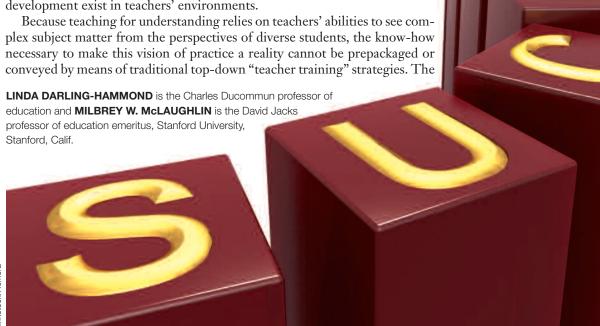
# Policies That Support Professional Development in an Era of Reform

Policies must keep pace with new ideas about what, when, and how teachers learn and must focus on developing schools' and teachers' capacities to be responsible for student learning.

#### By Linda Darling-Hammond and Milbrey W. McLaughlin

The vision of practice that underlies the nation's reform agenda requires most teachers to rethink their own practice, to construct new classroom roles and expectations about student outcomes, and to teach in ways they have never taught before — and probably never experienced as students (Nelson and Hammerman 1996). The success of this agenda ultimately turns on teachers' success in accomplishing the serious and difficult tasks of *learning* the skills and perspectives assumed by new visions of practice and *unlearning* the practices and beliefs about students and instruction that have dominated their professional lives to date. Yet few occasions and little support for such professional development exist in teachers' environments.





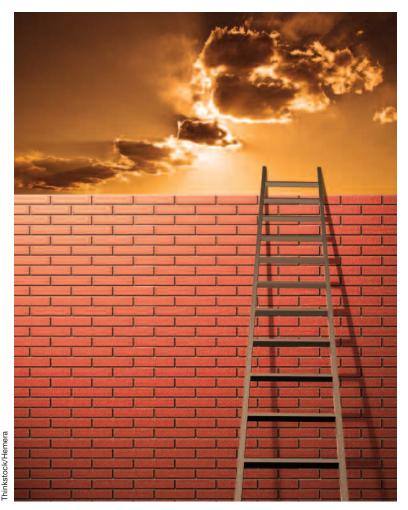
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policy problem for professional development in this era of reform extends beyond mere support for teachers' acquisition of new skills or knowledge. Professional development today also means providing occasions for teachers to reflect critically on their practice and to fashion new knowledge and beliefs about content, pedagogy, and learners (Nelson and Hammerman 1996; Prawat 1992).

Effective professional development involves teachers both as learners and as teachers and allows them to struggle with the uncertainties that accompany each role.



Beginning with preservice education and continuing throughout a teacher's career, teacher development must focus on deepening teachers' understanding of the processes of teaching and learning and of the students they teach. Effective professional development involves teachers both as learners and as teachers and allows them to struggle with the uncertainties that accompany each role. It has a number of characteristics.

- It must engage teachers in concrete tasks of teaching, assessment, observation, and reflection that illuminate the processes of learning and development.
- It must be grounded in inquiry, reflection, and experimentation that are participant-driven.
- It must be collaborative, involving a sharing of knowledge among educators and a focus on teachers' communities of practice rather than on individual teachers.
- It must be connected to and derived from teachers' work with their students.
- It must be sustained, ongoing, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice.
- It must be connected to other aspects of school change.

Professional development of this kind signals a departure from old norms and models of "preservice" or "inservice" training. It creates new images of what, when, and how teachers learn, and these new images require a corresponding shift from policies that seek to control or direct the work of teachers to strategies intended to *develop schools' and teachers' capacity* to be responsible for student learning. Capacity-building policies view knowledge as constructed by and with practitioners for use in their own contexts, rather than as something conveyed by policy makers as a single solution for top-down implementation.

Though the outlines of a new paradigm for professional development policy are emerging (Cohn, McLaughlin, and Talbert 1993; Darling-Hammond 1993), the hard work of developing concrete exemplars of the policies and practices that model "topdown support for bottom-up reform" has only just begun. The changed curriculum and pedagogy of professional development will require new policies that foster new structures and institutional arrangements for teachers' learning. At the same time, we will need to undertake a strategic assessment of existing policies to determine to what degree they are compatible with the vision of learning as constructed by teachers and students and with a vision of professional development as a lifelong, inquiry-based, and collegial activity (Lieberman 1995).

Both broad policy responses are essential. New approaches to the professional education of teachers are needed, and they require new structures and supports. New initiatives cannot by themselves promote meaningful or long-term change in teachers' practices if they are embedded in a policy structure that is at odds with the visions of student and teacher learning that reforms seek to bring alive. In other

words, both new wine and old wine need new bottles, or else incentives and supports for teacher development will be counterproductive or nonexistent.

In this article, we look first at the new institutional forms that support teachers' professional growth in ways consistent with teaching and learning for understanding. We then look at the ways in which existing arrangements can be rethought or redesigned to support both reformers' visions of practice and teachers' professional growth. Finally, we consider aspects of the larger education policy context that foster or impede teachers' incentives and ability to acquire new knowledge, skills, and conceptions of practice.

## NEW STRUCTURES AND INSTITUTIONAL ARRANGEMENTS

Efforts to redesign education ultimately require rethinking teachers' preparation and professional development. New course mandates, curriculum guidelines, tests, or texts cannot produce greater student learning and understanding without investments in opportunities that give teachers access to knowledge about the nature of learning, development, and performance in different domains. In addition, teachers need firsthand opportunities to integrate theory with classroom practice.

Teachers learn by doing, reading, and reflecting (just as students do); by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see. This kind of learning enables teachers to make the leap from theory to accomplished practice. In addition to a powerful base of theoretical knowledge, such learning requires settings that support teacher inquiry and collaboration and strategies grounded in teachers' questions and concerns. To understand deeply, teachers must learn about, see, and experience successful learning-centered and learner-centered teaching practices.

Sustained change in teachers' learning opportunities and practices will require sustained investment in the infrastructure of reform. This means investment in the development of the institutions and environmental supports that will promote the spread of ideas and shared learning about how change can be attempted and sustained.

#### **NEW FORMS FOR TEACHER PREPARATION**

A growing number of teacher education programs are inventing new structures for preservice teacher education that bring together all of the learning strands described above into new institutional arrangements called the Professional Development School (PDS) (Lieberman and Miller 1990; Darling-Hammond 1994; Sykes 1985). Since the late 1980s,

more than 200 PDSs have been created through the collaborative efforts that simultaneously restructure schools and colleges of education. The most forward-looking of these PDSs are preparing prospective and beginning teachers in settings connected to major school reform networks, such as the Coalition of Essential Schools and the Comer School Development program. Those networks engage the schools and teachers in inquiry that supports their work and learning.

PDSs create settings in which novices enter professional practice by working with expert practitioners while veteran teachers renew their own professional development as they assume roles as mentors, university adjuncts, and teacher leaders. Professional development schools also provide serious venues for developing teaching knowledge by enabling practice-based and practice-sensitive research to be carried out collaboratively by teachers, teacher educators, and researchers (Cochran-Smith and Lytle 1996). PDSs enable teachers to become sources of knowledge for one another and to learn the important roles of "colleague" and "learner."

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Some reform models, such as those proposed by the Holmes Group (1986), the Carnegie Forum on Education and the Economy (Task Force 1986), and the National Board for Professional Teaching Standards (1991), call for all prospective teachers to do their student teaching and a more intensive internship in a PDS. Ideally, many of these schools would be located in central cities where the demand for teachers is high and the need for reinvented schools is great. In these locales they would serve two purposes: offering excellent education for central-city students and providing opportunities for prospective teachers to learn to teach diverse learners effectively.

Despite the prestigious support for PDSs, significant policy supports and changes will be required if PDSs are to take root. States must acknowledge that PDSs are part of the infrastructure of a strong education system, and funding for PDSs must be provided through basic aid allocations, just as teaching hospitals receive formula adjustments to acknowledge the special mission they perform.

The concept of the PDS will also have to become part of the licensing structure for entry into teaching and be taken into account in the accreditation of teacher education institutions. These policy changes are under discussion, as states increasingly envision internships as part of teacher preparation and as the National Council on Accreditation of Teacher Education (NCATE) develops standards for the clinical preparation of teachers. Some states, including Minnesota and Michigan, are already considering ways to incorporate PDS-based internships in the initial preparation and licensing of teachers and have even funded pilot programs. However, states undertaking such a reexamination of credentialing and preparation structures are still in the minority, and PDSs remain outside the mainstream teacher education policy structure.

## Teachers individually cannot reconceive their practice and the culture of their workplace.



Teachers prepared in PDSs will have a learnercentered foundation on which to build their subsequent practice. They will also have an appreciation for the fact that learning about teaching is a lifelong process. However, sustaining these attitudes, roles, and practices in the classroom will require other structures and supports, both outside and inside school.

## NEW INSTITUTIONAL ARRANGEMENTS FOR PROFESSIONAL DEVELOPMENT

To create new structures for individual and organizational learning, the usual notions of inservice training or dissemination must be replaced by possibilities for knowledge sharing anchored in problems of practice. To serve teachers' needs, professional development must embrace a range of opportunities that allow teachers to share what they know and what they want to learn and to connect their learning to the contexts of their teaching. Professional development activities must allow teachers to engage actively in cooperative experiences that are sustained over time and to reflect on the process as well as on the content of what they are learning.

Structures that break down isolation, that empower teachers with professional tasks, and that provide arenas for thinking through standards of practice are central to this kind of professional growth. Opportunities for teachers' learning exist inside and outside schools. They range from professional organizations and standards boards that have more formal roles in the policy structure, to "critical friend" relationships, to many forms of more collaborative professional relationships both outside and within schools.

## NEW STRUCTURES AND OPPORTUNITIES OUTSIDE SCHOOL

A powerful form of teacher learning comes from belonging to professional communities that extend beyond classrooms and school buildings (Talbert and McLaughlin 1994; Lieberman 1994). These communities can be organized across subject-matter lines, around significant pedagogical issues, or in support of particular school reforms. They legitimate dialogue and support the risk taking that is part of any process of significant change. Examples of such communities include the following.

- School/university collaborations engaged in curriculum development, change efforts, or research. When such relationships emerge as true partnerships, they can create new, more powerful kinds of knowledge about teaching and schooling, as the "rub between theory and practice" produces more practical, contextualized theory and more theoretically grounded, broadly informed practice (Miller and O'Shea 1996; Dalton and Moir 1996).
- Teacher-to-teacher and school-to-school networks. These networks provide "critical friends" to exam-

ine and reflect on teaching and opportunities to share experiences associated with efforts to develop new practices or structures (Jamentz 1996; Szabo 1996). Such networks demonstrate that help helps. They are powerful learning tools because they engage people in collective work on authentic problems that emerge out of their own efforts, allowing them to get beyond the dynamic of their own schools and classrooms and to come face to face with other people and other possibilities (Lieberman and McLaughlin 1996).

- Partnerships with neighborhood-based youth organizations. These include club programs, theater groups, literacy projects, museums, or sports groups that provide teachers with important information about their students' homes and neighborhoods, insight into students' nonschool interests and accomplishments, and opportunities for coordination between school and youth organization activities (Heath and McLaughlin 1994; Tellez and Cohen 1996).
- Teacher involvement in district, regional, or national activities. These activities include task forces, study groups, and standard-setting bodies engaged in revising curriculum frameworks, assessing teaching or school practices, or developing standards. Among the more prominent examples are the School Quality Review being piloted in New York and California and the work on curriculum and teaching standards being conducted by the National Council of Teachers of Mathematics. Such activities create new lenses for examining practice while building the norms of the profession. Similarly, teachers who have engaged in powerful forms of teacher assessment, such as the yearlong reflection and documentation it takes to build a portfolio for the National Board for Professional Teaching Standards, claim that they have learned more through this process than in any other staff development activity during their entire careers (NBPTS 1991).

These strategies create new communities of practice within and across levels of the policy system. At the same time they involve new actors and new agencies in teachers' learning and growth. They also depart from traditional notions of "institutionalization" and institutional relationships that assume teaching is shaped and structured primarily by school systems. These extra-school structures and supports more broadly represent the profession and suggest the kind of partnerships that are possible on behalf of children.

Policies that support extra-school learning communities. While some of the structures we have been discussing take on institutional forms — such as the Center for Development of Teaching or collaborations developed by schools and universities (Nelson and Hammerman 1996; Miller and O'Shea 1996) — others are more fluid and informal. But all must be flexible and dynamic and responsive to the specific and changing needs of teachers and the profession. They must start where teachers are and build on their knowledge and skills. A network or resource effective in one community or in one school will probably operate differently in another. Or the collaborative relationship that was successful last year in supporting teachers' learning may fall short this year.

For example, a highly successful mathematics collaborative in one urban district disintegrated after five years of operation. Organizers worried that this signified failure, but a closer look at participants' responses suggested that it came to an inevitable end because it had accomplished its objectives and was no longer useful as it existed. Other networks have evolved, changed focus, and reconsidered relationships as the needs of their participants have shifted

District leaders must encourage and sustain reflective communities of practice both within and among schools and make resources available for teachers to use according to their needs and preferences.

over time. Such networks are best managed through "systematic adhocism" — a process of moving toward shared goals with enormous flexibility in strategy (Miller and O'Shea 1996).

Policies that support teachers' learning communities allow such structures and extra-school arrangements to come and go and change and evolve as necessary, rather than insist on permanent plans or promises. What does need to be a permanent addition to the policy landscape is an infrastructure or "web" of professional development opportunities that provides multiple and ongoing occasions for critical reflection and that involves teachers with challenging content.

The components of this infrastructure include professional associations working on curriculum standards and related professional development; professional standards boards developing standards and assessments for teacher licensing and advanced certification, in which teachers themselves are integrally involved; networks devoted to school change and the improvement of practice; peer-review structures; and professional tasks managed by teachers, such as ongoing development and scoring of student portfolios and other assessments.

The policy implications of sustaining healthy extra-school opportunities for professional collaboration and growth are threefold. First, policy must create significant professional roles for teachers in many areas of practice — e.g., developing curriculum and assessment, setting standards, and evaluating practice — that have previously been managed by others. These roles carry powerful, authentic opportunities for teachers to learn from others, to reexamine their practice, and to acquire new knowledge.

Second, funding must be directed to those components of a professional infrastructure that support teacher participation and learning. A climate rich in sustained and relevant opportunities for teachers' learning resembles a web, in which networks, seminars, meetings, and focus groups intersect to provide an array of opportunities for teachers. Occasions and opportunities for the intellectual renewal of teachers must be multiple and diverse rather than generic and discrete if they are to be responsive to specific content-based or learner-based concerns.

# Assess whether policies and practices are compatible with a learner-centered view of teaching and a career-long conception of teachers' learning.

Third, policy supports must focus on stimulating the environment that nurtures high-quality learning communities of teachers, rather than on particular institutional forms or promises of permanence. Effective professional development activities are fluid and have various "life cycles." Policy makers should focus on the richness and relevance of the overall "menu" of opportunities for teachers to learn. In some cases, demands for rigid "institutionalization" can lead to meaningless activities and out-of-date structures down the road.

Opportunities for professional development within schools. Habits and cultures inside schools must foster critical inquiry into teaching practices and student outcomes. They must be conducive to the formation of communities of practice that enable teachers to meet together to solve problems, consider new ideas, evaluate alternatives, and frame schoolwide goals (Szabo 1996).

Opportunities for such learning and reflection already exist in many aspects of school-day routines. It can be argued that everything that goes on in school presents an opportunity for professional development. Department meetings, for example, can be an administrative bore, or they can operate as "mini-seminars," engaging faculty members in examination of materials, student work, and curricu-

lum plans (Grossman 1996). Student teachers can be viewed as a professional responsibility or as an opportunity for learning and reflection (Tatel 1996). Serving on a committee to develop instructional plans or to review assessments can be regarded as "hardship duty" or as an opportunity to reexamine practice (Jamentz 1996). Even usually mundane or tedious tasks, such as student assignments or the creation of a master schedule, contain opportunities to reflect on norms, assumptions about practice, and organizational goals.

Activities new to the traditional role of teacher can also stimulate learning and growth. For example, the concept of the teacher as researcher puts teachers in charge of inquiry about and analysis of their workplace. School-based research and inquiry occur not only in professional development schools, but also in many restructuring efforts.

To take another example of roles new to teachers, peer reviews of practice afford occasions for deliberation about teaching and learning and can occur in many forms. During such reviews, faculty members collectively examine aspects of the curriculum; look at particular practices, problems, or concerns within the school; develop and participate in peer evaluation and peer coaching; and participate in the assessment of students. Indeed, teacher-driven assessments of teaching and learning are proving to be powerful tools for learning. Looking closely at one's own or someone else's authentic work stimulates tremendous growth (Jamentz 1996; Darling-Hammond and Ancess 1994). Questions at the heart of such inquiries about school effectiveness and student learning constitute the basis for transformative learning — learning that enables teachers to change their models for what schools and teaching might look like and accomplish.

Policy supports for professional development within schools. Organizational structures must be redesigned so that they actively foster learning and collaboration about serious problems of practice. This requires rethinking schedules, staffing patterns, and grouping arrangements to create blocks of time for teachers to work and learn together. In addition, schools must be organized around small, cohesive units that structure ongoing collaboration among groups of adults and students (e.g., teaching teams or clusters, houses, and advisory groups) so that teachers have shared access to students and shared responsibilities for designing their work. Many restructured schools have created smaller-scale workplaces in a variety of ways, ranging from block scheduling of students and teachers to reallocation of staff (Darling-Hammond, Ancess, and Falk 1995).

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most everything about school is oriented toward going it alone professionally. While it may be possible for teachers to learn some things on their own, rethinking old norms requires a supportive community of practice. The traditional school organization separates staff members from one another and from the external environment. Inside school, teachers are inclined to think in terms of "my classroom," "my subject," or "my kids." Few schools are structured to allow teachers to think in terms of shared problems or broader organizational goals. A collaborative culture of problem solving and learning must be created to challenge these norms and habits of mind; collegiality must be valued as a professional asset (Szabo 1996).

New structures for teaching may not include supervision as usually defined in bureaucratic organizations: a one-to-one relationship between a worker and his or her presumably more expert superordinate. Instead, organizational strategies for team planning, sharing, evaluating, and learning may create methods for peer review of practice that — like those used in other professional organizations and restructured businesses — may better fill the needs for feedback, oversight, and evaluation.

These same needs for collaborative inquiry and learning exist for other educators, including school leaders (principals, teacher directors, and other emerging leaders), and for support staff, from school psychologists and counselors to teachers' aides. They should also be included in these efforts and activities to examine teaching practice and learner outcomes.

Indeed, cross-role participation in professional development activities stimulates shared understandings of school goals and new approaches more effectively than activities that treat teachers, principals, counselors, and others as separate groups for whom different conversations and topics are deemed relevant (Fullan 1991). For example, extended institutes for school-based teams of teachers, administrators, and parents have proved to be critical for launching school reforms in such cities as Hammond, Ind., and Louisville, Ky. (Lieberman 1994). In addition to the participation of teachers and principals, the participation of counselors, school psychologists, and parents in shared development activities is central to the work of such successful initiatives as James Comer's School Development Program, Henry Levin's Accelerated Schools, and Theodore Sizer's Coalition of Essential Schools. Such collaborative efforts contribute to a common sense of purpose and practice among all members of the school community.

District policies directly affect the creation of learning communities and the development of learn-

ing opportunities for teachers (Talbert and McLaughlin 1994). As is true at the building level, perspective and priorities are crucial. Policies consistent with the notions of teachers' learning outlined above assume that the professional development of teachers is integral to the school workplace. A major task for district leadership is to encourage and sustain reflective communities of practice both

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within and among schools and to make resources available for teachers to use according to their needs and preferences.

## THE POLICY CONTEXT IN SUPPORT OF PROFESSIONAL DEVELOPMENT

The policy environment in which teachers work sends a myriad of often conflicting signals about how schools are expected to do business and about what behaviors and skills are valued and rewarded. Messages about more- or less-preferred teaching practices and learner outcomes issue from all of the major education policy domains, including those that shape curriculum, assessment, teacher and administrator licensing and evaluation, and accountability. Existing policies and practices must be assessed in terms of their compatibility with two cornerstones of the reform agenda: a learner-centered view of teaching and a career-long conception of teachers' learning.

Does a new curriculum framework stress "implementation of texts," thereby espousing passive teacher and student roles? Or are teachers assumed to participate in the construction of practices that begin with students' experiences and needs and aim to reach challenging student outcomes? Does an assessment system evaluate student understanding, or does it test for rote recall of facts? Do teacher evaluation systems look for teaching behaviors aimed at keeping students quiet or for practices that engage students actively in their learning? Do administrator licensing standards require that principals know how students learn and how teachers teach for understanding, or do they stress noninstructional matters? Do school accountability requirements enforce current, highly fragmented bureaucratic structures and uses of time, or do they allow for more integrated and student-centered forms of allocating staff and funds?

Schools and teachers aiming to adopt new prac-

tices must contend with the "geological dig" of previous policies that send contradictory signals and prevent a complete transformation of practice (Darling-Hammond 1990). Some of these are familiar, such as state policies on standardized testing that continue to deflect time and attention from extended writing and discourse and other more challenging forms of learning (Madaus 1993). These tests, along with mandated textbooks and basal readers, prescriptive curriculum guides, and "old paradigm" teacher evaluation measures, create incentives to continue traditional forms of teaching that emphasize superficial understanding and rote learning rather than higher-order thinking and performance skills.

Teachers learn by doing, reading, and reflecting (just as students do); by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see.



Both the content and the form of curriculum policy must change, so that what is required is compatible with teaching for understanding and provides reasons for teachers to rethink their approach to teaching and learning. Likewise, in those few key areas in which state regulation of curriculum and testing is deemed necessary—e.g., in curriculum frameworks and periodic student assessments for monitoring purposes—policy should encourage in-depth learning focused on powerful concepts and ideas. States and districts should explicitly evaluate their current policies on curriculum and testing to remove prescriptions that conflict with one another or that are grounded in misunderstandings about how students learn and how good teaching happens.

Teacher education institutions — both as purveyors of teacher education and as determinants of what
"counts" as knowledge, expertise, and successful performance — figure prominently in the policy context that surrounds professional development. It is
increasingly important that policies provide clear
guidance for schools of education regarding the demands of teaching for understanding, along with
supports and incentives that enable schools of education to meet new standards. For the most part, current policies governing teacher education, especially
the content of teacher licensing and testing requirements, fail to fully incorporate the kinds of teacher
knowledge and understanding that we have alluded
to above.

Likewise, the licensing, testing, and evaluation of teachers must be grounded in new understandings about student learning and effective teaching, and they need to be connected to other professional standards for teaching. For example, the curriculum standards developed by the National Council of Teachers of Mathematics and by other professional associations center on teaching for understanding, an emphasis that has now been adopted by the new National Board for Professional Teaching Standards (NBPTS) in its formulation of standards and assessments for accomplished practice. The model standards for licensing beginning teachers that have been developed by the Interstate New Teacher Assessment and Support Consortium also reflect this orientation, as do the accreditation requirements of the National Council for Accreditation of Teacher Education (NCATE).

Policies that provide incentives for teachers to become certified by the NBPTS, for states to enact compatible licensing standards and assessments as well as standards for approving teacher education programs, and for schools of education to become NCATE-accredited could help create a coherent approach to preparing teachers to teach for understanding. Thus, some of the disjunctures between existing teacher development policies and current reforms of curriculum could be eliminated.

Similarly, the policies that govern the ongoing evaluation of teachers must also support teaching for understanding and teacher learning. In most teachers' workplaces, teacher evaluation activities act as powerful disincentives to problem solving, learning, or an honest examination of practice. "Needs improvement," after all, is about the lowest grade a teacher can be given on most evaluations. Yet ongoing improvement and critical inquiry are fundamental to learning and change. In addition, many evaluation forms and processes continue to be based on a conception of teaching as the implementation of routines that can be observed and checked off in a

brief inspection system. The type of teaching anticipated by evaluation forms is teaching for transmission rather than teaching for understanding, and the assumption undergirding the desired teaching behaviors is that students are passive, standardized participants in classroom activities (Darling-Hammond and Sclan 1992).

Professional development must allow teachers to share what they know and what they want to learn and to connect their learning to the contexts of their teaching.

To support teaching for understanding and the professional development it requires, new forms of teacher evaluation will need to emphasize the appropriateness of teaching decisions to the goals and contexts of instruction and the needs of students. No longer is it sufficient to focus on teachers' adherence to prescribed routines. Evaluation must be conceived not as a discrete annual event consisting of brief visits by supervisors bearing checklists, but as a constant feature of organizational and classroom life for practitioners.

An emphasis on the appropriateness of teaching decisions would mean that the leadership roles of administrators in schools structured to support teacher learning and student understanding would also change. District guidelines for evaluating building-level administrators have typically ignored the question of whether those administrators have been effective in establishing and supporting a culture of learning and inquiry at their schools (McLaughlin 1992). Yet a critical role for administrative leadership is to create and sustain settings in which teachers feel safe to admit mistakes, to try (and possibly fail), and to disclose aspects of their teaching.

To fulfill these new roles and expectations for leadership, however, administrators need to understand what the conceptions of teaching and learning that motivate the nation's reform agenda look like in classrooms and how these visions of practice relate to teachers' opportunities to learn. Administrators, no less than teachers, urgently need the chance to rethink practice and to learn the new perspectives and skills that are consistent with reformers' visions of teaching and learning for understanding (Bridges and Hallinger 1996).

All these objectives require time for teachers to undertake professional development as part of their normal responsibilities. And time for teachers can be bought only by rethinking the ways in which schools are staffed, funded, and managed.

Compared to other countries, the U.S. has invested in a smaller number of lower-paid teachers who are directed, supervised, and supplemented by larger numbers of administrative staff members and nonteaching specialists, populating several layers of bureaucratic structures. In 1986 U.S. school systems employed approximately one administrative staff person for every 2½ teachers and spent only 38% of their funds on teacher salaries and less than 1% on professional development (U.S. Department of Labor 1988; Feistritzer 1983). After several decades in which the number of administrative staff increased at twice the rate of the teaching staff, by 1991 only half of those who worked in U.S. education were classroom teachers (NCES 1993). This staffing pattern stands in stark contrast to that of many European and Asian countries in which teachers constitute 80% or more of the education workforce (OECD 1990). Additional investment in teachers seems to be an irreducible element of an agenda to enact reformers' visions of teaching and learning.

Finally, through waivers, incentives, grants, and changed formula allocations, policy makers can redistribute existing resources to encourage school restructuring that provides time for teachers' collegial work and learning, that enables teachers to participate in the development and reform of curriculum and assessment, and that anticipates teachers' needs for collegial learning through strong communities of practice. Policies that anticipate these needs will move away from traditional credit-for-seat-time staff development and toward professional development that involves teachers in networks, professional assessments, and peer review.

Policies consistent with this view of professional development would encourage site-level integration of the various bundles of categorical resources flowing from state or national programs. Current categorical boundaries and accounting lines discourage teachers from addressing schoolwide goals or the needs of the whole child. Instead, accounting requirements for special projects foster a problem-focused strategy of allocation, which fragments a school faculty and fails to meet the needs of individual children — an approach inconsistent with teachers' learning to work successfully with all learners who fill contemporary American classrooms.

## POLICY GUIDELINES FOR PROFESSIONAL DEVELOPMENT

Reformers of all stripes press for an agenda of fundamental change in the ways teachers teach and students learn. They envision schools in which students learn to think creatively and deeply, in which teachers' ongoing learning forms the core of professional activities, and in which students and teachers alike value knowing why and how to learn (Nelson and Hammerman 1996; Falk 1996; Brooks and Brooks 1996).

These visions and expectations for practice assume fundamental changes in education policies in order to enable teachers to make the challenging and sometimes painful changes required of them. Yet these necessary shifts in policy have only begun.

Recognition of the embeddedness of education policy domains must precede the creation of a new model for professional development. The significant interdependencies between the expectations for change in teachers and teaching and the various domains of education policy have obvious implications for teachers' ability and willingness to change. Supports for professional development cannot be understood separately from this broader context.

The success of changes in the policy environment will necessarily depend on locally constructed responses to specific teacher and learner needs. Detailed solutions imported from afar or mandated from above predictably will disappoint; effective practices evolve from and respond to specific instructional settings. The situation-specific nature of the kind of teaching and learning envisioned by reformers is the key challenge for teachers' professional development, and it is the chief obstacle to policy makers' efforts to engender systemic reform. But the situational character of effective practice does not mean that local change must be uninformed by experience elsewhere. Experience with successful professional development effort suggests a number of design principles to guide national and state officials struggling to devise "top-down support for bottom-up change" and to guide local actors who are rethinking their policies.

Each proposed and existing policy can be "interviewed" — that is, subjected to a number of questions — to determine how well it corresponds with key factors related to teachers' learning and change. For example:

- Does the policy reduce the isolation of teachers, or does it perpetuate the experience of working alone?
- Does the policy encourage teachers to assume the role of learner, or does it reward traditional "teacher as expert" approaches to teacher/student relations?
- Does the policy provide a rich, diverse menu of opportunities for teachers to learn, or does it focus primarily on episodic, narrow "training" activities?
- Does the policy link professional development

- opportunities to meaningful content and change efforts, or does it construct generic inservice occasions?
- Does the policy establish an environment of professional trust and encourage problem solving, or does it exacerbate the risks involved in serious reflection and change and thus encourage problem hiding?
- Does the policy provide opportunities for everyone involved with schools to understand new visions of teaching and learning, or does it focus only on teachers?
- Does the policy provide for everyone involved with schools to understand new visions of teaching and learning, or does it focus only on teachers?
- Does the policy make possible the restructuring of time, space, and scale within schools, or does it expect new forms of teaching and learning to emerge within conventional structures?
- Does the policy focus on learner-centered outcomes that give priority to learning how and why, or does it emphasize the memorization of facts and the acquisition of rote skills?

Other "interview questions" will doubtless emerge as educators gain experience with policies and practices aimed at developing the capacity of schools and teachers to create effective learning environments. The challenge for policy makers and educators is to realign the existing system of signals and incentives that shape school organizations, teachers' practices, role expectations, and assumptions so that they support student and teacher learning.

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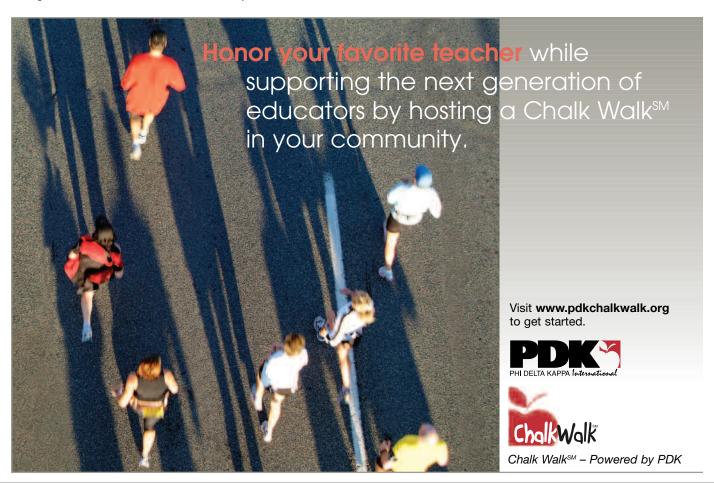
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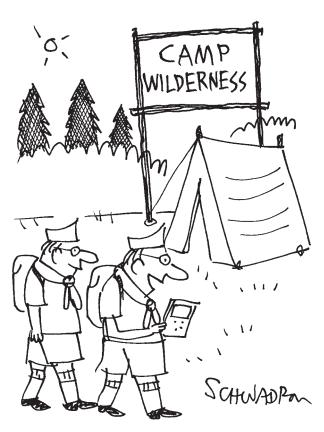
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