I was intrigued and inspired as I listened to Frances Rust give the keynote address at the 2009 annual meeting of the National Association of Early Childhood Teacher Educators Conference (adapted in the following pages). As I read the text of her speech, I am impressed with how timely and important her ideas are for the present and future of early childhood teacher education. Frances is not afraid to look outside our immediate field to recognize both threats and opportunities. She understands that the criticism of teacher education that Arne Duncan, U.S. secretary of education, has taken up (Duncan 2009) especially threatens early childhood teacher education. She also understands that knowledge about early childhood practice and early childhood teacher education can be enriched by looking within and beyond our ranks.

Frances has a distinguished history of conducting, supporting, and advocating teacher research. Her speech highlights the possibilities for teacher research done by early childhood teacher educators. Frances challenges each of us to use practitioner research to build a "viable bridge between research and practice." She lays out a powerful rationale for why we need to change, and she reminds us that we can (indeed, we must) generate new models of early childhood teacher preparation. Inviting us to share knowledge gained from our individual teacher research projects in our own "edge community of practice," Frances gives us a way to work together to control the fate of our programs and our field. For teacher educators and teacher researchers, Frances's words are at once an inspiration (we can make a profound difference for the future teachers we teach) and a call to action (we must generate research that redefines effective practice in early childhood teacher education).

— J. Amos Hatch,
University of Tennessee

Frances O'Connell Rust

Shaping New Models for Early Childhood Teacher Education

In earlier work (see Meyers & Rust 2008; Rust 2009), I have taken up the critical dilemma that challenges every profession—bridging research and practice—and I have proposed practitioner research—our students' and our own—as a viable bridge between research and practice. I have not backed away from that proposal or from my invitation to early childhood teacher educators to begin to gather data about the impact of our teacher education programs and of teacher education in general. However, in this article, I hope to take us in a related but different direction that may help us see why such inquiry is critical.

Setting the context for change

I am confident that the situation in which researchers and practitioners are on the same page can prevail in early childhood education. But I think it has to begin with a reassessment of what we know about how teachers are made! I think also that any reassessment has to proceed from our taking such knowledge into sys-

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The years of education before university are critical to the education of teachers because during this time teachers form tacit understandings of schools, teachers, teaching, and learning.

tematic, thoughtful research of our own practice—research that we do and carefully share with one another , research that pushes us toward thoughtful action. In short, we need to recognize and think through the past, contemplate the possibilities for a new present, and move ourselves to action, all the while keeping research and practice in synchrony so that practice is informed by research and research is informed by practice.

A number of reports on teacher education suggest a field that is in disarray and losing credibility with both policy makers and the public (Cochran Smith 2003; Hartocoltis 2003; Cochran Smith & Zeichner 2005; Darling-Hammond & Bransford 2005). Levine 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. (2006, 1)

Where teacher education fits in a teacher's professional development

Current research suggests that we frame a new definition of teacher education to see it as the whole of a teacher's professional life experience. This means that the years of education before university, which Lortie (1975) describes as the "apprenticeship of observation" are critical to the education of teachers, because during this time teachers form tacit understandings of schools, teachers, teaching, and learning by watching, listening, and experiencing teachers at work. Framing a new definition also requires that teacher educators take their work beyond the years of university-based course work and field experience currently equated with teacher education. The whole of a teacher's educational life should be viewed as integral to the practice of teacher education.

The time before formal teacher education

Kevin Ryan (1986) describes the time before formal teacher education as watching "the front stage behaviors of teaching"—a surface observation of teaching. But this period also represents a deep knowing of teaching. It stretches from early childhood to college and accounts for a significant portion of a teacher's development. The images of teaching developed during this time affect teachers' actions subsequent to their formal teacher education (Fuller 1969; Korthagen & Kessels 1999; Conway & Clark 2003; Korthagen, Loughran, & Russell 2006).

Becoming a good teacher takes a long time. According to Malcolm Gladwell's (2008) thesis, exceptionality in any field is developed in a supportive environment over 10,000 hours of long and intense practice (that's 417 twenty-four-hour days) that is relevant and intensely meaningful to the learner. The apprenticeship of observation could be considered the initial 10,000 hours of teacher education.

If we accept the argument that during the time before teachers enter the field they have already formed very clear images of what a teacher does and that their

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teacher education is already pretty far along, what are the implications for the preparation of early childhood teachers? Think about it—what if all or most of the images of schooling our students have internalized have nothing to do with the field they are about to enter? What if the students have only very dim memories of the time before third grade? Given that some may have watched early childhood teachers or worked as babysitters with young children or even helped to raise younger siblings, how likely is it that the majority of our students will have had anything close to actual deep, conscientious practice in early childhood settings approximating Gladwell's 10,000 hours? What if their major image of teaching is teachers occupying the center of attention and learners moving in unison, or worse? What do models like these mean for the care and education of young children, each of whom needs individual attention? What do they mean for the way learning environments are set up? What do such experiences imply about the ways in which early childhood teachers are prepared?

To make teacher education powerful in a teacher's personal and professional life, we need to think of teacher education programs as the beginning of a new 10,000 hours in which we call to consciousness teachers' prior knowledge—their apprenticeships of observation—and enable them to test their ideas and, in the process, construct new conceptual understandings in the context of practice. To do this, teacher educators must blur the boundaries of traditional teacher education by changing the ways in which teachers are prepared for the profession and supported over the course of their professional lives. The new ways should draw on what we currently understand about how adults and children learn. These new ways should enable our students to participate seamlessly in what Dewey called "the soul life" of the classroom (1938). This means achieving a kind of oneness with one's students, being able to read beneath the surface of their questions, being able to engender a deep respectfulness between and among teachers and students and their families.

In early childhood education, the effort to blur the boundaries between instruction and practice should not be difficult, since so many of us have learned to situate our students and our own practice in early childhood settings. But how many of us, particularly those in Research universities, are really able to embed our instruction in the actual autonomous practice of the individual preservice student? Can we know our students as we want them to know their students? Can we differentiate our instruction in ways that serve as a model of the caring, careful practice we want to mark our students' practice? Further, in the short period most have for student teaching, how will the teachers we are preparing come to know that soul life that Dewey describes? How will they come to the point of being able to hear the authenticity and depth of children's questions? And finally, if, as Berliner (1986) suggests, it takes 10 years to really become a teacher, how can we maximize the impact of preservice teacher education in this process?

I propose that we reshape, reconstruct the preparation of early childhood professionals and that we do this in ways that enable us to see and measure the impact of our work in both the short and long term.

Developing the edge

To begin with, finding ways to maximize the impact of preservice education requires that we, as teacher educators, revise our understanding of teachers' professional development from the small moment of formal teacher education to the continuum that begins with a teacher's first experience of schooling and continues throughout his or her professional life. Capturing tacit assumptions and beliefs formed during the apprenticeship of observation is critical and is not easily done in the traditional teacher education context, which is often removed from the day-to-day life of schools and child care settings. What is needed is a deep connection with educational settings outside of the university.

Developing relationships with schools and other agencies outside the teacher education program calls for a new conception of these relationships. To get a sense of such environments, I turn now to the remarkable work carried out in Israel by Malka Gorodetsky and her colleagues and in the United States and Europe by Etienne Wenger around the notion of edge communities (Gorodetsky, Barak, & Harai 2007) and peripheral communities of practice (Wenger 1998; Wenger & Snyder 2000) respectively, or what Zeichner (2010) describes as a "third space."

Edge environments, write Gorodetsky, Barak, and Harai (2007), are

> transitional environments that 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, and 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 ecological science, edge environments are "tender" zones—places easily affected by change in the original environments from which they draw their liveliness. In the world of social organizations—companies, schools, universities, churches—edge environments are equally tender. They require flexibility from leaders both within and outside the edge environment (see Wenger 1998; Wenger & Snyder 2000). But like their ecological counterparts, edge environments are places where strong, new, creative communities can emerge and flourish. They give support to the original communities from which they emerged and provide a place for the testing of new ideas and new forms of organization and relationship (Wenger 1998; Gorodetsky, Barak, & Harai 2007).

Two examples of edge communities are the descriptive review processes at the Prospect Center for Education and Research and the leader-scholar communities at Arizona State University (Carini 2009; Olson & Clark 2009). In the Descriptive Inquiry, teachers bring detailed descriptions of daily classroom life in order to study their practices and children with other educators at a summer or weekend Institute at Prospect Center. The collaborative inquiry gives teachers time and space outside of school to think about teaching and learn-

Edge environments are transitional environments that are known for their resilient, dynamic nature in coping with change and productivity

ing from multiple perspectives and in new ways. Arizona State University faculty introduced Leader-scholar communities (LSCs) into their doctoral program to "build the capacities of leaders in education to design innovations into their practices and make improvements in local education contexts." In LSCs, small groups of doctoral students and professors and an educator from outside the college work together as equals around student-driven inquiry projects in their workplaces. Both faculty and students are experts in the learning process, since the required knowledge to meet the action research goals is distributed among all members of the doctoral community. Such communities could offer what Zeichner (2010) describes as a much needed "third space" and thereby enable substantive, far-reaching, and much needed change in teacher education.

Teacher educators embracing a broader conception of their work must become adept at moving between these communities, both retaining the scholarly discipline required by the university and embracing the discipline of practice 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 their practice, to looking at whether and how their research and that of colleagues across the field is evident in their practice. A good example is Berk and Hiebert's (2009) documentation of their effort to upgrade elementary mathematics education at the University of Delaware). Finally, as Hiebert, Gallimore, and Stigler 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" (2001, 6–8). These elements should be so much a part of teacher educators' practice that our students will come to see them as critical elements of their own practice. In essence, we need to model the practice we want our students to incorporate into theirs.

I have always believed that early childhood education could and should provide the path for education at all levels.

Toward developing new models of teacher education

I have always believed that early childhood education could and should provide the path for education at all levels. I'd like to see us begin by exploring one or two questions that each of us will take back with us to our places of work. We could begin, individually and in small groups, by committing ourselves to inquiry around some of the commonplaces of teacher education: time, routines, connections our students make with their pasts and their field work or between their programs and their field work, program relevance, or evidence. Here are some questions around each of these. You can probably think of even more.

Time—How much time do our students actually spend in experimenting with the pedagogy of early childhood?

Routines/customs/comforts—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 the students draw on their apprenticeships of observation?

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

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

Let's see whether, in the next year or two, we can't commit to inquiry around our practice and in this way begin to discern what works in our programs and share what we are learning with one another. In so doing, we might begin with confidence to make claims about the impact of our work in both the short and long term, and thereby change what takes place in schools and child care settings for all children.

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