Shaping New Models
for Teacher Education

By Frances O'Connell Rust

American teacher education is stuck in an unproductive and dysfunctional pattern, not unlike the American domestic automobile industry. American teacher education programs graduate thousands of newly certified teachers each year, but the evidence that even half of the new graduates are dynamic and capable teachers is weak. The reputations of the teacher education programs through which they pass are poor, both within the academic community and in the field of K-12 education. Tinkering to improve at the margins of university-based teacher education has not worked. The time has come for dramatic, fundamental change in the way we prepare the teachers of America's fifty-five million school children.

The dramatic change needed will require a redefinition of teacher education,

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taking it beyond preservice preparation to include the ongoing support of teachers throughout their professional lives. Further, teacher education should be situated at the nexus between universities and schools—the place where theory and practice can come together. And finally, making these fundamental changes in teacher education will require that teacher educators in both school and university settings have the benefit of the type of on-going professional development that research has shown to be essential to consequential, long-lasting reform in schools (Lieberman & Miller, 2001; Little & McLaughlin, 1993; Little, 2007).

Powerful, sustainable reform must be driven by inquiry among teacher educators themselves and it must be active, collaborative, embedded in a teacher education context, and a central part of school and university cultures.

Looking across the Field of Teacher Education

Often, teacher education is understood by teacher educators, researchers, policy-makers, and the public in ways that bring to mind the *campfire effect*. A group is warmed and energized, even inspired, when sitting around a blazing campfire; but as soon as we move away from the heat and light and into the darkness, the power of the campfire moment quickly fades. Likewise, efforts to reform teacher education tend to focus on the immediate surround of preservice education but to evaluate its impact at a distance, i.e., relative to what new teachers do in their first years of teaching. However, unlike the blazing campfire at summer camp, teacher education itself is not a single entity that always works in identical ways in every setting. So, reforming teacher education is not a matter of revising one specific set of practices, a specific configuration of courses, or a particular evaluation system. Rather, what is needed is a comprehensive re-conceptualization of what effective teacher education can be; an empirically based and radically local framework that addresses the two major issues confronting teacher educators: *the problem of practice* and the *challenge of succession.*

The Problem of Practice

Educators preparing professionals in almost every field from law, to medicine, to social work currently contend with the dilemma of how to bring research together with practice in ways that enable both a mutual interaction and a qualitative upgrading of practice. The problem of practice is particularly acute in teacher education where a number of reports on teacher education (Abell Foundation, 2001; American Federation of Teachers, 2000; Cochran Smith & Zeichner, 2005; Darling-Hammond, 1997, 2001; Haselkorn & Harris, 1998; National Center for Educational Statistics, 1999) suggest a field that is in disarray and loosing credibility with both policy-makers and the public. For example, Levine (2006) finds that few programs stand up to any type of rigorous scrutiny. He writes,

> Too often teacher education programs cling to an outdated, historically flawed vision of teacher education that is at odds with a society remade by economic, demographic, technological, and global change. Equally troubling, the nation is deeply divided about how to reform teacher education to most effectively prepare teachers to meet today's new realities. (p. 1)

"In this rapidly changing environment," Levine warns, "America's teacher education programs must demonstrate their relevance and their graduates' impact on student achievement—or face the very real danger that they will disappear" (3).

The criticisms of teacher education relate directly to the problem of

practice. Levine, for example, cites the following problems with teacher education:

Inadequate Preparation: Many students seem to be graduating from teacher education programs without the skills and knowledge they need to be effective teachers. . . or to address the needs of students with disabilities (30 percent). A shockingly low percentage of principals said that their teachers were very or moderately well prepared to meet the needs of students from diverse cultural backgrounds (28 percent); to work with parents (21 percent); and to help students with limited English proficiency (16 percent). (pp. 3 & 4)

A Curriculum in Disarray: Unlike law and medicine, in education there is no standard approach to preparing teachers. (p. 4)

Disconnected Faculty: While almost nine out of ten (88 percent) education school professors have taught in a school at some point in their careers, alumni and students complain that too often the experiences of faculty members were not recent or long enough. . . In addition to being disconnected from schools, faculty members remain disconnected from the rest of the university because their research is considered lacking in academic rigor by their faculty peers. (p. 4)

Low Admissions Standards: Universities use their teacher education programs as "cash cows," requiring them to generate revenue to fund more prestigious departments. This forces them to increase their enrollments and lower their admissions standards. Schools with low admissions standards also tend to have low graduation requirements. (p. 4)

Other critiques (Abell Foundation, 2001; MacIver, Vaughn, Katz, 2006; NIES, 1999) of teacher education claim that

• The activities engaged in by preservice teachers in college/university settings are rarely relevant to their subsequent professional practice

• Student teaching placements are often too brief

• Sites are chosen to accommodate faculty and students' comforts rather than to challenge tacit images of good schools and good teaching

• In fieldwork, there is often little supervision; it is often of poor quality; and it is rarely in genuine synchrony with the teacher education program

• In high needs urban schools, teachers from alternative certification programs have higher retention rates than either conditionally- or regularly-certified teachers for each of their first five years of teaching

Levine (2006) makes five recommendations for accomplishing change in teacher education:

ONE: Teacher education programs (should) be seen as professional schools focused on school practice. (1) Just as medical schools are rooted in hospitals and law schools focus on the courts, the work of education schools should be grounded in the schools. (7)

TWO: The measure of a teacher education program's success (should be) how well the students taught by its graduates perform academically. (9)

THREE: Make five-year teacher education programs the norm. Teacher preparation programs should be designed as an enriched major rather than a watered-down version of the traditional undergraduate concentration. (10)

FOUR: Establish effective mechanisms for teacher education quality control. If teacher education is the Dodge City of the education world, teacher education accreditation bodies are weak sheriffs. It is time to rethink accreditation and to encourage the participation of top schools in developing standards and enforcement mechanisms. New accreditation standards should root measures of success in hard data on student achievement and expand accreditation to include non-collegiate education programs offered by new providers. (10)

FIVE: Close failing teacher education programs, strengthen promising ones, and expand excellent programs. Create incentives for outstanding students and career changers to enter teacher education at doctoral universities. (11)

Whether one agrees with these critiques of and reform prescriptions for teacher education, current efforts aimed at the reform of teacher education such as *Teachers for New Era* and current alternatives to college/university-based teacher education such as *Teach for America*, *ABC Teacher Education,* and municipal programs such as New York City'*s Teaching Fellows* appear to be very much in synchrony with Levine's and other critics' perspectives. These initiatives have two elements in common: (1) a commitment to the idea of teachers learning to teach in school settings, and (2) an approach to assessment of teaching based on student performance, i.e., the performance of preservice and new teachers' students. At issue here is the problem of practice. At issue, too, is a conception of teacher education as a relatively stable and replicable enterprise that, given the right sets of resources, could successfully produce new teachers capable of entering today's schools as highly competent professionals.

The Challenge of Succession

Directly related to the problem of practice is the second major issue confronting teacher education: shaping the next generation of teacher educators. These must be individuals who can draw on the rich knowledge base developed over the past 30 years and who can take teacher education in new directions. This next generation must be competent and imaginative in their use of interactive technologies; they must have the skills, capacity, and desire to study their own practice; and they must be able to effectively reach across the gulf that separates schools from teacher education institutions. Where will they come from? What should their preparation be?

There is a growing consensus within the community of teacher educators (Cochran-Smith, 2003; Cochran-Smith & Zeichner, 2005; Darling-Hammond & Bransford, 2005; Hiebert, Gallimore, & Stigler, 2002; Korthagen, & Kessels, 1999;

Korthagen, Loughran, & Russell, 2006) that teacher educators have the capacity to radically shift the ways in which teacher education is practiced, and, thus, the ways in which teachers teach. Cochran-Smith (2003) advocates the adoption of an inquiry stance on the part of teacher educators mirroring or modeling the approach to teaching and learning that their students should adopt. Hiebert, Gallimore, and Stigler (2002) also advocate an inquiry stance, but they frame inquiry within a paradigm akin to lesson study (Lewis & Tsuchida, 1998) whereby teacher educators would study and share their experiences pilot testing various teacher education practices—thus refining practice over time as well as raising the level of practice across the field. In their eight-year study of the elementary mathematics program at the University of Delaware, Berk and Hiebert (2009) provide a vivid, grounded example of the ways in which such critical self-study can change an entire program and provide teacher educators with the type of evidence essential to supporting claims about the impact of teacher education.

However, changing the way teachers are taught to teach must incorporate more than immediate practice and inquiry around that practice. As Fuller (1969), Conway and Clark (2003), Korthagen and Kessels (1999), and Korthagen, Loughran, and Russell (2006) have shown, teacher education must enable prospective teachers to grapple with their own experience as learners. For, it is the long period that stretches from early childhood through college or graduate school that constitutes an "apprenticeship of observation" (Lortie, 1975). Watching teachers for decades at a time accounts for a significant portion of a prospective teacher's development and shapes the tacit images of teaching that shape how teachers teach (Korthagen, et al., 2006, 1999).

In terms of elapsed time, this apprenticeship of observation can be likened to the 10,000 hours of practice that Gladwell (2008) suggests are needed for the development of expertise in any field. However, unlike Gladwell's 10,000 hours, which are developed around actual practice that is relevant, intensely meaningful to the learner, and pursued in a supportive environment, the 10,000 hours of observational apprenticeship engaged in by preservice students are rarely intentionally pursued and bear incompletely on what is expected of them as teachers. Simply put, preservice teachers have little deep, personal, *experiential knowledge* of teaching to draw on as they move into their preservice programs and even into their first years of teaching. And teacher education programs routinely fail to draw on their students' tacitly held images of teaching and learning and thereby miss helping them to acknowledge and use their apprenticeships of observation as a means of apprehending new approaches to teaching and learning. In the end, then, teacher educators have little evidence of substantive change among their students that would enable them to demonstrate the impact and long-term value of teacher education.

The same phenomenon is often true for teacher educators themselves as they embark on the preparation of new teachers. What they draw on is their own lived experience as teachers. Rarely are teacher educators intentionally prepared to do

teacher education. Rarely is there an effort on the part of the schools and colleges of education or the schools in which teacher professional development often takes place link research and practice in ways that enable sustained study of teacher education practices like that described by Berk and Hiebert (2009) or by Crasborn et al. (2010)

Hence, among the major challenges for teacher educators are

1. Finding ways to help preservice students engage in an explicit examination of their assumptions about teaching and learning as well as of their images of the role of the teacher.

2. Recognizing that in teacher education, we are merely helping our students *begin* a new 10,000 hours of purpose-driven practice.

3. Supporting local inquiry in teacher education and enabling a broad professional conversation around such inquiry.

4. Developing persuasive evidence of the power of teacher education.

To think of teacher education programs as beginning a new 10,000 hours of purpose driven practice implies major challenges for teacher educators including honest, self-critical evaluation of past programs and activities, contemplation of possibilities for a new present, and movement to action (Gladwell describes this as action focused around meaningful work and pursued in community).

Developing New Models of Teacher Education

Figure 1 represents teacher education as a small part of the whole span of a teacher's professional life. In this framework, efforts to make teacher education powerful in the personal and professional life of teachers might be seen as blurring the boundaries of the small rectangle in Figure 1 that represents the period of traditional teacher education by changing the ways in which teachers are prepared for the profession and supported over the long course of their professional lives. These new ways must draw on what we currently understand about how adults and children learn (Bransford, Brown, & Cocking, 2000). These new ways of supporting teacher learning from examined experience should draw on teachers' prior knowledge and should enable preservice teachers to test their ideas and construct new conceptual understandings in the context of practice.

In his famous book, *Experience and Education*, Dewey (1938) describes the ultimate work of the teacher as being able to participate in a seamless way in "the soul life" of the classroom. This means achieving a kind of oneness with one's students, being able to read beneath the surface of a question, being able to engender a deep respectfulness between and among teachers and students. Supporting teachers toward this kind of deep knowing is fraught with difficulty—not only because most teachers draw so heavily on their apprenticeships of observation but also because

Figure 1
A Teacher's Life

Teacher Education

Teachers Professional Life

New Teacher's Lived Experience
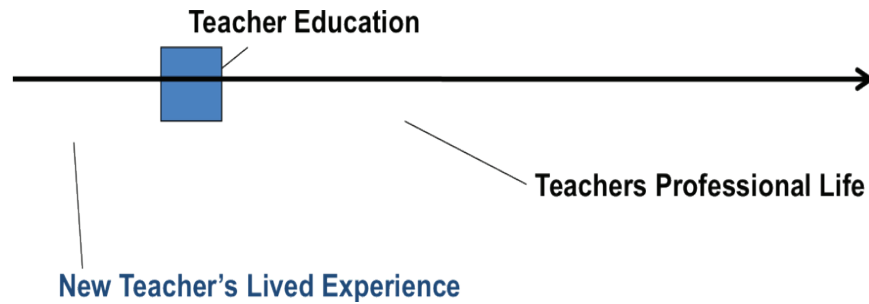
the standard of teacher education practice is shaped more by attempts to fit into the culture of higher education than with the culture of the K-12 classroom.

Generally, the preparation of new teachers is carried on in the college or university classroom, sometimes in a lecture format, often in workshop format, but rarely *within* the context of children's schools or classrooms. True, there may be an element of observation and there will almost always be a practicum, but how often do teacher educators

(1) make their use of space and time reflect realistically the essence of the environment into which their students will go?

(2) or embed their instruction in actual autonomous practice by individual preservice students?

Further, if preservice teachers only begin to understand schools and classrooms in the short period that most have for student teaching, how can they come to know that soul life that Dewey describes? How will they reach the point of being able to hear the authenticity and depth of learners' questions? And finally, if, as Berliner (1986) claims, it takes ten years to become a competent teacher, how can teacher educators make best use of the brief period of preservice teacher education to begin this decade-long process with explosive energy and powerful, long lasting tools?

Developing the Edge

Finding ways to maximize the impact of preservice education requires that teacher educators revise their understanding of teachers' professional development from the brief moment of formal teacher education to the long continuum that begins with individual teachers' first experiences of schooling and continues throughout their professional lives. Capturing tacit assumptions and beliefs formed during the apprenticeship of observation is critical and not easily done in the traditional teacher education context, so far removed from the everyday life of schools and

classrooms. What is needed is a deep connection with educational settings outside the university, that is, a qualitatively different relationship than is currently customary between teacher education programs and schools and other educational agencies. There have been many efforts at school-university partnership over the past twenty-five years (Carnegie's Teachers for a New Era, 2001; Holmes Group, 1986; National Network for Educational Renewal, 1988; Hind, 2002). But there is very little research that documents and evaluates partnerships in ways that permit the aggregation of local knowledge to effect widespread shift of practice toward genuine partnership with schools and other educational organizations. Zeichner (unpublished) describes this new locus for teacher education as a "third space" and sees it as critical to the viability of teacher education that is informed by research and theory:

> There is a great deal of impatience with colleges and universities across the country for what is perceived to be our unwillingness to change and work with schools and communities in closer and more respectful ways across teachers' careers (e.g., Hartocoltis, 2003). Despite the complexity of bringing this new epistemology of teacher education into the mainstream, unless we are able to do so relatively soon, college and university-based teacher education may be replaced as the main source of teachers for the nation's public schools. (p. 19)

But it is not enough to move teacher education into a school context. As Lunenberg and Korthagen (2009) point out: "Although student teachers spend more time in schools than 10 years ago, this has not automatically affected the way teacher educators in teacher education institutions teach" (p. 229):

> Teacher education can, in our view, be more effective, also within a limited time frame, if the triangular relationship between experience, theory, and practical wisdom is taken seriously as the basis for curriculum development and teacher educator interventions. This view goes beyond the frequent discussions of what should come first, theory or practice, or about the degree to which teacher education should be school-based. Hence, this requires that the whole context in which teacher education takes place is considered . . . (p. 237)

And it requires a new relationship between and among teacher educators. Current research on peripheral communities of practice by Wenger and his colleagues (Wenger, 1998; Wenger & Snyder, 2000; Wenger, McDermott, & Snyder, 2002) and by Gorodetsky, Barak, and Harai (2007) on edge communities provides some important clues about how Zeichner's "third space" might function and what adaptations might be called for among university-based teacher educators

While some *peripheral communities of practice* have been carefully supported in their development, Wenger and his colleagues note that most of these groups develop spontaneously in organizations to address specific needs perceived by members of the community. "Inevitably," write Wenger and Snyder, "people in communities of practice share their experiences and knowledge in free-flowing, creative ways that foster new approaches to problems" (p. 140). Hence, the value

of these communities of practice lies in the opportunities for creative thinking and for trial of new ideas that they provide.

Gorodetsky, Barak, and Harai,(2007) describe the institutionalization of a collaboration between an innovative teacher education program and an experimental comprehensive high school. "This community," they write, "is a dynamic community that is continuing to change at present and exerts its influence on the professional lives of both collaborative institutions" (p. 100). Borrowing from biology and the natural sciences, this community of practice is described by Gorodetsky, et al. as an *edge environment*: In the world of ecological science, edge environments are "tender" zones—places that are easily affected by change in the original environments from which they draw their liveliness. These

> transitional environments . . . are known for their resilient, dynamic nature in coping with change and productivity (Odum, 1971) as well as for their richness and diversity. This is because they are inclusive of both the original core features and the new ones that emerge in these settings (Turner, Davidson-Hunt, & O'Glaherty, 2003). They are not part of the major activities of either institution—neither that of the school nor of the teacher education program. Instead, they are peripheral to both initiating institutions with their own identity that incorporates many of the advantages that are characteristic of ecological and cultural edge environments. (p. 102)

In the world of social organizations—companies, schools, universities, churches—edge environments are equally "tender." They require flexibility from leadership both within and outside of the edge environment (Wenger, 1998; Wenger & Snyder, 2000; Wenger, McDermott, & Snyder, 2002). They should be nurtured but not managed—a difficult balance. But, like their ecological counterparts, edge environments are places where strong, new, creative communities can emerge and flourish, giving support to the original communities from which they emerged and providing a place for the testing of new ideas and new forms of organization and relationship.

This line of research suggests that teacher educators embracing a broader conception of their work must become adept at moving between these communities, retaining the scholarly discipline required by the university and embracing the discipline of practice that is essential to effective teaching in school and child care environments. Like all scholars, they must be knowledgeable about their field—here, teaching and learning. They must be inquirers—investigators of their own practice. They must be committed to working from research to practice, to looking at whether and how their research and that of colleagues across the field is evident in their practice (e.g., Berk & Hiebert, 2009), documenting their effort to upgrade elementary mathematics education in a university teacher education environment (Crasborne, Hennissen, Brouwer, Korthagen, & Bergen, 2010), and studying ways to support the work of mentors of student teachers. This requires commitment to working within a community of learners like that described by Gorodetsky and colleagues (2007). Finally, as Hiebert, Gallimore, and Stigler (2002) suggest, teacher

educators must be committed to sharing their work broadly, that is, to making their research and practice, "public, storable and sharable, and open for verification and improvement" (pp. 6-8). These elements should be so much a part of our practice as teacher educators that our students will come to see them as critical elements of their practice and as foundational to their new 10,000 hours. In essence, we need to model the practice we want our students to incorporate into theirs.

Inquiry on Action

In earlier work (Meyers & Rust, 2008; Rust, 2009), I have proposed practitioner research—our students' and our own—as a viable bridge between academic research and practice. Here, I propose an action plan for the professional development of teacher educators. I draw on the model provided by the MOFET Institute in Israel—"a national center for the research and development of programs in teacher education and teaching in the colleges. The Institute constitutes a unique framework in Israel and worldwide for preparing teacher educators and supporting their professional development" (p. 7).

My plan begins with a series of supported conversations among groups of 10-15 teacher educators meeting over six to twelve months and moving over time toward furtherance of an agenda for professional development among teacher educators. The participants in these conversations need not all be from the same institution or representing the same curricular/content area. I see each of these groups as a *mission-driven community of practice* very much like the AERA SIG: Self-Study of Teacher Education Practices or the New Teacher Center (NTC) (Achinstein & Athanases, 2005), both of which began in this way. Over time, these working communities of practice could come together virtually and in person as linked working groups of teacher educators and these groups could develop into regional or national networks of inquiry-oriented teacher educators dedicated to reclaiming, rejuvenating, and transforming teacher education in the United States.

These conversations would begin with one or two questions that are core to the practice of teacher education everywhere—driving questions about those commonplaces with which all of us contend:

• Time—How much time do our students actually spend in experimenting with the pedagogy of their content area?

• Routines/customs/comfort—What aspects of our programs surface in the first months of teaching, in the first years, later? How do we know?

• Connections – Where in our programs do our students draw on their apprenticeships of observation?

• Relevance – How do we know that our programs really prepare our students for their work in the field?

• Evidence—What claims can we make about our programs? About the power of teacher education?

Both the problem of practice and the challenge of succession could be effectively addressed through the development of a national network of local, mission-driven "communities of practice."

We need to be willing to learn from one another and to resolve to act together. This is hard work but need for such concerted action is extreme and the reward could be revolutionary change in teaching! As Hiebert, Gallimore, and Stigler (2002) suggest, local *mission-driven communities of practice* could serve as catalysts for change by making effective practice public, thereby enabling the development of a broad and deep conversation about various problems of practice in teacher education including the support and professional education of new teacher educators. In MOFET, the AERA Self Study SIG, and NTC, we already have models that offer us pathways into new forms of teacher education.

What the work of these groups demonstrates is that critical to radical and sustained reform of teacher education is commitment on the part of teacher educators to inquiry around our own practice and to publication of our findings locally, nationally, and internationally. As the teachers followed by Rust (2009) and Rust & Meyers (2006) have demonstrated, such inquiry accompanied by peer-reviewed publication leads to the raising of the level of practice within the group and across group members' institutions. What is likely to emerge is a powerful consensus about what works in the aggregate, a consensus that is informed by respect for and interest in the transformative power of examined local experience in the preparation and ongoing support of teacher educators. And the process of teacher education itself will change: It will be situated at the nexus between universities and schools. It will be grounded in continuing research and learning from local scrutiny of successful practice. And teacher education itself will be understood not as the beginning of a teacher's education but as the perpetual, locally-regulated professional education of teachers.

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