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CHAPTER 2

PRACTICE MATTERS **Reflections on the** **Importance of Teacher** **Educator's Practice**

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INTRODUCTION

This chapter approaches the central questions of this volume from the perspective of teacher educator's practice. I make the deceptively simple, and some might say self-evident argument that great teacher educators are an essential feature of great teacher education programs. Though many educators are involved in most teacher education programs, this chapter focuses on those individuals who teach courses addressing the professional knowledge base of teaching.¹ Teacher educator's passion and pedagogy often play a formative role in new teacher's understanding of teaching and learning (Loughran & Russell, 1997). Along with a well-wrought conceptual framework that orients a program and thoughtfully integrated course and field experiences, the teacher educator's practice matters.

It matters for several reasons. First, good teacher educators embody theoretical ideas and principles; that is, they seek to "practice what they

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teach,” to ensure their pedagogy is consistent with their purposes as educators and with current learning theories. Second, good teacher educators provide a vision of the possible (Hammerness, 2003), particularly, when the goal is “adventurous,” reform-minded teaching (Cohen, 1989). Teacher candidates benefit from models and pedagogic images that counter those developed either in their apprenticeships of observation (Lortie, 1975) or as a result of lackluster teaching encountered in field experiences. Third, good teacher educators inspire those entering the profession. US popular culture venerates the exceptional teacher (Joseph & Burnaford, 2001), and teacher educators are no exception. Candidates yearn for inspiration; metaphorically speaking, they throw down a gauntlet, daring us to inspire them. They enter formal teacher education with a nascent sense of teaching as vocation (Hansen, 1995) and resonate to those teacher educators who passionately live out their vocation of teaching. In short, good teacher educators often serve as compass points or iconic images for new teachers because they model the habits of mind and heart that characterize the best in the profession.

Though research on teacher education has paid little attention to teacher educator’s practice (Zeichner, 1999),² I argue substantive attention to teacher educator’s practice is a fertile site for reform in teacher preparation. To take up an examination of teacher educator’s practice, I begin with a review of several conceptualizations of practice in teacher education and its relationships with theory. Second, I outline four aspects of teacher educator’s practice that matter. In the final section, I suggest how thoughtful attention to teacher educator’s practice creates a pathway to reform in teacher education.

Before moving on, however, it seems pertinent to affirm that the aim of all teacher education is sound, inspired practice or pedagogy. Put another way, teacher educators seek to shape candidate’s development such that they leave programs with the knowledge, dispositions, and pedagogical repertoire that enable them to foster deep understanding on the part of their pupils. The measure of a good teacher education program is the quality of practice its graduates enact. How to determine that quality is highly contested, as the current accountability movement in education attests.

Teacher candidates often arrive with relatively stable beliefs about teaching and learning, based on their prior experiences (Lortie, 1975; Kennedy, 1998). Many candidates initially perceive teaching as the straightforward carrying out of basic routines and strategies and as a relatively common sense endeavor. Though they anticipate encountering problems, they do not necessarily see teaching as a series of ill-structured problems or dilemmas that require wise judgment (Cuban, 2001). Indeed, they do not necessarily see their professional preparation involving mastery of a broad theoretical or conceptual base that informs their practice; nor, do they necessarily expect to engage in systematic reflection upon their attitudes,

beliefs, and prior experiences as a part of learning to practice; nor do they necessarily anticipate that they must learn to articulate and/or critique both normative and empirical arguments regarding the substance and manner of their practice. They also tend to approach learning to teach with a relatively simplistic notion of “learning by doing;” they believe that teaching is an art/craft learned through mimesis, in the company of a master.

Teacher educators, however, as a result of their clinical and scholarly experiences view teaching and learning as an endeavor characterized by uncertainty (Jackson, 1986). They recognize the complexity and enormity of the challenge to educate *all* children in manners we have historically reserved for a small segment of the overall community. To meet this ambitious challenge requires command of a substantial body of knowledge whose domains have been elaborated in multiple ways (e.g., Ball & Cohen, 1999; Wang, Haertel, & Walberg, 1993; Shulman, 1987). It requires a range of different kinds of thinking that have been detailed in the literature on teacher cognition, e.g., decision-making, practical reasoning, planning, evaluating, reflecting, (Munby, Russell, & Martin, 2001). Furthermore, given the power associated with decisions about how the next generation will be educated, it requires learning how to justify practice in thoughtfully convincing ways, often to suspicious audiences who hold different, often conflicting, views about the aims of education. Teacher educators also realize that learning to teach is in essence learning to make sound judgments and to engage in wise courses of action. Thus, a fundamental tension characterizes teacher education: Teacher candidates and teacher educators construct the tasks of both teaching and learning to teach in very different ways. Teacher educator’s practice plays a formative role in managing this tension.

CONCEPTUALIZING PRACTICE (AND THEORY)

This section takes up two questions: In what ways has the term practice been conceptualized in the context of teacher preparation? How do these conceptions relate to teacher educator’s practice? I approach these questions by first reviewing Dewey’s (1904, 1977) landmark essay, “The Relation of Theory to Practice in Education,” next discussing the theory of “realistic teacher education,” introduced by Korthagen and Kessels (1999), then summarizing Ball and Cohen’s (1999) notion of a “practice-based theory of professional education.” My purpose is to synthesize these conceptual arguments regarding the nature and substance of teacher’s knowledge and how it is learned and then to extend that to our understanding of the teacher educator’s role, as pedagogical actor, in helping teacher candidates develop and enact that knowledge.

Dewey's Legacy

Dewey's landmark essay "The Relation of Theory to Practice in Education" (1904, 1977) is an important starting point for a discussion of the relationships among practice and theory in the context of teacher preparation. Dewey wrote during a time when the establishment of universities challenged existing normal schools to be the site for formal teacher preparation. Dewey proposed that an extended "laboratory" experience ought to precede an "apprenticeship" experience. Dewey argued that the central problem of teacher preparation in the context of normal schools was the emphasis on the "technique" of teaching, which often narrowed or "fixed" teacher's attention on the superficial mastery of those procedures and actions that controlled children's behaviors. While not negating the fact that learning to solve problems of management is a necessary achievement for all teachers, Dewey felt that directing teacher training toward this end was a penny-wise and pound-foolish endeavor. In the press to prepare individuals who were proficient in management, teacher training neglected teacher's "intellectual responsibility" to be "students of teaching," to master principles of subject-matter and of learning. Dewey warned, "Unless a teacher is such a student, he may continue to improve in the mechanics of school management, but he can not grow as a teacher, an inspirer and director of soul-life" (p. 256).

Of fundamental importance to Dewey was that teachers develop mastery of their subject matter and of how minds develop. Dewey was quick to note that to grasp these principles did not mean that attention to theory had to be "abstruse" and divorced from practice; rather, he proposed that teacher candidates grasp these theoretical principles by examining their own experiences as learners and with children in everyday life followed by focusing their observations of exemplary classroom teachers upon how they engage students' minds. Dewey wrote,

The first observation of instruction given by model- or critic-teachers should not be too definitely practical in aim. The student should not be observing to find out how the good teacher does it, in order to accumulate a store of methods by which he also may teach successfully. He should rather observe with reference to seeing the interaction of mind, to see how teacher and pupils react upon each other—how mind answers mind...It should go without saying that the student who has acquired power in psychological observation and interpretation may finally go on to observe more technical aspects of instruction, namely, the various methods and instrumentalities used by a good teacher in giving instruction in any subject. If properly prepared for, this need not tend to produce copiers, followers of tradition and example. Such students will be able to translate the practical devices which are such an important part of the equipment of a good teacher over into their psychological equivalents; to know not merely as a matter of brute fact that they do

work, but to know how and why they work. Thus he will become an independent judge and critic of their proper use and adaptation (p. 260).

Though Dewey's argument to locate teacher preparation within the context of the university did prevail over its competitor, the normal school, his vision of professional preparation is still only partially enacted. Dewey's arguments, made nearly one hundred years ago, give us much to consider, both in terms of the aim of a classroom teacher's practice—to move children's minds—and the aim of practice in teacher education—to serve as an "instrument in making real and vital theoretical instruction" (p. 247). Dewey's legacy is several-fold. First, Dewey clearly aligned the preparation of teachers with that of other professions, notably architecture, engineering, medicine, and law. Though the theme of professionalism has its supporters and detractors, it has persisted since Dewey (Lucas, 1997). Second, Dewey privileged the notion of principled and scientific practice in contrast to intuitive practice; that is, he maintained that teachers ought to have reasons for their actions that are grounded in established "principles in the psychology, logic, and history of education" (p. 255).³ Without thoughtful reference to these principles, teacher's practice is more likely to be arbitrary, mechanical, or responsive to other's whims. Third, Dewey offered a progression for the introduction to practice, one that gradually immerses the candidate in practice; his progression contrasts with the two most common extremes found, either total immersion in discrete courses which is then followed by school experiences or total immersion in schools, preceded by minimal "boot camp" courses in foundations and methods.⁴ Fourth, he offered a vision for the context in which principled practice might fruitfully develop. The laboratory model proposed in this essay and later developed at the University of Chicago (Tanner, 1997) is in many ways a forerunner to the development of professional development schools promoted in current reform initiatives (Darling-Hammond, 1994; Pritchard & Aness, 1999). He presaged, in many regards, the reoccurring metaphors of developing "teaching schools" in the image of "teaching hospitals." Although, Dewey appeared more interested in laboratory settings as appropriate places for observation, rather than as places for candidates to practice or veteran teachers to renew their teaching. In short, in his efforts to improve the quality of teacher education by refocusing the superficial views of practice promoted in normal schools Dewey articulated a vision for integrating theory and practice.

Lagemann (1996) explains that one of the reasons Dewey's notion of integrating theory and practice was not fully realized in his time lies in the fact that after Dewey left University of Chicago, his successor, Charles Judd sought to establish and elevate the status of the field of education in universities by aligning it with psychology. Given Thorndike's influence on the field of psychology, the epistemology that prevailed and came to dominate the study of education in the 20th century was modeled after the experi-

mental methods of the physical sciences. While this helped to establish schools of education within research universities, it also laid the structural foundation for many of the challenges associated with current models of teacher education. That is, university-based researchers developed research findings that practitioners were expected to apply in their local contexts. The failure of this “theory to practice” model is discussed in the next section along with an alternative paradigm for professional education that reintroduces the kind of integrated professional knowledge for which Dewey argued.

Korthagen and Kessel’s Realistic Teacher Education

Nearly a century later, Korthagen and Kessels (1999), like Dewey, write at a time when the structure and purpose of teacher education is undergoing critical scrutiny and challenge. By 1999, the failure of the dominant, traditional “technical-rational”⁵ model of teacher education was well established. In the technical-rationality model, theory is introduced, preferably by university experts. Teacher candidates are then expected to “transfer” those understandings to school settings and “apply” the theory to their practice. The problems of such transfer are legion, and Korthagen and Kessels thoughtfully summarize empirical research explaining why such transfer seldom occurs. Rather than abandoning formal teacher education altogether, as its most critical opponents argue, or taking the less radical step of situating teacher preparation in school-based models where the aim is to provide on-the-job training, Korthagen and Kessels approach the theory/practice divide by calling for a “paradigm shift” in teacher preparation: They seek to jettison the dominant and traditional “technical-rationality model” in favor of “realistic teacher education.”

“Realistic teacher education” is a model of teacher education developed and rigorously studied in the Netherlands (Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001). The approach draws upon constructivist, inquiry-oriented “realistic mathematics education.” The momentum in realistic teacher education moves from practice to theory; that is, this approach accepts the basic premise that a teacher candidate must create understanding of teaching/learning through reflective inquiry into authentic problems encountered in field settings. Though consistent with constructivist views of teacher education that emerged in the 1980s and 1990s (e.g., Richardson, 1997; Schön, 1987), realistic teacher education addresses two theoretical weaknesses underlying most attempts at reflective teacher education. First, the model draws upon Greek concepts of *episteme* and *phronesis* as a means to explore the nature of theory that is relevant to teachers. Second, the model advances a theory of teacher learning that uncovers the relationship between teacher cognition and behavior.

Korthagen and Kessels refer explicitly to Plato and Aristotle’s concepts of *episteme* and *phronesis* to clarify the frequently muddled associations made with the word theory. Their clarification echoes the distinction Dewey drew between the different aims of practice and theory. *Episteme* refers to conceptual knowledge that is generalizable to a wide range of situations; epistemic knowledge “is based on research and can be characterized as ‘objective’ theory, theory with a big T” (1999, p. 7). By contrast, *phronesis* refers to knowledge that helps an individual perceive, understand, and respond to problems arising in a specific situation or context; it is “theory with a small t” (p.7). Korthagen and Kessels distill the difference between the two forms of knowledge: “...*episteme* aims primarily at helping us to *know* more about many situations, while the emphasis of *phronesis* is mostly on *perceiving* more in a particular situation and finding a helpful course of action on the basis of strengthened awareness” (p.7). Epistemic knowledge, then, characterizes the theory in the technical-rational approach to teacher preparation. Though both types of knowledge can help teachers understand and solve teaching/learning problems, *phronesis* provides insight and understanding that is closer to the problem, that respects and preserves its particulars, that aims for wisdom in action. Others have described this conception of knowledge “practitioner knowledge” (Hiebert, Gallimore, & Stigler, 2002). *Phronesis* is often represented and shared in narratives, metaphors, images, as well as propositional statements or practical arguments (Fenstermacher, 1994; Munby, et al., 2001). Thus, the first theoretical contribution of realistic teacher education involves invoking Greek philosopher’s distinction between *episteme* and *phronesis*, which in turn makes possible the normative argument that the proper aim of teacher education is the development of *phronesis*.

The second theoretical contribution of realistic teacher education is its model of teacher’s professional learning, which clarifies relationships among teacher’s cognition and actions. The model begins with the identification of three levels in learning: gestalt, schematic, and theoretical. They explain,

The Gestalt Level

If a person reacts without much thinking (in immediate teaching situations), the reaction is generally based on unconsciously triggered needs, values, meanings, feelings, and behavioral inclinations, which together form an inseparable whole called a *gestalt*. This is an extrapolation of the classical *gestalt* concept, which was mainly used to describe the organization of the visual field. This extrapolation is based on the fact that the classical *gestalt* laws (e.g., the law of closure) appear to be applicable to the functioning of teachers. Gestalts are very much colored by the needs of the person in the situation triggering the *gestalt*.

The Schema Level

If the actor reflects on the situation and the actions taken (this reflection may take place 'in-action' or afterward), and on similar situations, he or she may develop concepts, characteristics, principles, and so on, helpful in describing practice. Still, in order to be functional for practical use, the resulting schema should be of a *phronesis* rather than *epistemic* character. If someone wishes to develop a more theoretical understanding of a range of similar situations, then this will lead to an emphasis on *episteme*, and possibly on to the next level:

The Theory Level

This is the level at which a logical ordering is constructed in the knowledge formed before: The relations within one's schema are studied or several schemata are connected into one coherent theory. This conceptual knowledge is helpful to *understand* a certain class of situations on the basis of a logical framework, an understanding that is different from the ability to use this knowledge for *acting* in those situations. (Korthagen, et al., 2001, p. 205).

While the distinction among these levels is informative, the model's value comes from the way in which it explains first how individuals draw upon these different levels to make sense of situations and second how learning occurs as individuals transform knowledge from one level to others.

According to the model, teachers perceive and react in particular situations using gestalts. Teacher's professional learning occurs when a gestalt is examined publicly and explicitly. Through such reflective deliberation, "teachers can become aware of the elements that constitute these gestalts and the relationships between these elements" (Korthagen & Kessels, 1999, p. 10), a process that leads to the formation of schema. Schema, can in turn be critically reflected upon, to lead to the theory level. "After some time, knowledge on the schema or even the theory level can become self-evident to the teacher, and the knowledge can be used in a less conscious 'intuitive' way. It is as if the whole schema or theory has been reduced to one gestalt. Van Hiele (1986, p. 46) calls this 'level reduction'" (Korthagen & Kessels, 1999, p. 10).

In this recursive model, for which there is a growing body of empirical support, "learning about teaching is a process of developing adequate gestalts and not a question of learning to apply adequate theories from academic textbooks" (Kessels, et al., 2001, p. 201). Though theory has a place in the learning process, it follows gestalt formation and schematization; and, through level reduction, it becomes integrated into the unity of perception, interpretation, and action. Furthermore, the model takes into account the immediate needs, emotions, and values associated with

sense-making. As such, it recognizes that not all aspects of learning to teach fall within a rational/analytical framework.

Unlike Dewey, who said little about teacher educator's practice, proponents of realistic teacher education are explicit about the model's consequences for teacher education. As Korthagen and Kessels (1999) point out,

The level model...clarifies that a teacher educator should not try to induce change on the theory level, but should go down and start on a lower level, especially the gestalt level. This means that the student teacher should first gain more experiences that are suited to developing adequate gestalts (p. 12).

They also recognize that gestalt formation is not an exclusively cognitive endeavor. They argue,

The student teachers' needs, feelings, concerns, values, and so forth should be taken into account. This opens up a whole array of necessary teacher educator competencies, for example, the competency to create a safe learning environment by means of *acceptance*, *genuineness*, and *empathy*. The ability to stimulate *concreteness* is another very important competency, as is the tool by which differentiation within the gestalts is promoted, leading to schematization. *Confrontation* should not be avoided, but a balance between safety and challenge is needed in order to make confrontation effective (Korthagen & Kessels, 1999, p. 13).

The development of *phronesis* and adequate gestalt formation (with attending schematization and theory building) occurs through a steady diet of reflective thinking. Korthagen and his colleagues (2001) present an extensive repertoire of pedagogical tools and heuristic devices that they have implemented and studied over the years to foster such reflection. Realistic teacher education offers the field a specific pedagogy of reflection, one that articulates well with a substantial literature on how to foster reflection (e.g., Zeichner & Liston, 1996).

Realistic teacher education offers a bold vision of teacher education that is impressive in its depth and explanatory power; it offers a fresh synthesis of a broad body of work regarding the aims, content, character, and methods of teacher education. As a model of teacher learning, it is consistent with situative views of learning to teach (e.g., Borko, Peressini, Romagno, Knuth, Willis-Yorker, Wooley, Hovermill, & Masarik, 2000; Putnam & Borko, 2000) and it accounts for many of the challenges commonly associated with teacher socialization (Lortie, 1975; Zeichner & Gore, 1990). The body of empirical work that supports the model forms a solid base, though more studies remain to be done. It is surprising that scholars of teacher education in the US seldom reference realistic teacher education. Perhaps it is the politicized and highly charged nature of debate

regarding the structure and content of teacher education in the US, perhaps it is a matter of access to European journals of teacher education, perhaps it is that US teacher educators are engaged in a parallel dialogue. Whatever the reason, US teacher educators will find a serious discussion of realistic teacher education provocative. The next section, examines the work of two leading US scholars of teaching and teacher education policy/reform and their arguments for a practice-based theory of professional education.

Ball and Cohen's Practice-Based Theory of Professional Education

Though Ball and Cohen's (1999) discussion pertains to professional development for experienced teachers, the arguments advanced apply to preservice teacher education as well. Ball and Cohen's point of departure is the ambitious purpose of current reform agendas, namely to ensure that diverse learners achieve high levels of understanding. The nature of teacher's practice must change radically if the reforms' aims are to be realized. Though professional development has the potential to help teachers enact these reforms, the fragmented and superficial approaches that dominate are wholly unsuited to this task. They compare the prevalent one-day workshops, with their attention on swift implementation of focal strategies, to "yo-yo dieting" (p. 4). Equally problematic, the culture of teaching promotes norms of individualism, autonomy, and uncritical discourse, which "reinforce the conservatism of practice, with its didactic approaches to teaching and facts-and-skills conceptions of knowledge" (p. 5).

Ball and Cohen advance a proposal that radically rethinks the character and content of teacher's professional development experiences. First, Ball and Cohen point out that in the last three decades, research on learning has redefined and extended the knowledge base for teaching; they enumerate five interwoven domains of knowledge (subject matter, children, cultural differences, learning theory, and pedagogy), noting that "the sorts of knowledge and learning [require] that teachers move far beyond their own personal and educational experience" (p. 10). Second, they assert that the above domains of knowledge must be learned "in and from their practice." They explain,

Since such knowledge is situated in practice, it must be learned in practice. To propose otherwise would be like expecting someone to learn to swim on a sidewalk. Reading situations, the moves, the decisions—each of these is contextualized and shaded with subtleties of time, tone, person, topic—and it is in the unique combinations of these that the professional knowledge that we have been discussing can be created. Professional development could be sub-

stantially improved if we could develop ways to learn and teach about practice in practice (Ball & Cohen, 1999, p. 12).

Their language calls to mind *phronesis*, for it is focused upon the perceptual and on the particular. Ball and Cohen further argue that the concept of "in practice" implies that those in the profession have both a shared understanding of which practices are most essential as well as publicly developed standards for what comprises good performance. Third, they claim that learning "in and from practice" calls for a "pedagogy of investigation" (p. 13). Features of this pedagogy include strategic documentation of practice; promotion of and tolerance for disequilibrium; systematic attention to and analysis of student thinking; a discourse of conjecture, interpretation, and critique; and a community of practitioners.

Ball and Cohen's proposals to locate teacher's development "in practice" and to develop a "pedagogy of investigation" are conceptually consistent with realistic teacher education and with Dewey's understandings of the aims of theory and practice. Though the proposal lacks a specific psychological model of teacher learning, such as that elaborated by realistic teacher education, it draws attention to a much-needed shift in the cultural norms of the teaching profession. Making teacher's practice public and open for scrutiny is a radical change, but one that is needed to transform a practitioner's knowledge base into a professional one (Hiebert et al., 2002). Finally, their proposal, like realistic education, places significant expectations on teacher educators. Ball and Cohen assert,

In addition to being insightful students of practice themselves, these teacher developers would need to understand teachers as learners and have a repertoire of ways to engage different teachers in fruitful professional learning. They would need to be good listeners, so they could hear and respond to the wide range of reactions and stances that teachers might bring to a professional development setting. They would need to be able to establish rapport and trust with a variety of learning professionals, and be able to help them form relationships, even a sense of community, with one another. All of this would depend on extensive knowledge of teaching and learning—of both school students and professionals—and considerable interpersonal skill (Ball & Cohen, 1999, p. 28).

All three conceptual essays synthesized in this section take as a given that the aim of education is deep, flexible understanding, and they assume that classroom teacher's practice is integral to that educative process. Collectively, the essays live in the same epistemological camp. They elaborate a shared vision regarding the substance and syntax of teacher's professional knowledge, i.e., *phronesis* or practical wisdom; they articulate the psychological and cultural/socialization challenges associated with learning to practice; they emphasize the importance of context(s) in learning professional practices; and they foreshadow the enormous demands placed on those

who teach teachers. Together, the essays suggest that good teacher education never strays far from the practice itself; though theoretical knowledge, is of value, it must be integrated with, rather than applied to, practice. All three emphasize that learning to practice involves sustained inquiry, a reflective stance; in short, Dewey's call to be a "student of teaching" is lived throughout a professional life. The essays point out that learning to teach requires intellectual abilities that are not necessarily cultivated in prior academic experiences. Finally, in all three, the vision of professional learning promoted has serious implications for both the structure of teacher education programs and the practice of teacher educators. Though reforms that address structural aspects of teacher education programs are essential, I focus in the next section upon teacher educator's practice.

ASPECTS OF TEACHER EDUCATORS' PRACTICE THAT MATTER

I extend the arguments reviewed in the previous section and apply them to outline four important aspects of teacher educator's practice that make a difference in his or her ability to help candidates perform in ways that are educative: knowledge, pedagogy, discourse, and manner. Taken together they suggest why teaching teachers is a daunting endeavor.

Knowledge

There is no way around this fact: Good teacher educators must have command of an astonishingly broad terrain of knowledge about education. As a starting point, they must have knowledge about school-based teaching/learning that is of the *phronesis* type. That is, they must be able to discern with fine attention the particulars in situations, to determine when a situation is routine or non-routine, to parse those routine responses/actions into efficient steps, to make explicit the reasoning and deliberations behind a chosen course of action, to explain why a choice of action is the most proper in that situation. In addition to this practical wisdom, however, they must also understand and evaluate epistemic knowledge that shapes present understanding of learning and our systems of education. They must know the substantive organization of domains of epistemic knowledge and the rules of evidence by which epistemic knowledge is indeed generated. They must possess a meta-cognitive knowledge of how they know what they know; in terms of realistic teacher education, they must unpack the content of the gestalts they have formed and how those relate to epistemic knowledge. Finally, if all that weren't enough, they must also understand the needs of adult learners, the developmental learning

process of becoming a teacher, the social-psychology of group dynamics, and they must know about curriculum materials that support reflection in and upon practice (e.g., appropriate exemplars, artifacts, and cases). In sum the good teacher educator's knowledge base traverses many domains; moreover, teacher educators must hold this knowledge in different forms (conceptual/practical, epistemic/*phronesis*, paradigmatic/narrative) and be able to move fluently in and out of different registers.

Pedagogical Repertoire

Russell (1997) observes in the title of an excellent essay, "Teaching teachers: How I teach IS the message." He offers us a provocative statement. Given that a teacher educator's actual pedagogy is a substantive part of the curriculum, a second aspect of teacher educator's practice is the range, depth, and character of his or her pedagogical repertoire. With regard to range, a good teacher educator is able to model expertly teaching practices as they are accomplished in the company of children/youth (e.g., writing workshop, inquiry-based science labs, socratic seminars, etc.); in addition, the repertoire includes pedagogical moves that scaffold candidate's perceptual discernment, inquiry, and critical reflection. In short, they must have a sophisticated repertoire that encompasses both a pedagogy of understanding in the school subjects and a pedagogy of investigation/reflection for teacher education. Good teacher educators show depth in their repertoire when they can enact many and varied approaches that respond to needs of diverse learners, both child and adult learners. Finally, good teacher educator's practice is consistent in its character; in other words, the practices modeled and encouraged through reflective activities are consistent the most current learning theory, consistent with images of democratic classrooms, and consistent with inclusive, culturally-responsive views of practice.

Discourse of Annotation and Reflection

A third aspect of good teacher educator's practice is the ability to provide a thick, running commentary on his or her practice and to scaffold such commentary on the part of candidates. The teacher educator's practice is in fact a shared reference point for all. Offering a discourse of annotation and reflection is in some regards merely one approach within a teacher educator's pedagogical repertoire, yet I find it so essential to promoting teacher learning that I highlight this pedagogical move. Through this move, the teacher educator voices the inner speech/thought that

shapes professional judgments. As an analogy (with due acknowledgement to Schön), imagine what it would be like, as a novice, to listen to an experienced architect comment while creating working drawings; such commentary would provide insight into the subtle discriminations the more expert practitioner makes, the balance between aims and outcomes within the particular constraints of the task, the choices made as they are weighed against professional standards of excellence. If the quality and character of one's professional judgment are the hallmarks of a good practitioner, then new candidates need opportunities to listen to teacher educators exercise and even develop that judgment. Repeated exposure to this kind of commentary also reinforces the norm that practice must be examined publicly by members of a community of practitioners.

Providing a thick and running commentary involves pausing in action, displaying publicly one's practical reasoning, then resuming action, thus resembling Schön's "reflection-in-action." Or, it can be offered some time after events have occurred, like Schön's "reflection-on-action." What is important is that the commentary addresses a lived experience that the teacher educator and candidates have shared. Such think and running commentary has the potential to go awry; for instance, musing aloud in front of a group about how to connect with a resistant candidate or how to encourage a domineering candidate to listen could backfire. Yet, if handled delicately and thoughtfully a discourse of annotation and reflection makes visible and accessible to candidates what they may not be able to unravel for themselves if they merely experience elegant practice.

Manner

As with teachers in p-12 contexts, teacher educator's sense of vocation (Hansen, 1995) plays a significant role in shaping the learning experience. Candidates hone in on teacher educator's manner. Fenstermacher (1999) offers a helpful definition: "Manner encompasses those traits and dispositions of the teacher that reveal his or her character as a moral or intellectual being" (1999, p. 2). Teacher candidates notice and value traits such as passion, care, tolerance, respect, fairness, open mindedness, genuineness; conversely, they resent displays of control, arrogance, and hypocrisy. They value those teacher educators who are intellectually demanding and who are able to communicate the moral dimensions of their aims and practice. On the one hand, it seems so obvious to draw attention to manner, for if you listen in the hallways, it is a fixture of teacher candidates' conversations about their experiences in teacher education courses; on the other hand, I raise the notion of manner because I so seldom hear teacher educator's talk about their work in terms of the impact of their manner on the candidate's learning. Teacher educator's manner is a focal element in the

curriculum, for through it candidates have a window onto the culture of the profession, e.g., attitudes toward bureaucracy, resolving conflict in constructive ways that deepen collegial relationships, how one lives out both the darker and lighter shades of vocation. Teacher educator's manner indeed matters.

For a teacher educator to be masterful in all four aspects is, in my experience, rare. I advance these four not to promote an evaluative standard, but rather to stimulate dialogue about what are common, definitive aspects of good teacher educator's practice. The four outlined serve as a starting point for such a dialogue; they also provide a possible conceptual framework to study teacher educator's practice and how it shapes candidate's learning.

PRACTICING WHAT WE TEACH: A PATHWAY TO REFORM IN TEACHER EDUCATION

To conclude, I offer a modest proposal: Substantive attention to teacher educator's practice is a pathway to reform in teacher education. The preceding sections have laid out the kind of professional knowledge teachers need, the ways in which it is learned, and four aspects of teacher educator's practice that matter. The structures of many teacher education programs have evolved in ways that make it difficult to learn to practice, especially in the ways that they fragment professional knowledge in the sequence of courses and in the separation one finds between school and university experiences. Though most recent proposals to improve teacher education offer a mix of conceptual and structural reforms (Tom, 1997), some of the most recent proposals are aimed directly at structural features, e.g., making teaching a clinical profession (Hinds, 2002) or building up more professional development schools (Pritchard & Aness, 1999). I argue that even if we build teacher education programs differently, if we do not attend to the development and practice of teacher educators, such structural reforms are not likely to realize their full potential.

Substantive attention to teacher educator's practice will involve a stronger research base on the nature and impact of good teacher educator's practice. For example, we need to understand more fully which pedagogical moves are most effective at provoking candidate's learning, how teacher educators learn to enact a sophisticated pedagogy of investigation/reflection, how teacher educators draw upon their understanding of the needs of adult learners to guide their pedagogical moves. It will also involve far more serious attention to the preparation of teacher educators. At a minimum, schools of education can be more systematic and thorough in how they support and mentor their doctoral students and their junior faculty whose primary teaching assignments are in courses for teacher can-

didates. It will also mean that schools of education examine carefully the multiple demands placed on its faculty who are most involved in teacher preparation (Ducharme & Ducharme, 1999). For teacher educators to develop, they will need both the expectation and the time to apply to their teaching the kind of discipline and rigor they give to their scholarship. Substantive attention will have the benefits of renewing the passion and vocation of teacher educators, for in matters of teacher preparation, the teacher educator's practice matters. Profoundly.

NOTES

1. I realize that this focus on those teaching in foundations and methods courses directs attention away from many essential players involved in the preparation of teachers, i.e., classroom teachers who invite teacher candidates into their rooms, often for extended time periods; faculty in arts and sciences courses who help shape candidate's understandings of academic disciplines and ways of thinking; and even the candidate's elementary and secondary teachers who are often influential in candidates' decision to choose teaching as well as in the images of practice they seek to emulate. This focus also assumes that university-based teacher educators will play a decisive, though not exclusive, role in teacher preparation, for they have dedicated themselves to in-depth study of the extensive knowledge base of the teaching profession. What distinguishes professional preparation from apprenticeships is the recognition that it is the development of a robust understanding of the profession's knowledge base.

2. Several notable exceptions, however, are *The Lives of Teacher Educators* (Ducharme, 1993), *Teachers Who Teach Teachers* (Russell & Korthagen, 1995), *Teaching about Teaching* (Loughran & Russell, 1997) and the three-volume set of case studies of excellent teacher education programs (Darling-Hammond, 2000).

3. It is essential, however, to understand that Dewey's use of "scientific" is markedly different than current US policy calling for practice that is grounded exclusively in "scientifically-based research." At the time that Dewey wrote this essay Thorndike had not yet prevailed in transforming the field of education into a "scientific" one, where research designs from the physical sciences were the model for all educational research, e.g., isolation and control of variables, randomized trials, etc. In Dewey's view, a theory more closely resembled what current educators might call a principle that reliably guides action toward the proper aims of education; it was not rigidly deterministic, for there was always room for critical examination when a principle failed.

4. Alan Tom (1997) offers another model that has merit. He argues for an inversion of the typical pattern: He suggests that teacher candidates should begin with thoughtfully supported student teaching, thereby creating a context for university-based courses that follow.

5. Korthagen and Kessells point out that this term was coined originally by Donald Schön (1987).

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