In a few rare programs, aspiring teachers are learning their profession not in university lecture halls but in the trenches of reform-minded schools. But how goes life along the deep fault line between theory and practice, the culture of universities and the world of schools?

THE LAST DAY OF CLASSES FOR seniors at Souhegan High School could have been any student teacher's nightmare—the day was hot, the classroom was erupting with impatience, and a U.S. history teacher was out sick for the fourth day running. But Cathy Fischer, an M.Ed. candidate from the University of New Hampshire, was taking it like a pro.

With the dozen students in her daily advisory group session, she cooperated in a self-esteem exercise led by three girls from a psychology class as their final project. Signing yearbooks on the run, she made it to her history class on time, where three students presented their final reports before their peers. She would have to step in next period as substitute for her absent colleague, but a year at the school had left her with a first-name knowledge of its students and their personalities. After a brief critical reflection with a visitor on the student work just presented, Cathy called the new group of restless eleventh-graders to order; and within minutes she had them focusing thoughtfully on their classmates' presentations, asking substantive questions about the work, and following the questions up with lively debate.

Cathy Fischer starts this fall at Souhegan High, a beginning teacher with a masters degree. But she might as well have had a year's experience added to her place on the salary scale from the start. In a groundbreaking arrangement with UNH, Souhegan actually hires eight pre-certification masters candidates at a modest $3,000 fee for a full year's internship—then integrates them completely into the life of the school, giving them real responsibility in a closely mentored environment. Fischer, a confident young woman who herself graduated in 1988 from the regional high school, was one of two interns who took a class from the start completely on her own.

Souhegan's interns had a substantial advantage: they came to the experience with Essential School ideas solidly under their intellectual belts. In seminars at UNH with education professor Tony Wagner and others, they had explored the ideas of Theodore Sizer and like-minded reformers, and their academic experiences had centered around cross-disciplinary essential questions. "Cathy brought tremendous insight into Essential School ideas into our sessions," says Bayard Brokaw, the U.S. history teacher with whom Fischer worked on curriculum planning. "She was always prompting us to focus and simplify our essential questions."

Fischer's experience could be duplicated in only a handful of situations nationwide. Much more commonly, student teachers in the United States have learned the theories of education in the lecture halls of the university—taking courses in "methods" from college...
education professors—and then endured a one-semester initiation in the bumptious, harried classrooms of the public schools. The contradiction between theory and practice, any veteran teacher will tell you, is often so profound that, for an observant participant in the process, the elements of a teacher’s education actually cancel each other out. And the accompanying erosion of trust between universities and the schools they prepare teachers for has only made the gap between them worse.

What happens to such a system of educating new teachers when public schools begin to propel themselves toward Essential School change? Does the slow-paced, hierarchical, research-oriented, discipline-based university education school have any part to play in the hickey-split, pragmatic, grassroots messiness of a high school rethinking everything from departmental distinctions to final exams? As one system rubs up against the other, does the fault line eventually split them more widely apart? Or can school and university each begin to alter the other’s consciousness, question old assumptions, see aims in new ways and devise new means for reaching them? Perhaps most controversial, who should control the process of educating teachers in a time of fundamental school change?

Thoughtful reformers have been asking these questions persistently since the mid-1980s wave of school reform began with the publication of the highly critical U.S. government report A Nation at Risk. From John Goodlad’s Center for Educational Renewal (based at the University of Washington) to the Holmes Group (a nationwide consortium of 96 education schools committed to school reform), a heightened consciousness has arisen of the importance of teacher education to changing practice in schools, and vice versa.

The American Association of Colleges for Teacher Education, the Education Commission of the States, and Columbia University’s National Center for Restructuring Education, Schools, and Teaching (NCREST) are among many influential groups calling for “professional development schools” (also known as clinical schools or partnership schools), where universities and schools might collaborate to prepare new teachers, to renew the professional knowledge of veteran teachers, and to conduct site-based research into teaching and learning.

But only in the last few years have the first answers to the dilemmas of teacher education in a time of school reform begun to emerge. And they come in the most concrete of forms—beginning teachers who have been systematically coached, through sustained classroom modeling, practice, and reflection, in the principles of the Coalition of Essential Schools. In a handful of widely scattered efforts including several well-developed Coalition member schools, new partnerships are in progress that ground teacher education firmly in schools in the midst of change.

“We want to do teacher education only in schools that are in the process of restructuring,” says Lynne Miller, a University of Southern Maine education professor who heads the Southern Maine Partnership, an innovative program closely linking the University of Southern Maine with a rapidly developing regional network that includes a number of Coalition member schools. “That means no part of the agenda—new teacher preparation, teacher development in the schools, and school renewal—takes place in isolation; they all touch on each other. When you place teacher ed students in good schools engaged in self-reflection and change, they learn not only good classroom practice, but how to be professionals teaching and learning in a process that effects that change. It’s not a lesson plan—it’s a process of active inquiry.”

The Southern Maine Partnership is part of John Goodlad’s National Network for Educational Renewal, pilot sites across the nation aimed at reforming teacher education. But where Goodlad emphasizes teacher education as the lever for school

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renewal, Lynne Miller observes, "we see school renewal as the lever for teacher education."

Coalition Chairman Theodore Sizer agrees. "You just can't talk about teacher education apart from school reform," he declares. "I know I can run a good school and train good teachers in that school. But there is no way to train good teachers without that school. Even the most superb training in the world won't help a person do a job that's been designed so he cannot succeed, like teaching English to 150 kids a day. The schools have got to be the pivot."

Do It in Schools

The Southern Maine Partnership and a similar program in Jefferson County, Kentucky are perhaps this country's best-articulated examples of full-scale integration of teacher education into the public schools. Both the University of Louisville and the University of Southern Maine have long supplied legions of beginning teachers to their localities, and both institutions have recently taken similar radical steps to change the structure and methods of their programs.

In doing so, they have challenged many of the university's most cherished customs—notably its professorial role as the remote expert dropping in for a few brief observations in the field to assess a candidate's readiness to teach. In these programs, instead, public school teachers themselves may take on the status of adjunct university faculty, coaching and assessing teacher candidates over a sustained period and integrating preliminary methods courses into a long-term hands-on experience. University faculty, for their part, find themselves deeply involved in the workings of schools—collaborating with teacher teams, stimulating new ideas, mining the university's extensive resources, and reflecting with school people on their current practice. Along the way, they learn what kind of research teachers really could use—from the effects of class size to the usefulness of assessment rubrics—and enlist the school's aid in carrying it out.

When Joe Phelps decided to trade in a career managing a Louisville fast-food restaurant for his lifelong dream of teaching high school history, for example, he turned to the University of Louisville teacher education program, where mid-career teaching candidates like himself are more common than not. But instead of sitting in university classrooms for the traditional semester-long introductory courses in education and developmental psychology, he immediately plunged into the halls of Coalition member Fairdale High School for a semester-long double-credit team-taught course. His instructor, the school's history teacher Jackie Powell, not only had he studied the theoretical underpinnings of Essential schooling but he knew Fairdale's practices thoroughly enough to make substantial contributions to his teaching team. Principal Marilyn Hohmann fired him right after graduation to teach at Fairdale in the fall, and this year Joe Phelps will be one of three teachers on his tenth-grade teaching team whose University of Louisville preparation matches his own.

"There's absolutely no comparison between these graduates and previous candidates," says Hohmann emphatically. "After several years of this program, we now have at least four or five new teachers who have hit the ground running—prepared for real classroom experiences at rigorous levels and trained to put a rational, systematic emphasis on the way kids learn. From day one they have had practice in working with diverse student populations in student-centered classrooms. Frankly, they can do things that are unheard of even for many experienced professional teachers."

The approach works, participants say, because it requires teacher ed students to be active learners right from the start. "We have eliminated the typical 'observations' you find in the 'field experiences' of other teacher ed programs," says John Fischetti, a professor of secondary education at the University of Louisville who, with his colleague Betty Lou Whittford, has played a key role in its restructuring. "Every visit is an involved teaching visit where they have to do something meaningful." And because a substantial cohort of teacher ed students is at the school at any one time—about 100 students each semester in Fairdale—
Demographics, Regulation, Assessment:
Who Teaches? How Well? How Do We Know?

Like many attempts to make schools better, teacher-education reforms have been complicated by an ill-defined emphasis on accountability—in this case, regulating who enters the teaching profession and how. In an ongoing analysis, Columbia University professor Linda Darling-Hammond has explored how several intertwined issues affect availability, assessment, and regulation of teachers.

State certification of teachers varies widely, Darling-Hammond notes—not only from state to state, but according to demographic shifts affecting supply and demand. One result is that teachers end up being treated more as tradespeople (from whose lack of training the state protects the public) than as professionals (whose own members confer legitimacy via a recognized body of peers). Whenever demand is high and supply short, ill-qualified candidates are allowed to fill the need (as in the trades, where any handyman can attack your dishwasher)—rather than letting salaries rise to attract new competition for positions (as in the professions, where eye surgeons command top dollar).

In teaching—unlike law, medicine, or architecture—no common standards of excellence have held sway, determined by master practitioners themselves; no year-long supervised internship period for new teachers has been mandatory as it is in most professions. Instead of continually assessing teachers’ demonstrated mastery of what they know and are able to do, the teacher certification process has typically measured course credit hours and checklist-style “field experiences.”

More Teachers Look Toward Retirement

At the same time, demographic, cultural, and economic shifts—the baby boomlet, the women’s movement, and the recession among them—have markedly affected not only how many students the nation must educate, but who their teachers are. According to Darling-Hammond, today’s public school teacher is typically in her early forties, with close to 20 years of experience. She was senior enough to survive the layoffs of the late 1970s, but now she is looking toward retirement. Despite pay increases during the 1980s, her real-dollar pay just barely matches what it was in 1971, and it is about 15 percent less than her experienced counterpart was making in the early 1970s. And she is likely to be discouraging to potential teachers about the satisfactions of the job: by 1986 fully 31 percent of teachers said they would not choose that career again.

The combination of large numbers of teachers retiring and a decline in the college-age population (exacerbated by a sharp dip in those who choose teaching) presages a looming teacher shortage, Darling-Hammond’s research reveals—one that has already hit cities, Southwestern states, and certain fields everywhere. This shortage is compounded by high turnover among new teachers and complicated by field-specific shortages that often result in teachers leading classes outside their field of preparation.

Finally, work conditions, growth opportunities, and teacher autonomy affect a school’s ability to attract good candidates. Teacher shortages in economically troubled areas are far higher than elsewhere; the Coalition’s Pasadena High School loses one third of its teachers yearly.

Supply and Demand: A Vicious Circle

When states react to such dire situations by loosening their standards, Darling-Hammond argues, salaries remain depressed and a vicious circle begins of ill-equipped candidates likely to drop out of unattractive teaching jobs. The solution is not “emergency certification,” she asserts, but a concerted effort by teachers to seize control of their own profession, articulating new standards and participating in the renewal of the teaching pool. Bottom-up school reform plays a key role in this transformation, making the teacher’s job more satisfying and rewarding; so do higher wages and a meaningful career ladder for talented teachers.

Darling-Hammond also urges the federal government to provide incentive scholarships for highly qualified teaching students, and she calls on universities to ground their education programs squarely in restructuring schools, providing longer internships and mentoring periods for beginning teachers.

Finally, the effort to assess teacher candidates in more authentic and meaningful ways has begun on several fronts. A 63-member National Board for Professional Teaching Standards was formed in 1987, primarily of classroom teachers. By 1994 that board hopes to engage school districts and teachers in recognizing and rewarding those who can demonstrably meet its advanced standards. At the same time, the Interstate New Teacher Assessment and Support Consortium (INTASC) has been working on a comparable set of new licensing standards, with the goal of bringing widely disparate state systems to a shared understanding of what constitutes professional teaching. The National Council for Accreditation of Teacher Education Programs has sharply revised its standards; and deans of the education schools in the reform-minded Holmes Group are searching for ways to restructure their programs (notably, through professional development schools like the ones described in this issue).

Any such efforts must ultimately ground themselves, just as Essential School classrooms aspire to, in classroom performance that demonstrates real understanding.

“Reforms in teacher education ought to be grounding learning about teaching in a process of learning about learning,” Darling-Hammond says. “Understanding that—both for their future students and themselves—is the biggest single change in the philosophy of education. How new teachers are prepared must be as authentic as what we expect in classrooms from them later on.”
and Iroquois high schools combined—the students also get practical experience in classroom teamwork. “We team up beginning teacher ed candidates,” Fischetti says. “We link second-year student teachers with teacher ed students in earlier-phase classes. And of course all students work closely with the teaching teams at the sites.”

How Schools React

How does such an invasion of the university crowd feel to regular classroom teachers trying to do their jobs? “Not only do our folks not resent them,” says Marilyn Hohmann, “but there is a real sense of collegiality, respect, and shared purpose between us. We are very involved in the planning stages of their program; they are very sensitive to what our needs are, and we help them design their activities along those lines.”

Having teacher ed students to call on, say Fairdale teachers, allows them to try new classroom techniques that benefit from additional helpers, such as cooperative learning or performance-based work. And the school’s faculty members work closely enough with university people that they have come to see them as helpers and colleagues. Professors serve at no cost as “critical friends” to school faculty, working on team-building and curriculum planning. They fill in for absent team members or model new techniques.

They offer resources and training in unfamiliar pedagogies such as the new math standards. They help develop and refine the essential questions that focus Essential School curricula. They collaborate on getting grants to explore new areas of change. They observe experienced teachers, provide them with thoughtful feedback, hold them to rigorous standards. They share in governance councils that articulate school goals, and they help evaluate progress toward those goals at year’s end. Not least, when the school’s practices come into question in the community they serve as respected spokespeople.

The university’s presence can also contribute to anxiety teachers already may feel about the changes Fairdale is experiencing, Hohmann concedes. “Some teachers do take offense when their classroom techniques come under critical analysis,” she says. “A new teacher with different ideas may either energize a team or create defensiveness.” Hohmann lets events take their course, she says, trusting that when newcomers are trained to support, encourage, and negotiate, their ideas will slowly spread. “The beautiful fact is the university’s attitude is not judgmental or critical but facilitative,” she says. “These people have a vision that matches our own about teaching and learning—they believe we have to change and that the university has to be a big part of that change.”

How Universities React

Back at the ranch, how does all this upheaval sit with entrenched university systems for which teacher education has long been a profitable area? Just as in schools initiating change, the tensions of change show up everywhere from the classroom to the governing council. Can new teachers learn, for instance, to cross disciplinary lines, explore essential questions, become generalists in the “knowledge industry,” and coach young student-workers if their university professors (who typically

**Tensions show up when universities used to discipline-centered, course-based learning must model a new philosophy to aspiring teacher-generalists.**

At best, school-based education professors collaborate with teachers, coach them, substitute for them, offer them resources, and help them shape new goals and assess their progress.
New teachers from innovative programs are snatched up by reform-minded schools.

work to do, it's so much better that you can't go back. I'm just worried about pulling it off if people get really tired—it's the same issue high school people who are restructuring face.

The Southern Maine Partnership began its university-school connections some eight years ago by focusing not on teacher education but simply on shared conversations about school renewal. "For five years teachers and university people met in elementary, middle-school, and high-school groups to seriously discuss, as equal partners, new ideas in teaching and learning," Lynne Miller says. "The Partnership provided a third culture, neither university nor school, and eventually we started talking together about new forms of teacher education."

Now the year-long University of Southern Maine post-baccalaureate teacher certification program—embedded in an extended program that goes on to a graduate degree—sits its classes in five districts within striking distance, all of which are members of the Southern Maine Partnership, which has close ties to the Coalition of Essential Schools. "We talk about university and school-based teacher educators, not university faculty and public school teachers," Miller says, and the program's structure and pay policies reflect that attitude.

"Teachers tell us that it enhances their own professional development to have our interns in their classrooms, engaged with them in questions about teaching and learning," Miller says. "The courses we offer to interns are also open to school faculty, so they can conveniently acquire credits for recertification purposes. They are treated as professionals, what they know is valued, and their opinions are taken seriously. They help make our admissions decisions; in several instances we have counseled students out of the program after schools have advised us they would not make good teachers."

Clashes inevitably arise, Miller asserts, when change-minded school people share this kind of power in inducting new teachers. At Gorham High School, one site in the ATLAS Communities partnership (including CES, Yale's School Development Program, Harvard's Project Zero, and Education Development Center), secondary social studies teacher ed students share courses with elementary social studies teachers, for example, linking what they learn to high school practice by independent study. "The course has to be called 'Teaching Social Studies in Elementary School' because of state certification requirements," Miller says. "But these people will graduate as true generalists, with dual certification.

"And what if you got rid of all that and had a 12-credit-hour inquiry-based course called 'Teaching in School'—using what's generic in methods courses, like the constructivist nature of learning, then learning how to apply that in math, social studies, and so forth, and only getting specific about content where you have to?" Miller speculates. "What if the entire teacher ed program were organized around essential questions and real problems raised by that district for that year? The whole program could be geared toward teachers in school and teachers in training trying to figure out how to answer these questions! You're not supposed to do that given the system's structural restraints, but that's what we're moving toward in Gorham."

The more developed schools become in their thinking about teaching and learning, Miller observes, the more impatient they get with university structures and norms, from course requirements to assessment methods. "Universities don't construct things so knowledge can happen outside of courses," she asserts. "That doesn't ring true for people in the field. Teachers at schools far along in change are raising questions that really push the boundaries. To answer them the university has to start shedding its skin, and it's not about to do it. That's where the battle is going to be."

Yet these important tensions are not meant to be resolved, Miller argues, but rather managed. "You don't want to turn everything over to schools, any more than you want the university to be the way it used to be," she says. "But if you're really going to change you might need, for example, to start having courses and faculty appointments approved by a joint committee of university and school-based members, rather than having complete university control the way it is now."

Another key question, Betty Lou Whitford adds, is how to get school and university cultures better linked in reflection, inquiry, and research. "Right now universities control the questions," she says. "But who cares if we're off researching only what we're interested in, writing reports only other researchers read? The questions have to arise out of the needs of schools." Teachers play a part in this, she asserts, not only by capturing data but by using it to better understand their work. "Last year at Iroquois High we had six or seven meetings of a research forum," she says, "generating questions like how class size affects Essential School pedagogies."

When barriers break down between schools and universities, research topics arise directly from what teachers need to know.
Of the students who completed USM's teacher ed program last year, portfolios of their teacherly accomplishments in hand, 96 percent were snapped up by schools clamoring for new teachers with experience in the restructuring process. Louisville reports the same phenomenon, in a state whose education reform act has virtually codified Essential School ideas. Education schools across the country are sitting up to take notice: programs that work directly with Coalition member schools are under way at Millersville University in Pennsylvania, Indiana State University in Terre Haute, Indiana University Northwest in Gary, the University of New Mexico, the University of Hartford in Connecticut, Florida International University, and the University of New Hampshire, among others.

For programs like this to work, however, requires identifying and promoting a rare species: university and school people who can effectively straddle the conventional boundaries between these two turf-bound worlds. "If all universities were to do what the University of Louisville is doing, we could change everything at Jefferson County's 21 high schools," declares Fairdale's Marilyn Hohmann. "More than any single external factor, the university connection has pushed us ahead in our Essential School goals. When they leave their titles and their past expectations at the door, it's a powerful relationship that can go anywhere."

"The way I think about it, we're all in the same business—not just to help schools, not just to educate teachers, but to collaborate in the education of children," says Betty Lou Whitford. "Our goal is to blur the lines so that it will be hard to tell whether I'm a university person or a school person. I never believed it could actually happen—but it is happening and it is amazing to watch."
Suggested Readings


For information on innovative programs

- University of Southern Maine: 207-780-5373
- University of Louisville (Kentucky): 502-588-0596
- Millersville University (Pennsylvania): 717-871-2002
- Indiana State University at Terre Haute: 812-237-2917
- Indiana University Northwest (Gary): 219-980-6887 or 7475
- University of New Mexico (Albuquerque): 505-277-7786
- University of Hartford (Connecticut) School of Education and Health Professions: 203-243-4649
- Florida International University: 305-765-6551
- University of New Hampshire: 603-862-2940