacher preparation program. A key touchstone is that problem solving starts from a focus on learners and their needs. The principal's guiding question in relation to these aspects of teacher leadership is, "Is it good for students?" One of Fairdale's teachers comments, "One of the best things about being here is getting to try things you've always wanted to try. We inspire each other to figure out how to work best with kids" (p. 80).

Shared decision making in these PDSs supports an orientation toward schoolwide problem solving and change. At Lassiter Middle School, another PDS associated with the University of Louisville, "One effect of participative management has been to create a situation in which teachers perceive how the entire school works. 'It makes me question more than it used to,' said one teacher. 'We began to realize how connected things are ... how setting up multiage teams affects the flow of students into other grade-level teams. It forces you to get involved in the workings of the school'" (Kerchner, 1993, p. 36).

PDSs tend to bring a problem-posing and problem-solving frame to the practice of teaching as educators inquire together about what is working and what might work better. At Wells Junior High, for example, "The whole notion of staff development was turned on its head. The emphasis shifted from outside consultants to in-house experts. Collaborative learning groups replaced the traditional lecture/demonstration format. Problem posing and problem solving supplanted the recipes and prescriptions for effective schools that teachers had heard for years and never managed to implement... (The staff) resonated with the possibilities and connected their practical knowledge of children and classrooms with the professional re-

search... We began to see ourselves as problem solvers and we got a sense that if it doesn't work, we can always retool and change" (Miller & Silvernail, 1994, p. 31).

As faculties become empowered to pose and solve problems, they assume leadership for change from within rather than looking upward or outward for leadership. The process is often a creative one. As change is sought within classrooms and schools, some teachers take the initiative to look further, to look for opportunities to make needed changes at the district level and beyond. At Lark Creek Middle School, "Teachers believed that their colleagues have become 'very aware of what's going on in education.' One teacher commented that she had grown immensely through the opportunity to look at education with different eyes," while others spoke positively of the constant flux of new ideas entering the building. A smaller group of teachers also spoke of their roles beyond the classroom and their desire to effect change in their district" (Grossman, 1994, p. 61).

Thus, teacher leadership emerges and grows rather than being appointed or assigned. It becomes the product of a fuller, more wide-ranging professional role. As suggested above and as described more fully below, a major dimension of that role is inquiry. As centers of inquiry, PDSs develop this aspect of teacher leadership perhaps more fully than do other kinds of restructuring schools.

Teachers as researchers. Murray (1993) noted that a PDS is not a demonstration school, it is an inquiry school. This idea is echoed in the fact that, for example, the core beliefs of Lark Creek Middle School include the tenet that "central to the life of our PDC are dialogue and inquiry" (Grossman, 1994, p. 55). In a variety of ways, professional development schools encourage teachers to probe their practice both individually and collectively. Classroom-based as well as schoolwide inquiry occurs as teachers participate in structured studies, pursue their curiosity where it leads them, help interns

undertake case studies, and engage in action research. The PDSs provide a number of different models for how schools can create the necessary conditions for teacher research.

Wells Junior High School is in a district that, with the support of the superintendent, takes seriously the notion that classroom teachers should lead school change; that teachers should be committed to the practice of continual inquiry, using the knowledge from research and theory to examine both their instruction and the structure within which they work in order to continually improve the educational program for their students (Miller & Silvernail, 1994). The PDS there started with staff development structured so that teachers could examine research for its relevance to local problems. Over time teachers also began to develop their own research:

"Using the knowledge" became the starting point for developing a new view of staff development at Wells. The school staff redefined its use of the district's allocated workshop days. Rather than providing time for formal presentations by outside consultants, the days were used for teachers' review of research and for critical discussion and reflection. For example, on one such day teachers spent 2 hours individually reading research about grouping. During another day, they worked in cooperative learning groups to share their perceptions on the research they had read. On yet another day, the staff met to engage in the process of consensus building with the goal of reaching a decision about grouping practices in the school. [P. 30]

At Pontiac Elementary in South Carolina, a teacher-researcher course was designed by Pontiac elementary faculty members and a university professor. The course is "designed to work with individuals and small groups and ... to address the needs teachers have regarding the investigation of curricular approaches and their effects" (Berry & Catoe, 1994, p. 186). At the Learning/Teaching Collaborative teachers have

created a research group that supports their inquiries into problems of classroom practice. As one explained, "I'm particularly interested in how kids collaborate in their writing, who brings what to the collaborative process, whether collaboration allows kids to take more or less risks with their writing.... And it's changed my philosophy because not only do we [the teacher research group] do classroom-based research, we also do a lot of reading in the research on linguistics. So I've read a lot of Vygotsky and Bakhtin. It's been incredibly interesting" (Boles & Troen, 1994, p. 16).

As another L/TC colleague noted, research provides another way for teachers to look at students, to understand how they function. In addition, some PDS teachers are extending their roles beyond classroom inquiry to enrich the broader field of research with teachers' perspectives. According to one L/TC teacher, "I would say my role as teacher researcher is definitely in the theater of leadership in the sense that I'm committed to developing a voice for the teacher researcher in the context of the larger research world, in making that a viable voice that's different, yet heard in that context" (Boles & Troen, 1994, p. 17).

Lytle and Cochran-Smith (1994) argue that the teacher's voice can inform a broader reform agenda and can sensitize academic research while bringing it greater utility and legitimacy in the eyes of teachers:

Limiting the official knowledge base for teaching to what university academics have chosen to study and write about contributes to a number of problems, including discontinuity between what is taught in universities and what is taught in classrooms, teachers' ambivalence about the claims of academic research, and a general lack of information about classroom life from the inside. It is widely agreed that instructional reform depends upon tapping into, and supporting, teachers' potential to be thoughtful and deliberate architects of teaching and learning in their own classrooms, and is contingent upon members of the teach-

ing profession developing their own systematic and intentional ways to scrutinize and improve their practices. [Pp. 45-46]

Levine (1992) asserts that in order for teachers to learn to cope with the uncertainty of their work, professional practice must be viewed not merely as craftlike, learned through apprenticeship, teaching by rule of thumb and imitation, but rather as involving reflection, experimentation, and inquiry. Lieberman and Miller (1992, p. 108) add, "In a school where teachers assume leadership in curriculum and instruction and where reflective action replaces routinized practice, providing opportunities and time for disciplined inquiry into teaching and learning becomes crucial. Unlike traditional school settings, professional practice schools are places where teachers, sometimes working with university scholars and sometimes working alone, do research on, by, and for themselves. Professional practice schools must provide the conditions that allow teachers to develop the skills, perspective, and confidence to do their own systematic investigation."

One can argue that, in fact, the professional teacher is one who learns from teaching rather than one who has learned how to teach, since the myriad puzzles posed by individually unique students always demand that teachers study their students and examine how different ones respond to different learning opportunities. Since "preservice teacher education can only be an introduction to this career-long process of learning from teaching" (Snyder, 1994, p. 108), what it must impart to prospective teachers is the capacity to inquire sensitively and systematically into the nature of learning and the effects of their actions on learners. Understanding research about teaching enables teachers to learn from their own ongoing research on teaching. John Dewey (1929, pp. 20-21) put it this way: "Command of scientific methods and systematized subject matter liberates individuals; it enables them to see new prob-

lems, devise new procedures, and in general, makes for diversification rather than for set uniformity (12). This knowledge and understanding render (the teacher's) practice more intelligent, more flexible, and better adapted to deal effectively with concrete phenomena of practice. . . . Seeing more relations he sees more possibilities, more opportunities. His ability to judge being enriched, he has a wider range of alternatives to select from in dealing with individual situations."

Houston (1992) notes that if teachers investigate the effects of their teaching on students' learning they come to understand teaching "to be an inherently problematic endeavor, rather than a highly routinized activity" (p. 126). Engaging preservice and in-service teachers in active inquiry in PDSs is one route to changing teaching practice and curriculum on a profession-wide scale, by enabling teachers to engage in the kind of ongoing inquiry and problem solving needed for learner-centered teaching and in-depth understanding rather than mere coverage of subject matter.

The traditional view of teaching assumes a linear relationship between knowledge and practice, in which knowledge precedes practice and the practitioner's role is limited to being either a user of research or the subject of it (Levine, 1992). Going beyond such a view, mature PDSs recognize the reciprocal, interactive nature of knowledge building. In these settings, knowledge is not viewed as a static entity residing in the upper echelons of the school bureaucracy, to be packaged in guidelines and directives and handed down from on high. And teachers are no longer seen as isolated transmitters of that knowledge to students. Instead, teachers' collaborative work with students, fellow teachers, preservice teachers, and university faculty pushes them to explore and reimagine their own roles in the collective construction of knowledge about the learning and teaching process. As they learn and build knowledge jointly, they also transform practice as collective use of

shared knowledge affects all participants, altering the shape of the school structure and extending the knowledge base of the profession itself.

Challenges and Possibilities for Egalitarian Teacher Leadership

This vision challenges the hierarchical and positional conceptions of leadership current school structures embody. The PDSs pose an alternative to the vertical system of advancement, which identifies leaders as those holding formal occupational roles "above" those of teachers (McLaughlin & Yee, 1988). Boles and Troen (1994) note that "teachers in PDSs are *expected* to exert influence beyond their classrooms and play important roles in the larger arena of the school, school district, and professional community" (p. 1). As teachers' expertise is recognized, their roles expanded, and their responsibilities increased, they not only become more powerful leaders, they become more powerful learners—and modelers of learning. As Lieberman, Saxl, and Miles (1988, p. 164) note, "Teacher-leaders ... are not only making learning possible for others but, in important ways, are learning a great deal themselves. Stepping out of the confines of the classroom forces these teacher-leaders to forge a new identity in the school, think differently about their colleagues, change their style of work in a school, and find new ways to organize staff participation.... It is an extremely complicated process, one that is intellectually challenging and exciting as well as stressful and problematic."

These examples suggest that, in contrast to bureaucratic forms of teacher leadership that simply create a few more slots in an already isolating and compartmentalized structure, PDSs—like other restructuring schools—can offer organic forms of professional leadership that develop intrinsically in connection with systemic organizational change within a school. In the course of restructuring, opportunities to collaborate and take initiative are available at every

turn. The specific teacher leadership responsibilities that evolve are not prescribed a priori but are varied, flexible, and idiosyncratic to individual school teams and their distinctive situations (Devaney, 1987, cited in Smylie & Denny, 1990). Embedded in this idea of teacher leadership is a core commitment to teacher decision making and professional discretion and a belief that "the most desirable form of leadership, in fact, actually may be that which is not limited to particular roles, but instead derives from expertise and experience" (Duke, 1994, p. 25). As Boles and Troen (1994, p. 24) report of the Learning/Teaching Collaborative, "The PDS has established a new sub-culture in the schools that supports risk-taking, values leadership, and simultaneously maintains the norms of equality and inclusion among teachers. The PDS enables teachers to circumvent the more traditional school culture that does not reward, and often obstructs, risk-taking and collaboration."

Similarly, at I.S. 44 in New York City, the PDS has developed a climate within which leadership opportunities are widely available within a new definition of the professional role that focuses on professional responsibility for finding ways to succeed with students: "It is a context within which teachers can make new meanings about children and schooling, and create new ways to foster important learning experiences for children. Rules are few, but decisions are many. The framing context is the professional model of learner-centered teaching, of personal and collective initiative, responsibility, and accountability, a model at odds with the bureaucratic model of external rules, prescriptions, and evaluation" (Lythcott & Schwartz, 1994, p. 127).

In these contexts, the greatest support for teacher leadership is not a formal title but restructured time and relationships that enable teachers to take on the leadership tasks in which they are ready to engage. A useful model may be that of the Learning/Teaching Collaborative where participating

teachers are allocated time instead of new titles. Just as teachers who work in more professionally structured schools in many European and Asian countries use half or more of their time in enacting an expanded professional role—engaging in collegial planning and curriculum development, mentoring, and other tasks that are considered "leadership functions" in more bureaucratized settings (Darling-Hammond, 1990)—teachers in the L/TC are given a significant amount of "alternative professional teaching time" to be used at their discretion. New role relationships are made possible by the PDS collaborative governance structures, the commitments of L/TC schools to change, and the explicit mission of the partnerships with Wheelock and Simmons Colleges. The very different configuration of teaching time and responsibilities in other countries is a function of radically different organizational and personnel structures that invest in many more teachers and many fewer administrators and other adjunct personnel in schools (Darling-Hammond & Sclan, in press). In the long run, such transformations of time and teaching roles will require fundamental restructuring of school spending, staffing, and organization rather than the dispensation of special privileges to a few.

These possibilities for teacher leadership have not emerged overnight and will not be expanded without struggle. The bounds and borders among the leadership forms described here vary from one professional development school to another, and each has had obstacles and setbacks along the way (Darling-Hammond, 1994b). Daly Lewis (1992) suggests that there is a developmental process through which school staffs work in transforming their schools into successful PDSs and that this process involves moving along a continuum from rigid, top-down structures to more collegial, teacher-participatory approaches to staff development, decision making, and leadership and vision for a school. In the course of this development, what may be most im-

portant is that teachers have access to images of what is possible and an openness to seize opportunities for participation, inquiry, and engagement in the continual rethinking of teaching and learning. As teachers grab hold of those emerging, unexpected opportunities, the possibilities for leadership may grow and, with them, the possibilities for a profession of teaching committed to ongoing inquiry and invention in support of student success.

References

- American Association of Colleges for Teacher Education. (1992). *Professional development schools: A directory of projects in the United States*. Washington, DC: Author.
- Berry, B., & Catoe, S. (1994). Creating professional development schools: Policy and practice in South Carolina's PDS initiatives. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 176-202). New York: Teachers College Press.
- Boles, K., & Troen, V. (1994, April). *Teacher leadership in a professional development school*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Daly Lewis, M. (1992, April). *Professional development schools: Conditions for readiness*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Darling-Hammond, L. (1990). Teacher professionalism: Why and how. In A. Lieberman (Ed.), *Schools as collaborative cultures: Creating the future now* (pp. 25-50). New York: Falmer.
- Darling-Hammond, L. (1994a). Developing professional development schools: Early lessons, challenge, and promise. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 1-27). New York: Teachers College Press.
- Darling-Hammond, L. (Ed.). (1994b). *Professional development schools: Schools for developing a profession*. New York: Teachers College Press.
- Darling-Hammond, L., & Sclan, E. (in press). Who teaches and why: Dilemmas of building a profession for 21st century schools. In J.

- Sikula, T.J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education*. New York: Macmillan.
- Devaney, K. (1987). *The lead teacher: Ways to begin*. Paper prepared for the Task Force on Teaching as a Profession, Carnegie Forum on Education and the Economy. Berkeley, CA: Author.
- Dewey, J. (1929). *The sources of a science of education*. New York: Horace Liveright.
- Duffy, G. G. (1994). Professional development schools and the disempowerment of teachers and professors. *Phi Delta Kappan*, 75(8), 596-600.
- Duke, D. L. (1994, April). *Drift, detachment, and the need for teacher leadership*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Goodlad, J. I. (1990). *Teachers for our nation's schools*. San Francisco: Jossey-Bass.
- Grossman, P. L. (1994). In pursuit of a dual agenda: Creating a middle level professional development school. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 50-73). New York: Teachers College Press.
- Holmes Group. (1986). *Tomorrow's teachers*. East Lansing, MI: Author.
- Holmes Group. (1990). *Tomorrow's schools*. East Lansing, MI: Author.
- Houston, H. M. (1992). Institutional standard-setting in professional practice schools: Initial considerations. In M. Levine (Ed.), *Professional practice schools: Linking teacher education and school reform* (pp. 124-132). New York: Teachers College Press.
- Howey, K. R. (1988). Why teacher leadership? *Journal of Teacher Education*, 39, 28-31.
- Kerchner, C. T. (1993). Louisville: Professional development drives a decade of school reform. In C. T. Kerchner & J. E. Koppich (Eds.), *A union of professionals: Labor relations and educational reform* (pp. 25-42). New York: Teachers College Press.
- Lemlech, J. K., Hertzog-Foliat, H., & Hackl, A. (1994). The Los Angeles professional practice school: A study of mutual impact. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 156-175). New York: Teachers College Press.
- Levine, M. (Ed.). (1992). *Professional practice schools: Linking teacher education and school reform*. New York: Teachers College Press.
- Lieberman, A., & Miller, L. (1992). Teacher development in professional practice schools. In M. Levine (Ed.), *Professional practice schools: Linking teacher education and school reform* (pp. 105-123). New York: Teachers College Press.
- Lieberman, A., Saxl, E. R., & Miles, M. B. (1988). Teacher leadership: Ideology and practice. In A. Lieberman (Ed.), *Building a professional culture in schools* (pp. 148-166). New York: Teachers College Press.
- Little, J. W. (1988). Assessing the prospects for teacher leadership. In A. Lieberman (Ed.), *Building a professional culture in schools* (pp. 78-106). New York: Teachers College Press.
- Lythcott, J., & Schwartz, F. (1994). Professional development in action: An idea with visiting rights. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 126-155). New York: Teachers College Press.
- Lytle, S. L., & Cochran-Smith, M. (1994). Inquiry, knowledge, and practice. In S. Hollingsworth & H. Sockett (Eds.), *Teacher research and educational reform* (pp. 22-51). Ninety-Third Yearbook of the National Society for the Study of Education. Chicago: University of Illinois Press.
- McCarthy, S. J., & Peterson, P. L. (1993). Creating classroom practice within the context of a restructured professional development school. In D. K. Cohen, M. W. McLaughlin, & J. E. Talbert (Eds.), *Teaching for understanding: Challenges for policy and practice* (pp. 130-163). San Francisco: Jossey-Bass.
- McLaughlin, M. W., & Yee, S. M. (1988). School as a place to have a career. In A. Lieberman (Ed.), *Building a professional culture in schools* (pp. 23-44). New York: Teachers College Press.
- Miller, L., & Silvernail, D. L. (1994). Wells Junior High School: Evolution of a professional development school. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 28-49). New York: Teachers College Press.
- Murray, F. B. (1993). "All or none" criteria for professional development schools. *Educational Policy*, 7, 61-73.
- National Center for Restructuring Education, Schools, and Teaching. (1993). Vision statement: Professional development schools network. *PDS Network News*, 1, 3-6.
- Sergiovanni, T. (1987). The theoretical basis of cultural leadership. In L. T. Sheive & M. B. Schoenheit (Eds.), *Leadership: Examining the elusive* (pp. 116-130). Alexandria, VA: Association for Supervision and Curriculum Development.
- Smylie, M. A. (1994). Redesigning teachers' work: Connections to the classroom. In L. Darling-Hammond (Ed.), *Review of research in education* (Vol. 20, pp. 129-177). Wash-

- ington, DC: American Educational Research Association.
- Smylie, M. A., & Denny, J. W. (1990). Teacher leadership: Tensions and ambiguities in organizational perspective. *Educational Administration Quarterly*, 26, 235-259.
- Snyder, J. (1994). Perils and potentials: A tale of two professional development schools. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 98-125). New York: Teachers College Press.
- Teitel, L. (1992). The impact of professional development school partnerships on the preparation of teachers. *Teaching Education*, 4, 79-85.
- Tyack, D. B. (1974). *The one best system: A history of American urban education*. Cambridge, MA: Harvard University Press.
- Whitford, B. L. (1994). Permission, persistence, and resistance: Linking high school restructuring with teacher education reform. In L. Darling-Hammond (Ed.), *Professional development schools: Schools for developing a profession* (pp. 74-97). New York: Teachers College Press.

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