Quality teacher educators = quality teachers? Conceptualizing essential domains of knowledge for those who teach teachers

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Becoming a teacher educator involves more than a job title. One becomes a teacher educator as soon as one does teacher education, but one's professional identity as a teacher educator is constructed over time. Developing an identity and practices in teacher education is best understood as a process of becoming. Though the work of teaching shares much in common with the work of teacher education, the two positions are significantly divergent in important ways.

Keywords: Teacher educators; quality teaching; teacher educator preparation; teacher educator knowledge; knowledge domains for teaching

Preparing quality teachers is a global concern as all nations look to education to ameliorate social ills and advance nation building (Buchberger et al. 2000; International Alliance of Leading Education Institutes 2008; US Department of Education 2011). Indeed, a multitude of opinions about how teacher quality should be defined – or achieved – dominate educational discourse, and educators in many countries are immersed in debates regarding what teachers should know and be able to do in order to perform effectively. Still, amidst all this heightened attention to teacher preparation and quality, there is a noticeable silence about the preparation of teacher educators themselves (Ducharme and Ducharme 1996; Kosnik and Beck 2008; Loughran and Berry 2005; Margolin 2011; Smith 2005). Simply put, it is reasonable to assume that quality teacher preparation depends on quality teacher educators. Yet, 'few studies have looked at the professional experiences and induction needs of new teacher educators … new teacher educators are in general an under-researched and poorly understood occupational group' (Murray 2005, 68). And as the opening quote suggests, becoming a teacher educator is not a simple two-step process: from teacher to teacher educator. It goes without saying that teacher educators cannot teach what they do not know. But, what *should* teacher educators know, and *how* should they be *prepared* to assume their role?

This article addresses these critical questions as a way to stimulate dialogue around the absence of a codified knowledge base for teacher educator preparation. We begin by laying out the public policy context facing teacher education in the US as a way to frame the need for teacher educator preparation. We then draw upon work of

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international colleagues in order to illuminate the relevance of this issue beyond US borders. We suggest essential knowledge domains as one perspective on a knowledge base for teacher educators, and draw parallels between preservice teacher preparation and novice teacher educators' transition to their role as teachers of teachers.

Teacher education in the current US context

There is no shortage of condemnation of teacher education in the US (Berliner 2000; Cochran-Smith and Zeichner 2005; Walsh 2001; Zeichner 2006). Indeed, US public policy discourse is crowded with opinions about how teacher quality should be defined, what teacher preparation should include – or exclude – and *if* teacher preparation is even necessary (Berry, Hoke, and Hirsch 2004; Cochran-Smith 2001; Lasley, Bainbridge, and Berry 2002). The persistent perception that teaching ability is innate versus learned continues to fuel arguments that pedagogy is unnecessary, that good teaching relies primarily on content knowledge and 'verbal ability' (Goldhaber and Brewer 1995; US Department of Education 2002; Walsh 2001). This perspective has evolved to a hyper-emphasis on clinical practice – extensive immersion in the field, limited (or no) emphasis on research or 'theoretical' coursework, in favor of the practical and applied, and training in discrete skills (Lemov 2010; Otterman 2011).

A contrasting opinion is that learning to teach is complex and requires the acquisition of specialized knowledge and professional methods through formal study and apprenticeship (Cochran-Smith 2004; Darling-Hammond and Bransford 2005; Holt-Reynolds 1999; National Commission on Teaching and America's Future 1996; Shulman 1987). Refuted is the idea of learning to teach as imitative, a process of, in essence, *teaching to learn* through on-the-job training. This perspective agrees that discrete skills, and practical strategies that 'work', belong in teacher preparation, but conceptualizes teaching as more than technical; learning to teach is a decision-making process that demands the constant reinvention of practice so as to responsively meet needs presented by ever-changing contexts and diverse learners.

These debates are indicative of mounting dissatisfaction with teachers' preparedness and effectiveness and growing criticism about the utility of teacher education (Goldhaber and Brewer 2000; Goodwin and Oyler 2008; Walsh 2001), particularly preparation that is university based. The spotlight in the US has been shone on schools of education and the news has not been flattering. 'Blistering media commentaries' about teacher education (Cochran-Smith 2006, xxxii) have been accompanied by 'aggressive and persistent efforts to regulate and control teacher education from the outside' (Zeichner 2007, 37), including a recent federal government plan for teacher education reform. *Our future, our teachers* (US Department of Education 2011) lays out broad goals for reshaping teacher preparation that will hold programs to 'a clear standard of quality … that will support and further the transformation already underway in how we recruit and prepare teachers in this country' (2). This call for a 'sea change' in university-based teacher preparation includes closing poor-performing programs and overhauling 'traditional' teacher education in general.

This is the political landscape in which teacher educators are currently operating – one that has apparently lost confidence in university teacher education programs in favor of non-university alternatives and fast-track approaches into the classroom. Criticism of teacher educators has a long history (Goodlad 1990; Holmes Group 1986; Labaree 2004). In 1986, Lasley observed: 'Education professors are the most

maligned of academics. Their research is often viewed as lacking scholarship, their classes as devoid of substance, and their intellectual focus as too practice-based' (inside cover). Ironically, despite being maligned, education professors are still seen as one key to improving education. According to Ducharme and Ducharme (1996), teacher education programs and faculty are viewed as 'both the cause of all school problems and the source of many of its solutions' (705). On the latter point, Cochran-Smith (2003) called teacher educators 'the linchpins in educational reforms of all kinds' (5–6), while Hoban (2005) referred to them as the 'missing link' in education.

Preparing quality teacher educators, the 'linchpins' in educational reform

Without question, the evolving teacher education landscape will engender a corresponding change in teacher educators and their work. Given the critical role teacher educators can – and should – play in educational reform, attention to their preparation, knowledge, and quality becomes more important than ever. Yet, pressing and fervent discussions about teacher quality have not permeated the ranks of the teacher education professoriate – the literature (whether theoretical or empirical) offers minimal insight (Cochran-Smith 2005; Martinez 2008); professional organizations pay scant attention to priorities for teacher education (Kosnik and Beck 2009); and there does not seem to be a curriculum for the preparation of teacher educators (Buchberger et al. 2000; Dinkelman, Margolis, and Sikkenga 2006). The silence surrounding teacher educator quality has been noted by numerous international scholars who have written extensively about the need to examine teacher educator knowledge and preparation (Berry 2007; Korthagen, Loughran, and Lunenberg 2005; Koster et al. 2005; Loughran 2006), sought to fill the gap through self-study of their journeys as teacher educators (Bullock and Christou 2009; Williams and Power 2010; Wood and Borg 2010); and researched the lives and practices of teacher educators (Kosnik and Beck 2008; Lunenberg, Korthagen, and Swennen 2007). A common theme that can be drawn from this literature is that:

> the quality and the effectiveness of teacher education largely depends on the competence and expertise of teacher educators … [many of whom] … have never received education and training in methodologies of teaching, co-operation and learning appropriate for *adult learners*. (Emphasis in original, Buchberger et al. 2000, 57–58)

Given the general consensus among teacher educators that, as stated earlier, learning to teach for P–12 is complex and requires the acquisition of specialized knowledge and professional methods through formal study and apprenticeship, why does this fundamental principle not apply to those who prepare P–12 (Pre-Kindergarten to 12th grade) teachers? Why has there not been greater uptake in developing induction programs for teacher educators? A further aspect of this puzzling situation is that the primary qualification for becoming a teacher educator seems to be prior teaching experience (Berry 2007; Dinkelman, Margolis, and Sikkenga 2006; Lunenberg and Hamilton 2008; Zeichner 2005). Is this sufficient? The irony in this stark juxtaposition between perceived qualities for a teacher versus teacher educator cannot be ignored. Should the knowledge base and notions of quality for teacher educator preparation parallel those for P–12 teacher preparation?

The knowledge base for teaching: What should teachers who teach teachers know and be able to do?

Cochran-Smith (2003) argued, there needs to be 'more attention to what teachers of teachers themselves need to know, and institutional supports need to be in place in order to meet the complex demands of preparing teachers for the 21st century' (6). Our field needs to go beyond school pedagogy and develop a 'pedagogy of teacher education', one with definite priorities and corresponding strategies. Korthagen (2001) observed that being a teacher educator is difficult because rarely do teacher education staff 'collaboratively work on the question of how to improve the pedagogy of teacher education' (8). John Loughran (2008), currently the most prominent exponent of the concept of a pedagogy of teacher education, stated that such pedagogy 'involves a knowledge of teaching about teaching and a knowledge of learning about teaching and how the two influence one another in the pedagogic episodes that teacher educators create to offer students of teaching experiences that might inform their developing views of practice' (1180). Darling-Hammond (2006) argued for a pedagogy of teacher education, stating that there has been 'increased discussion of the structures of the [pre-service] program' but 'much less discussion about what goes on within the black box of the program' (19). Zeichner (2005) noted that teacher educators have tended to see their role as transmitting knowledge about good teaching to student teachers, which he felt is an inadequate pedagogy.

Not surprisingly, while professional standards for teachers are quite evident and plentiful, standards for teacher educators remain nascent. In the US, for instance, the Association of Teacher Educators has had teacher educator standards in place since 1992.[1] In the Netherlands, standards for teacher educators identify 'five groups of inter-related competencies needed for the role of educating teachers' (Murray and Male 2005, 136). In a comparison of teacher educator standards from the Netherlands, Australia, Israel and the US, Smith (2005) found 'a great overlap' among 'the main requirements' (182) including model teaching, research and scholarship, leadership in the profession, and ongoing professional development. These available standards for teacher educators are informative, but they are not consistently applied, do not necessarily represent consensus of the field, are quite broad, and focus more so on the *accomplished* teacher educator, versus beginners. Research on novice teacher educators reveals that the transition from teacher to teacher educator is complex and often lengthy (Dinkelman, Margolis, and Sikkenga 2006; Kosnik and Beck 2008) because prior teaching experience does not 'translate automatically into a powerful pedagogy of teacher education' (Bullock and Christou 2009, 75). Induction and mentoring are typically not available to new teacher educators (Kosnik and Beck 2008), leaving them to '[frame] professional identity through the lens of the ex-school teacher' (Loughran 2006, 13). Rather than 'simply being a teacher teaching in teacher preparation' (13), new teacher educators enter a 'second-order setting' distinctly different from the P–12 classroom that requires 'the dual focus of teaching about teaching' (Murray and Male 2005, 137).

Teacher educators need to: transcend the practicalities (and limitations) of discrete teaching skills and tools gained from previous teaching experience; and develop ways of thinking about and approaching teaching and learning that promote the application of a professional repertoire to a vast array of dilemmas, most of which cannot possibly be anticipated beforehand. Yes, standards for teacher educa-

tors are needed, but simply creating new or more numerous standards may not be enough to address the vacancy so apparent in teacher educator preparation.

Knowledge domains for teaching

We offer five knowledge domains for teaching (Bolin and Goodwin 1992; Goodwin 2010), big ideas that conceptualize learning about teaching as deep and broad, context specific as well as integrated. As lenses for thinking about and organizing for teacher learning – on the part of both novice teachers and novice teacher educators – they can help our students (and us) stretch beyond teaching as an imitative, technical process and push us all to view (and enact) good teaching as the consequence of numerous decisions and reflective practice which grow out of the dialogue, competing agendas, and varied contexts surrounding teaching. These knowledge domains for teaching are:

(1) personal knowledge/autobiography and philosophy of teaching;
(2) contextual knowledge/understanding learners, schools, and society;
(3) pedagogical knowledge/content, theories, teaching methods, and curriculum development;
(4) sociological knowledge/diversity, cultural relevance, and social justice; and
(5) social knowledge/cooperative, democratic group process, and conflict resolution.

Drawing upon earlier work (Goodwin 2010), we first describe the meaning of each domain within teacher preparation, and then offer some thoughts on how each domain could inform the preparation of teacher educators.

Personal knowledge

> Every student who enters a teacher preparation program has been through a laboratory in teaching and is filled with all manner of expectation, preconceived notion, implicit theory, assumption, and belief about teaching, learners, teachers, and schools. (Goodwin 2010, 22)

Much has been written about how the 'apprenticeship of observation' (Lortie 1975) informs teachers' personal and autobiographical knowledge of classrooms and holds the power to shape their decisions, practice, and pedagogical choices as teachers (Feiman-Nemser 2001; Goodwin 2002b; Richardson 1996). Thus, prospective teachers' beliefs and lived experiences become the foundation upon which teaching practice is built, tacit knowledge that can block learning unless consciously examined (Rios, Montecinos, and van Olphen 2007). Regardless of what their teacher preparation program may espouse, novice teachers will likely replicate what they experienced as students, teaching as they *believe* they should.

Teacher educators also enter the profession with many implicit theories about what it means to teach – and to teach well – given the many years they too have spent as apprenticeship observers (Murray and Male 2005). Those who have prior experience in P–12 settings naturally draw upon this professional experience as well, experience that is also very personal. With little in the way of preparation, new

teacher educators are left to invent their practice, to learn on the job, often in isolation. Their decisions and actions will most likely be based on past, meaningful experience – they end up teaching as they were (not) taught. Teacher educators do require formal preparation which includes 'restructuring their cognitive maps with reformed and/or new understandings' (Richardson 1998, 147). Through self-study, self-analysis and self-reflection, novice teacher educators can critically unearth the beliefs, (mis)conceptions, attitudes, assumptions, and biases embedded in their personal histories. This examination is not only important to teacher educator learning – to be open to alternative ways of doing and thinking – it is essential given the current criticisms of teacher education (i.e., educators are irrelevant and out of touch with the 'real' world). Becoming a teacher educator is also 'a process of re-constructing a professional identity' (Bullock and Christou 2009, 78) and redefining the 'emotional geographies' (Hargreaves 2001) that mark the transition from teacher to teacher educator.

Contextual knowledge

> It would be presumptuous for teacher educators to believe that we can identify a priori all that our student teachers will need to know in order to be successful with the wide variety of human beings with whom they will work and in the varied settings in which they will do this work. (Goodwin 2010, 24)

Classrooms – and therefore teaching – are ever complex and dynamic as they are constantly shaped and reshaped by unprecedented global mobility that ensures the mix of students, cultures, and languages in any one school will increasingly defy categorization, despite dogged attempts to do so. In the US, the influence of federal policy is greater than ever, and has, over the past decade, had an indelible (and constant) impact on how states and local communities assess students, design curriculum, dispense resources and measure teacher success. In this sociopolitical milieu, no single teacher education program, no matter how comprehensive, can possibly prepare each fledgling teacher for every situation that might arise. What programs can do, however, is teach students ways of thinking about and studying teaching and children, placing problem-solving, problem-posing, and data-gathering skills at the center of teacher preparation (Richardson 1996).

For teacher educators-in-preparation, contextual knowledge is multilayered. It begins with the classrooms, schools, and communities in which P–12 students are located. However, this contextual knowledge is not simply tied to physical environments, it is first and foremost knowledge *of* student teachers – who they are as *adult* learners, how they develop and grow, and how their histories and personal narratives shape the ways in which they perceive, define and do teaching. Finally, contextual knowledge for teacher educators must encompass the political, historical, structural, cultural, and so on. For example, within the US, accountability measures have focused teachers' attention on increasing standardized test scores, a reality teacher educators must recognize when teaching preservice students. Contextual knowledge propels teacher educators beyond discrete subject knowledge or instructional strategies to examine learners' needs as nested within multiple sociocultural-economic-political locations.

Contextual knowledge for teacher educators also includes knowledge gained through research, which presumes knowledge *of* research. Much has been written of the low status of teacher educators in the academy, the shadowed existence that non-tenure-line faculty experience, the lack of support teacher educators are afforded (Goodwin and Oyler 2008; Kosnik and Beck 2008; Lunenberg, Korthagen, and Swennen 2007; Zeichner 2005). At the same time, very little research exists that explicates the complex nature of teacher education work (Martinez 2008), which further supports perceptions of teacher education as a 'self-evident activity' (Zeichner 2005), a simple extension of classroom teaching. Systematically studying their own contexts will allow teacher educators to deepen knowledge about teacher education, build a knowledge base about and for teacher educators, and gain crucial credibility as scholars in the academy. Self-study is a growing practice among teacher educators internationally (Kosnik et al. 2006) and is, according to Zeichner, 'probably the single most significant development in the field of teacher education research' (1999, 8, cited in Dinkelman, Margolis, and Sikkenga 2006, 7). New teacher educators must be part of self-study communities for their knowledge, skills, and identity to evolve and develop.

Pedagogical knowledge

A much more powerful role for the teacher is as curriculum maker – one who designs a curriculum that grows out of the needs and interests of the students. (Goodwin 2010, 25)

Pedagogy is commonly defined as the art or science of teaching; instructional methods. Beginning teachers consistently display an insatiable desire for 'tool kits', or 'tricks of the trade' – things they can implement immediately even when there are few methods that will work universally. The security that a collection of 'how tos' may offer is temporary; greater, more long-lasting benefit comes from the ability to study a situation, notice what students need, and invent appropriate practices (Schoonmaker 2002), drawing from a repertoire of methods. Much more than the mastery of a series of steps, such a repertoire represents ways of *thinking* about what to do as subject knowledge, theories of learning and development, and methods of teaching are all brought to bear. Content, theories, and methods of teaching become the building blocks for curriculum development; they are blended together, thoughtfully integrated into coherent and meaningful learning experiences. When teachers are curriculum-makers, they can be contingently responsive to the needs and interests of students, not just state mandates.

At first glance, the application of this domain to teacher educators is obvious – teaching methods, pedagogical content knowledge, disciplinary knowledge, curriculum design unquestionably belong in any program of preparation for teacher educators. But this is all simply surface knowledge; 'teacher educators need to explicitly model the types of pedagogies that they hope their candidates will enact' (Bullock and Christou 2009, 84), and to develop a pedagogy of teacher education (Loughran 2006). Teaching teachers cannot simply be seen as a process whereby one's expertise as a classroom teacher 'will automatically carry over to one's work with novice teachers' (Zeichner 2005, 118). Pedagogical knowledge for teacher educators

transcends the doing of teaching to achieve the understanding of teaching about teaching with the requisite skills and dispositions.

Pedagogical knowledge for teacher educators is also essential considering the current political climate in which the teacher education profession finds itself. University-based teacher preparation programs in the US depend on state sponsorship and therefore are not in a position to resist state mandates. Indeed, 'no higher education specialty approaches teacher education in the degree of influence exerted by outside agencies, particularly state agencies controlling entry into public school teaching' (Goodlad 1990, 93). In recent years, the state's regulatory role has become even more stringent and teacher educators have been pressured to accept more mandates, meet stricter requirements, comply with more rules. As teacher preparation curricula have become more rigid and prescriptive, teacher educators have been 'deskilled' (Apple 1987; Hargreaves 2003), denied the opportunity to exercise their considerable skills and judgment in making decisions about what is taught and the instructional strategies most suited to their students. Yet, it is at this time of hyper-criticism that demands that teacher educators innovate, be curriculum-makers who can transform teacher education, and emerge as pedagogical authorities who are equipped to be active partners in any educational reform effort because they can be architects of change, not just passive implementers.

Sociological knowledge

> This knowledge domain is the most challenging for teacher educators and students alike because issues of race, class, cultural difference, and inequity are sensitive, loaded with meaning and emotion, and connect to each person's core beliefs and values. (Goodwin 2010, 26)

We have always lived in a diverse world; the only difference now is that globalization has brought the world's diversity into high definition – diversity is no longer 'out there' but right here. This means that none of us can ignore any longer the too many children who do not receive what they deserve, including a quality and caring education to help them develop into informed, thinking, moral, and empowered citizens. Traditional, assimilationist notions of citizenship are fast becoming obsolete in the twenty-first century as 'citizens' – particularly youth – adopt multiple, shifting, and hybridized identities (abu El-Haj 2007; Banks 2008). Undoubtedly, we need teachers who are diverse not just in how they look, where they come from, the language they speak, and the histories they embody, but in how they think, interact with *Other(s)*, and embrace a world where citizenship is 'differentiated' and is not simply 'legal' or 'minimal', but 'active' and 'transformative' (Banks 2008, 137). Diversity in and among teachers is not simply a noun or a state of being; diversity is a mindset, a concept, a way of thinking, perceiving, living, and teaching. It is a quality, characteristic, disposition, and perspective that all teachers, each person, must seek.

Our globalized world has implications for teacher educators; Merryfield (2000) posed the question, 'Do today's teacher educators have the knowledge, skills and commitments to teach for equity and diversity either locally or globally?' (430). Given the mono-cultural, mono-racial make-up of the teacher education professoriate (Ladson-Billings 2001; Merryfield 2000), and teacher educators' inadequate prepara-

tion and limited experiences with *Other* (Rios, Montecinos, and van Olphen 2007), these understandings are often absent. We cannot teach what we do not know.

New teachers need to confront their fears, prejudices, and misconceptions if they are to teach children of all races and ethnicities, children who have disabilities, children who are immigrants, migrants, refugees, (English) language learners, gay and lesbian, poor, academically apathetic, homeless, children who are different from them as well those who mirror them, and so on. Teacher educators must be skilled in helping them recognize, understand, and respond to a diverse student body. Teacher preparation must become uncomfortable, a space for interrupting low expectations, deficit thinking, racism, classism, xenophobia, and all other kinds of isms, if our intention is to develop teachers who can uphold the rights of children and are equipped to interrupt schooling practices that are discriminatory and harmful (Goodwin 2002a, 2002c). Can teacher educators do/be/aim for any less? This is a tall order which requires extraordinarily qualified teacher educators who are themselves comfortable with, knowledgeable about, and committed to social justice issues and emancipatory, anti-oppressive education practices.

Social knowledge

> we are depending on all our children to take hold of society and remake it with wisdom, compassion, love, and hope, to re-imagine a good life that includes rather than excludes, and to act in the interests of the common good. (Goodwin 2010, 27)

In a rapidly shrinking and increasingly complicated universe, where twenty-first-century dilemmas typically require the input (and imagination) of many minds, and work necessarily involves – indeed depends upon – others outside one's immediate environment, the ability to participate effectively in democratic, cooperative groups is essential. This requires teachers who are skillful at interacting with individuals and groups, recognizing that different dynamics are at work with each, and who are equally skillful at sharing this skill with students. The expectation also is that teachers with expertise in democratic group processes will more readily create classroom settings where cooperation, fairness, and equality are the norms. Children/students can experience such democratic environments and learn to live by and advocate for these basic principles of justice only if teachers are capable of creating them.

The social knowledge domain brings teacher educators face to face with the gravity of their work. They are not simply preparing new teachers for certification ... they are preparing teachers to remake the profession, ensuring that new teachers are ready to make a true and positive difference in the lives of young people – young people who will in turn initiate positive change. This means teacher educators have to help new teachers work in the now even as they stimulate and equip them to (re-) imagine the not-yet. Teaching has always been about changing the world; it has never been about changing the world alone. Teacher educators-in-preparation must learn how to break through the isolation that envelopes teachers and harness the collective energies of their preservice students so that they might be empowered to be change.

Interdependence on a global level is brought home daily as human struggles to live in harmony and achieve equity are paraded internationally on television and in newsprint. On a global scale, we are witnessing unprecedented sociological changes

that are having an impact on our schools and on what it means to teach well. Clearly, no teacher, no teacher education program, no school, can be immune to these social transformations as society exponentially grows in complexity. How can and should teacher educators respond? They must courageously address and explore these significant issues with student teachers in thoughtful ways so that student teachers can bridge theory (education for all) and practice (establish rich, inclusive communities). Undoubtedly, teaching is a political act, and yet it must be made clear that no political agenda is attached to this discussion of democratic classrooms and processes because the concepts underlying these notions are universal: equity, inclusion, diversity, cooperation, full participation, peace. These ideas are equally important on a world stage, and there is much work to be done if we are to not just survive but prosper and develop as a world family.

A final word

This paper began with two questions: what should teacher educators know and how should they be prepared to assume this critical role? In the US, teacher educators are being asked to change what they do to prepare teachers. What is patently clear is that teacher educators cannot change what and how they do, if they themselves are not equally committed to change, are bound by narrow state-imposed curricula, and are not supported in their institutions. The practice of teacher preparation has remained remarkably stable over the past century, and 'the culture of teacher education has shown itself to be highly resistant to new ways of conceiving knowledge' (McWilliam 1994, cited in Ladson-Billings 2001, 5). In order to rethink teacher education, we must recruit and support teacher educators who have a broad mandate, an expansive world-view, a collaborative approach, and the skills to enact a rich curriculum.

Previous work (Goodwin 2010) has shown that using these knowledge domains to structure and inform work with young teachers ignited parallel changes in both the thinking about teacher preparation – conceiving of knowledge and knowing differently – and in the *doing* of teacher preparation. It became clear that such a curriculum could not be 'delivered' in the usual way: through discrete units, often topic-focused courses, arranged in a sequence that culminated in some kind of field practice. Rather teaching had to be more sophisticated, conceptual and flexible, not tightly bound by subject, instructional method, or technique, and that teacher education needed to be conceptualized as holistic and integrated, teacher knowledge as inquiry based and focused on problem-solving. We suggest then that the knowledge domains could be useful in helping us think differently about what teacher educators should know and be able to do, which may, in turn, stimulate a similar reaction (i.e., change) in the doing of teacher educator preparation. However, the question of *how* teacher educators should be prepared and supported to grow into their new role is one that cannot yet be answered. This question can only be addressed if the profession first agrees on a fundamental principle – *that* teacher educators need formal preparation and induction.

Note

1. http://www.ate1.org/pubs/uploads/tchredstds0308.pdf.

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