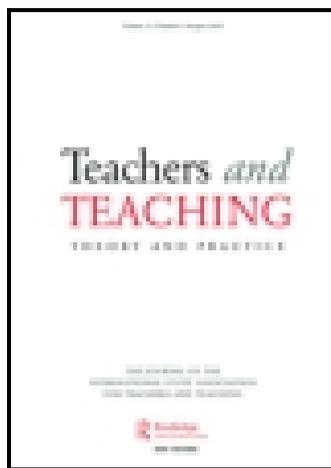


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Andrea K. Martin^a & Tom Russell^a

^a Faculty of Education, Queen's University, Kingston, Ontario, Canada

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Seeing teaching as a discipline in the context of preservice teacher education: insights, confounding issues, and fundamental questions

Andrea K. Martin* and Tom Russell

Faculty of Education, Queen's University, Kingston, Ontario, Canada

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Analysis of our own experiences teaching in preservice teacher education programs leads us to a range of insights, issues, and questions associated with the potential of seeing teaching as a discipline. We begin with the reality that teaching and teacher education appear to students as easy activities, while those who actually do them see them as quite complex. The unexamined influence of every student's inadvertent apprenticeship of observation is explored as an obstacle to seeing teaching as a discipline. We also consider the influences of the history of schooling and the history of educational research. We close by considering the role of parody and paradox in making it difficult to see teaching as a discipline and by calling attention to the importance of interrogating our acts of teaching.

Keywords: teaching; teacher education; learning to teach; discipline of teaching

How strong is our tendency to think of teaching as a stand-alone activity that occurs independently of learning? How often do we think of teaching as an effort to present information to others with little regard for what they make of it? This restricted view of teaching permeates our culture, created and sustained by our own experiences at school. The end result is a pervasive sense of teaching that is far removed from the insights and understandings that most teachers would like their students to achieve. Teaching tends to look easy, and it looks even easier when we meet a teacher who focuses on learning and who works to develop students' understanding of essential concepts. We appreciate teachers who can help us achieve understanding, but we rarely have incentives or contexts in which to understand either how a good teacher teaches or how a student who achieves understanding actually learns as a result of teaching.

While teaching and learning are pervasive, often discussed, and sometimes made the objects of humor, they are rarely taken as important topics that deserve careful analysis and interpretation. One unfortunate result is that even the possibility of viewing teaching as a discipline in its own right is hidden from view. Our extensive enculturation in schools and universities tends to ensure that teaching merits little in the way of careful thought and close scrutiny. In this article, we explore a range of issues associated with the benefits and challenges of viewing teaching as a discipline.

*Corresponding author. Email: martina@queensu.ca

Teaching is anything but easy

While teaching appears easy, high-impact teaching is anything but easy. Decades ago, Lortie's (1975) sociological analysis of the work of teachers inspired the term *apprenticeship of observation* to capture the many ways in which years of school experience create pervasive images that teaching is easy. Because teachers rarely have time or reason to explain to their students why they are teaching in particular ways, we construct simple but erroneous images of teaching, much as we construct simple but erroneous understandings of the physical world from our everyday experiences of motion. The hard work of teaching resides in the careful analysis of how each student is or is not learning and in the careful analysis of how that learning is influenced by the way one is teaching. Society's inability to recognize that good teaching is highly disciplined helps to explain why the fundamental patterns of teaching have changed very little despite numerous and eloquent calls for changes that move beyond teaching as telling.

In our universities, every faculty member has a discipline that is understood well after many years of increasingly intensive study and research. Teaching is an expected duty, an obligation and, for some, perhaps a necessary evil, but the primary focus of the university tends to be on research. While suggesting that teaching be viewed as a discipline would require that people have two disciplines, seeing teaching as a discipline creates many opportunities for discussion and collaboration that are not available when attempting to speak across the wide range of departmental disciplines. Can we really afford to continue to regard teaching as an activity that we think about when time permits or crises arise? Can we afford to continue to teach as we were taught, leaving unexamined our personal assumptions about teaching and learning? Can we afford to ignore opportunities to understand in disciplined ways the complex relationship between teaching and learning?

Teacher education is anything but easy

Labaree has noticed these issues and tensions and offers some relevant insights, taking the rare and unusual position that teacher education may face even more challenges and complexities than teaching itself:

If teaching is indeed a practice as difficult as I have portrayed here, then there is no form of professional practice that is more demanding, except, perhaps, teacher education. We ask teacher education programs to provide ordinary college students with the imponderable so that they can teach the irrepressible in a manner that pleases the irreconcilable, and all without knowing clearly either the purposes or the consequences of their actions. Is it any wonder that these programs are not seen as smashing successes? But that is not the end of the problem confronting teacher educators. In addition, they face a situation in which the profession of teaching is generally seen to be relatively easy. And this perception is not simply characteristic of the untutored public; it is also endemic among teacher candidates. (2000, p. 231)

Labaree goes on to point out that what those learning to teach already know has never been analyzed and this reality makes it difficult for teacher candidates to see preservice teacher education as useful. He suggests that an analytical (or disciplined) approach to teaching and learning may be resisted actively by teacher candidates.

[Teacher candidates'] apprenticeship of observation shows them a lot about what teachers do but almost nothing about why they do it. Teaching from this observational

and nonanalytical perspective appears to be simple action, guided either by custom (this is the way teaching is done) or by nature (this is the kind of person I am). In neither case would teacher preparation be necessary or even useful. What students don't see is the thinking that preceded the teacher's action, the alternatives she considered, the strategic plan within which she located the action, or the aims she sought to accomplish by means of that action. These are the things that teacher preparation programs seek to teach, and legitimately so, but in so doing, they run into enormous resistance from teacher candidates who don't think they need this kind of professional education. (p. 232)

We add that it is possible that experienced teachers and teacher educators would also resist disciplined approaches to the analysis of teaching and teacher education, not deliberately or intentionally but subconsciously and unintentionally, because they too are likely to have begun their careers without understanding the potential of careful attention to classroom interactions. Nuthall reminds us of the importance of attending closely to the quality of these interactions by carefully examining the daily routines that comprise classroom life:

It is important to search out independent evidence that the widely accepted routines of teaching are in fact serving the purposes for which they are enacted. We need to find a critical vantage point from outside the routines and their supporting myths. ... The approach I have learned to take is to look at teaching through the eyes of students and to gather detailed data about the experiences of individual students. The account of my journey has been an account of the way this combination of objective and subjective research data has forced me to identify and question the myths by which we understand teaching and learning in schools. (2005, p. 925)

If we seek to foster students' deep understanding of the discipline in which we teach, it is at our peril that we ignore our default assumptions about teaching and learning, particularly those captured in the familiar transmission practices of lecturing interspersed with examinations. Only by disciplined study of our personal teaching practices in relation to our past student experiences that is informed by explicit statements of our goals for student learning can we begin to achieve that which we are often criticized for failing to achieve. Creating engaging and productive learning experiences that encourage students to learn even more requires a set of skills and understandings that emerges not by accident but by disciplined study of one's own teaching.

One of the many challenges to viewing teaching as a discipline involves the realities of work inside most faculties of education. Those who work in teacher education necessarily come from a wide range of familiar academic disciplines, including the many subject areas of the school curriculum and disciplines such as history, psychology, sociology, and philosophy, often referred to as foundational requirements for teachers. Few teacher educators take teacher education itself as a primary area of personal research activity. Indeed, many teacher educators could be described as 'accidental teacher educators' (Lynn Thomas, personal communication, August 6, 2008) who were never formally trained as teacher educators, who teach teachers because it is expected of them, and who focus their research on aspects of one or more curricular or foundational subjects. If teaching is to be viewed as a discipline, then teacher education must be one of the central venues in which it is practiced and researched. Most faculties, schools, and colleges of education fall far short of being a central venue for the study and practice of teaching as a discipline.

Fundamental problems in learning to teach

Teacher education tends to be viewed by academics in various disciplines as a rather bizarre activity that rarely achieves a reputation for the rigor and quality to which they aspire in their own research. This interpretation is encouraged by our culture's inability to recognize the many benefits that could arise from viewing teaching as a discipline. Darling-Hammond identifies some of the fundamental problems associated with learning to teach:

- (1) *The problem of the 'Apprenticeship of Observation'*: Learning to teach requires new teachers to understand teaching in ways quite different from their own experience as students.
- (2) *The problem of 'Enactment'*: Learning to teach requires that new teachers not only learn to 'think like a teacher' but also to 'act like a teacher.'
- (3) *The problem of 'Complexity'*: Learning to teach requires new teachers to understand and respond to the dense and multifaceted nature of the classroom. (2006, p. 35)

The first problem, concerning the apprenticeship of observation, is intriguing but rarely addressed explicitly in planning and enacting a preservice teacher education program. 'A significant challenge teachers face is that they enter teaching having already had years of experience in schools' (p. 35). Darling-Hammond cites Lortie's seminal sociological analysis of teaching:

They are not privy to the teacher's private intentions and personal reflections on classroom events. Students rarely participate in selecting goals, making preparations or post-mortem analysis. Thus they are not pressed to place the teacher's actions in a pedagogically oriented framework. (Lortie, 1975, p. 62)

Given that prospective teachers are indeed armed with extensive personal observations of teaching with little or no access to teachers' rationales for acting as they did, then it is only through a disciplined approach to teaching and learning that they may begin to move beyond the familiar and simplistic view of teaching as telling. Much the same can be said for those about to begin academic teaching careers in our universities. While the experience of listening is familiar and can be comforting and reassuring, prospective teachers soon realize in practice that they learned very little from the experienced teacher, accidentally turned teacher educator, who announces, 'I'm going to tell you everything I know.' Teaching cannot be told.

Thinking and acting like a teacher requires students of teaching to seek to identify and make sense of the *complexity* inherent in any classroom. Perhaps more than anything else, identifying complexity requires the skills of listening to learners, reading each one's behaviour for clues to unique learning needs and responses so that innovative teaching actions can be created to address those unique needs. For students of teaching to begin to think and act in such a way requires much more from teacher preparation than training; it *requires educative experiences purposefully embedded in meaningful pedagogical situations*. (Loughran & Russell, 2007, p. 222, emphasis in original)

The apprenticeship of observation, named by Lortie (1975) and brought to the fore recently by Darling-Hammond (2006), is as apparent in the actions of teacher educators as it is apparent in the actions of those learning to teach. Deep knowledge of the

extensive research on learning and classroom interactions is one thing; the ability to put such knowledge into practice in ways that allow future teachers to understand its significance is quite another. Therein lies a central challenge of preservice teacher education as well as the promise of viewing teaching as a discipline.

Accounts of 40-year careers in education and educational research provided by Nuthall and Perone offer additional insights into the challenges of preservice teacher education and the promise of viewing teaching as a discipline. Nuthall (2005) sets teachers the challenge of openly confronting their practice and questioning their taken-for-granted routines and rationales. Unless and until they are willing and able to do so, there is little likelihood of change and little likelihood that teachers will 'pay more than passing attention to the experiences of individual students' (p. 920).

Let me make it clear that this article is not intended to blame the many sensitive and creative teachers who work strenuously to promote the wellbeing of their students. There are very good reasons why most teachers stay within the ritualized routines of teaching. As teachers establish with their students, at the beginning of each year, their ways of using these routines, they become the basis on which teacher and students understand and can predict each other's expectations and actions. They give meaning to the many hours that students and teachers spend together, shaping and being shaped by each other's actions. The idealization of these routines and the wide acceptance of the supporting myths make it almost impossible for teachers to think or act otherwise. (2005, pp. 924–925)

This challenge is applicable in equal measure to prospective teachers at all levels and also to teacher educators.

Perrone exhorts teacher educators to be far more aware of how they go about crafting their practice, and this suggests yet another set of reasons for viewing teaching as a discipline:

Those of us who work in Education schools, where most of our students are preparing to teach or are teachers seeking additional challenge, confirmation, or revitalization, must be conscious of our teaching and all that can be learned from it. How do we meet our students? As if it is an encounter of persons wishing to learn from one another? As a dialogue in which the students' questions matter? As a process aimed at extending learning in fresh directions? Do we ask our students to read the most challenging materials we know about? And in relation to what we ask our students to read, who are the writers? Do they represent various intellectual and cultural traditions? Does their experience sufficiently mirror the diversity of our society? And how does all this relate to children and young people in the schools? to the ways schools are organized? to curriculum, pedagogy, and the social realities that surround school practice? I actually have at least 101 additional questions. Even though I have been at this work for forty years, my journey is still in progress. I am still learning. We should all be still learning. (1997, p. 651)

Additional confounding factors collude to challenge and undermine the notion of teaching as a discipline. These factors include the influence of the history of schooling and the influence of the history of educational research. Issues of parody and paradox lend further complications.

The influence of the history of schooling

The field of education continues to combat some of the ghosts of its past. A brief review of the history of schooling in the twentieth century reveals how many of these perceptions originated and how they continue to exert some degree of influence. The

normative values of democracy and productivity were hallmarks of the early twentieth century and considered defining characteristics of an educated population (Schwartz, 1996). If teachers were professionally trained, they could ensure that these values were appropriately inculcated. To this end, normal schools (often with a laboratory school attached) were established to prepare teachers. Gender demarcations were rigid; a prevalence of female elementary teachers, male secondary teachers, and male administrators (and male university professors). The prevailing view saw women as better suited to the narrow intellectual range and adaptability required of elementary teachers and therefore they were paid less than their male counterparts at the administrative and secondary levels (Coffman, 1911, as cited in Schwartz, 1996, p. 4). Perceptions of elementary school teachers as nurturing females neither needing nor having subject-specific expertise ('jack of all trades, master of none') and secondary school teachers as knowledgeable in subject matter specializations continue to prevail insidiously and impact on status differentials attached to teaching at the elementary and secondary levels. These types of perceptions also undercut complex conceptualizations of the multifaceted knowledge base of teaching and counter understanding teaching as a discipline.

The Industrial Revolution had a powerful impact on schooling. The cult of efficiency, adopted from the factory model, transferred to schools. This required efficient operations, cost-effectiveness, attention to output, and elimination of waste. 'It is the business of the school to build its pupils according to the specifications laid down' (Cubberley, 1916, as cited in Lincoln, 1992, p. 81). Once schools were seen as being in the business of producing an educated product with efficiency, standardization of curriculum followed. By extension, standardized textbooks would further complement the production process, literally and figuratively. Standardization contributed to the deskilling of teachers, in particular elementary teachers who were already subject to gender bias.

The 1960s brought a resurgence of teacher-proof materials and prescriptive curriculum documents, fueled by the launch of the Sputnik satellite. To keep up with the Soviets, North American students required more science and mathematics. Spearheaded by the National Science Foundation and the US Office of Education, curriculum reforms were aimed at preparing students to think critically and independently and to problem-solve (Darling-Hammond, 1997). Curriculum experts were subject-specific and, consequently, teaching itself was narrowly circumscribed and held to be specific to each discipline. The 1970s saw a continuation of standardization of instruction through the proliferation of behavioral objectives and educational outcomes. The mechanistic, production-oriented language loudly echoed what had been heard decades earlier. Learning was quantifiable; teaching was measurable and teachers could be held accountable for their students' output, contingent on demonstrable performance based on clear evidence of objectives achieved (Darling-Hammond & Snyder, 1992).

Despite reform efforts and research linking intellectually challenging curricula and inquiry-oriented teaching to students' learning gains, the back-to-basics movement predominated during the 1970s and 1980s (Darling-Hammond, 1997; Darling-Hammond & Snyder, 1992). In a sobering comment, Darling-Hammond (1997) charges that, in every era of change, 'progressive reforms gave way to standardizing influences: in the efficiency movement of the 1920s, the teacher-proof curriculum reforms of the 1950s, and the back-to-basics movement of the 1970s and 1980s' (p. 13) that reduced learning to the 3Rs, delivered in traditional fashion. Ironically,

paralleling this movement was a proliferation of humanist approaches with their multiplicity of foci that were, in part, a reaction to behaviorism, as well as significant work in the area of cognition, and the development of accompanying research methodologies and paradigms.

Throughout the 1990s and into the twenty-first century, there have been repeated calls for reform to schools and to teacher education. In addition to calls for reform, we hear bandied about concerns about standards, outcomes, expectations, and accountability – yet again, echoes from the past. Add to these, benchmarks, high-stakes testing, performance measures, and the picture that emerges is one where learning is quantifiable and teaching effectiveness measurable. Curriculum within this context becomes an end, rather than a means and, as Apple (1990) remarks, increasingly politicized and dictated by legislative mandates.

This brief review of historical contexts of the twentieth century begins to reveal how the history of schooling has rested on propositional knowledge and a defined, ‘disciplined’ curriculum. Despite pedagogical shifts and enhanced understandings about learning and cognition that tell us that learning is enhanced when learners are active, engaged, and challenged, we suggest that perceptual knowledge, acquired by first-hand and observed experience, is frequently devalued, if not ignored, by ‘school.’

The influence of the history of educational research

When we turn to the history of educational research, we see a similar emphasis on propositional knowledge and a similar devaluing of procedural knowledge, again with significant consequences for conceptualizing teaching as a discipline. Timperley and Alton-Lee (2008) describe the relationship between teacher education and research as ‘vexed,’ as a result of the uncertain and fragmented status of initial teacher education in (and out of) universities (p. 330). The perception by the academy at-large of faculties of education can range from peripheral, when compared to the ‘real’ work of university researchers to disdainful, if not hostile. Doyle (1990) succinctly characterized these perceptions, ‘Professors in academic departments identify with their disciplines rather than teacher preparation and are frequently antagonistic towards teacher education programs and students’ (p. 7). Certainly the tensions between episteme and phronesis are well established. Korthagen and Kessels (1999; Kessels & Korthagen, 1996, 2001) provide a helpful conceptual base for understanding the relationship between theory and practice and propose a revaluation of practical knowledge. This revaluation should emphasize practical wisdom (phronesis) rather than scientific understanding (episteme). Scientific knowledge is seen as universal, built on certitude of theoretical principles, and justified by principles, rules, or theorems, what is often described as declarative or propositional knowledge, Fenstermacher’s (1994) ‘knowing that.’ In contrast, practical or procedural knowledge is particular; certitude arises from knowledge of particulars and is context-related; and it is justified by a perception of the particular that is internal and rooted in experience(s). One could argue, however, that the complexity inherent in practical knowledge, in ‘knowing how,’ belies certitude.

Schön’s (1983) now classic metaphor of the ‘high, hard ground’ where research and research-based theory and technique reside and the ‘swampy lowlands’ where technical solutions or resolutions are irrelevant, if not impossible, continues to resonate.

Shall the practitioner stay on the high, hard ground where he can practice rigorously, as he understands rigor, but where he is constrained to deal with problems of relatively little

social importance? Or shall he descend to the swamp where he can engage the most important and challenging problems if he is willing to forsake technical rigor?

There are those who choose the swampy lowlands. They deliberately involve themselves in messy but crucially important problems and, when asked to describe their methods of inquiry, they speak of experience, trial and error, intuition, and muddling through.

Other professionals opt for the high ground. Hungry for technical rigor, devoted to an image of solid professional competence, or fearful of entering a world in which they feel they do not know what they are doing, they choose to confine themselves to a narrowly technical practice. (pp. 42–43)

Educational research has witnessed a paradigm shift in research on teachers' knowledge that has moved the focus to the lowlands of practice and brought to the center the experience of teaching itself and teachers' perceptions, interpretations, and understandings of that experience. Shifts in research methodology to the use of case studies, action research, and teachers' narrative acknowledge teachers' voices and describe more immediately and personally the authority of their experience. The emergence of self-study of teaching and teacher education practices as a distinct research genre (see Loughran, Hamilton, LaBoskey, & Russell, 2004) has provided an avenue to explore more intimately, but also more purposefully, the relationship between teaching and learning 'so that alternative perspectives on the intentions and outcomes might be better realized' (Loughran, 2006, p. 174). Thus self-study offers teachers and teacher educators the prospect of becoming 'better informed about not only the nature of learning from a given pedagogic situation but also the possibilities for developing appropriate alternatives for future experiences' (p. 174). Loughran (p. 174) uses Korthagen and Lunenberg's (2004) contrast between traditional research and self-study research to draw attention to the question of how useful educational research is to practice.

Traditional research seemed to focus more on the question of how isolated variables in teaching and learning relate to each other, but generally tells little about the questions of what this should mean for the often different and complex situations teacher educators have to deal with. As Hager and McIntyre (2000) remind us, at the core of expert practice is the need to make subtle judgments in unique situations. (p. 434)

Nevertheless, Zeichner (2007) reminds us that those who see the 'gold standard' in educational research as experimental trials will, in all likelihood, never accept the contributions of self-study research in teacher education or the value of any form of small-sample study, irrespective of quality. The National Center for Education Research, for example, makes its position clear that it will only accept and support rigorous and relevant empirical research, evaluation, and statistics as contributions to the solution of significant education problems in the USA (see <http://ies.ed.gov/ncer/>). The historical divide between practitioner inquiry and traditional academic research continues to be fueled by the current 'political realities of standards, testing, external controls, and deregulation' (p. 43), leading Zeichner to a sobering conclusion:

If the self-study researchers in teacher education continue to underemphasize what is learned in their research and how this knowledge contributes to what we know about specific issues, the inquiries of teacher educators will continue to be ignored in the broader research community and by policy makers. (p. 44)

Conceptualizations of teaching as a discipline could be compromised, perhaps irreversibly, unless self-study researchers and other qualitative researchers link their research directly and explicitly to major programs of educational research (see Ball & Forzani, 2007).

Parody and paradox

An ironic twist is added as parody emerges, further undermining conceptualizations of teaching as a discipline. As Perrone explains, all too familiar to prospective teachers is the adage, ‘Do as I say, not as I do.’

Yet so much of what students experience in their education, especially at the collegiate level, is lectures, one after another. Teacher education students often discuss with me, mostly with disdain, all the lectures they receive in various education courses about the power of cooperative learning, the need to listen carefully to their students, the importance of the dialogue that Paulo Freire wrote so much about, the constructivist nature of most learning that matters. They have no problem understanding there is a good deal of parody here. (1997, p. 651)

This view contributes to the frequently voiced critique by teacher candidates that their practicum experiences were the most significant part of their teacher education program and their concomitant devaluing of their on-campus courses. Segall’s (2002) ethnographic study, which followed six prospective teachers through their year-long program, made an important contribution to understanding the preservice experience. With few exceptions, their comments about the overall university-based portion of their program were negative:

‘An example of how not to do things’ (Jocelyn); ‘Nothing was connected and the workload was outrageous’ (Mary); ‘A whole lot of work to keep us busy until we actually go out to the school and learn stuff’ (Charles); ‘So tightly packed that there’s little time to reflect on what we’re learning and doing. It just gets to be a matter of reading such and such a book and writing such and such a paper and then forgetting it and moving on to the next thing: factory production, assembly-line knowledge’ (Ron). (p. 40)

The course that was the exception, their social studies methods course, drew praise because their teacher was enthusiastic, passionate about his subject, and:

enjoys us as students ... well not just as students. I really get a sense of being treated like his colleague, and I’ve heard other people say that too. It’s refreshing. He’s an excellent facilitator. He’s good at moderating discussions and making sure everybody has a turn to speak without being heavy-handed and forceful about it (Ron). (p. 40)

Our own research based on several years of focus group data, collected at the end of an eight-month postgraduate preservice teacher education program, has taught us the value of listening to those learning to teach. Our findings (Martin & Russell, 2005) are consonant with Segall’s. Prospective teachers’ on-campus experiences were perceived as worthwhile if they were taught by professors who modeled good practice, displayed passion, and engaged them. These professors were less concerned with ‘*the answer*’ but instead ‘developed the questions with us ... and sometimes you don’t leave the classroom with an answer, but maybe more questions, and that’s leading you towards finding the answer’ (p. 19). Conversely professors who did not ‘genuinely care about what they’re doing and really [don’t] want to prepare you for next year ... wiped out

... everything that we learn [about] what a good teacher is and how [to] create a positive learning environment' (p. 19). Our prospective teachers saw 'purpose' and 'relevance' as the defining characteristics of worthwhile assignments in courses where professors' commitment was demonstrable. However they roundly criticized classes that lacked leadership and where their time was taken up with 'busy work' and 'filler' (p. 19). And, as did Segall's participants, ours asked for 'substance' but described 'touching on so many issues but not really going into any depth or details' (p. 19). When parody appears rampant, we suggest that the representation that emerges of teaching and teacher education is, alas, undisciplined.

Parody and paradox often accompany one another. One of the prospective secondary teachers in a focus group made this remark:

As important as the query behind the pedagogical theory is, and as interesting as it can be, we all seem to want the skills. We want to be able to walk away with concrete things that we can do in the class[room]. (Martin & Russell, 2005, p. 19)

Appreciating the role that paradox plays can help us to understand some of the more dissonant elements attached to teaching practice that are also embedded in seeing teaching as a discipline. Drawing on Wilkes (1998), Loughran (2006) outlines how paradox may initially appear to be a contradictory assertion but, by digging more deeply, multiple levels of meaning can emerge, along with new possibilities. For example, although it may appear counterintuitive not to provide answers for struggling students, enabling them to find the information they need can be a more empowering strategy.

It is painful for me to listen to them struggle I often have to resist mightily what I want to do, what my gut tells me, and fix the momentary crisis. But I have learned that if I become the source of answers, then I often enable students to stop searching for themselves. (Wilkes, as cited in Loughran, 2006, p. 69)

Palmer (1998) embraces paradox because it produces a 'creative tension' that generates awareness. Since teaching and learning require a higher degree of awareness than we typically possess, this tension becomes 'a way of holding opposites together that creates an electric charge that keeps us awake. Not all good teachers use the same technique, but whatever technique they use, good teachers always find ways to induce this creative tension' (p. 74). Palmer poignantly describes his struggles with paradox:

when my students refuse to dance with me, my strength turns to weakness. I get angry, although my relational nature often keeps me from expressing my anger in clean and open ways. I become silently resentful and start stepping on the toes of my unwilling dance partners, occasionally kicking their shins. I become closed and untrusting and hopeless far more quickly than need be, simply because they have rejected my gift. (p. 72)

He speaks of his desire:

to learn how to hold the paradoxical poles of my identity together, to embrace the profoundly opposite truths that my sense of self is deeply dependent on others dancing with me *and* that I still have a self when no one wants to dance. (p. 72)

If we are to see teaching as a discipline, then we must enable our prospective teachers to embrace the paradoxical poles of their teaching identity and to reach some degree

of accommodation with the discomfort engendered by the uncertain spaces of teaching and learning. So, too, must we as teachers or teacher educators also learn to acknowledge, accommodate, and accept these tensions.

Interrogating the acts of teaching

Teaching is a relational and intentional act. Palmer (1998) points out the attendant paradox when he suggests that to become a better teacher he ‘must nurture a sense of self that both does *and* does not depend on the responses of others’ (p. 73). This, in turn, requires an inward journey into one’s own nature while also seeking the help of others ‘in seeing myself as I am – another of the many paradoxes that abound on the inner terrain’ (p. 73). Such a journey can be informed by close attention to the *conceptual moves* that we and our students make. We see *conceptual move* as a generalization to all disciplines of the phrase *philosophical move* often used by philosophers in their discipline. We see a conceptual move as a shift in the way one thinks about a particular concept, and thus learning can be seen in terms of increasing the richness and complexity of one’s conceptual understanding in a particular subject domain. Most teachers are familiar with and inspired by the moments when students ‘see the light’ after much effort to work out the meaning and significance of a new concept, particularly when it involves correcting an existing concept that is inadequate. Similarly, viewing teaching as a discipline would include attending to conceptual moves in one’s understanding of teaching and learning – understanding of one’s own concepts of teaching as well as understanding of the complex processes by which students are learning. Teacher education often involves helping prospective teachers better understand the concepts of the disciplines they will be teaching. An even greater challenge for teacher education involves initiating conceptual moves that will increase the richness and complexity of educational concepts that would-be teachers typically do not even realize they hold. Thus as teachers work to foster student metacognition in subject areas, teacher educators need to work to foster teacher candidate metacognition in the discipline of teaching.

We are writing 25 years after Schön (1983) introduced the concept of reflection-in-action in professional learning, thereby launching teacher educators’ considerable enthusiasm for the goal of teachers becoming ‘critically reflective practitioners.’ Perhaps we have paid a high price for not linking this worthy goal to viewing teaching as a discipline. Schön was pointing us in the direction of that view, for his focus was not on the rather amorphous goal of reflection but on the very specific goal of *reframing*, coming to see educational events in new and more productive ways that suggest new actions whose results can be studied. Reframing involves a conceptual move that begins with awareness of a new way of viewing a teaching-learning situation and continues with greater understanding of how one had been viewing the situation previously. Conceptual moves and metacognition are certainly elements of the accepted disciplines, and we see them as essential and productive elements in viewing teaching as a discipline.

Seeing teaching as a discipline requires interrogating the space between actions and intentions, between teaching and learning, and between theory and practice. For it is in that space that confounds arise, paradoxes emerge, and dissonance reigns. To interrogate that space requires a critical perspective, disciplined scholarship, and what Ball and Forzani (2007) describe as a willingness to ‘embrace unapologetically the worlds of both practice and scholarship’ (p. 537). Mason proposes that education

is about ‘being, about caring (for both the subject and the students).’ In this regard, it is:

unlike any other disciplines, which have Popperian third world repositories of knowledge. As such it does not increase by having more facts added to it, but rather matures as people construct and develop their teacherly selves, starting where they are and progressing to greater and greater support for the being of their students. (John Mason, personal communication, June 7, 2008)

We see enormous promise in seeing teaching as a discipline. This must be accompanied by inquiry that is itself disciplined if we are to make the conceptual moves required to reframe our understanding of teaching as discipline and explore the benefits of this new perspective.

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