

John Loughran
Mary Lynn Hamilton *Editors*

International Handbook of Teacher Education

Volume 2

 Springer

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John Loughran • Mary Lynn Hamilton
Editors

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Editors

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ISBN 978-981-10-0367-7 ISBN 978-981-10-0369-1 (eBook)
DOI 10.1007/978-981-10-0369-1

Library of Congress Control Number: 2016938695

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Printed on acid-free paper

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Part III

Teacher Educators

Volume 1 through Parts I and II of the Handbook of Teacher Education has illustrated a progression from an exploration of the complexities of teaching and teacher education to an examination of the knowledge and practice of teacher education. In so doing, the focus has sharpened to create a strong and concentrated look at possible understandings of teaching and teacher education. In this volume, Part III opens up for consideration teacher educators, their many possible roles in the preparation of teachers and their approaches to inquiry. The section continues to pursue issues from an international perspective which is particularly important in challenging notions that teacher educator identities are universal in nature. This section is designed to engage the reader in a deep consideration of teaching and teacher education and support the uncovering of new ways to ponder and articulate such understandings.

Chapter 15

Personal Practical Knowledge of Teacher Educators

Vicki Ross and Elaine Chan

Introductory Vignettes

Seated in the front row of a crowded auditorium, we, Elaine and Vicki, listen to Dr. Jean Clandinin's (2015) address as she receives a Legacy-Lifetime achievement award from Division K of AERA. Jean recounts the early days of her academic career, sharing with us her experience as a beginning doctoral student reading about research on teachers and teaching. She tells us that she remembers feeling irate about how teachers were portrayed in the literature. Teachers she encountered in the research literature were presented as not knowing very much, and criticized for failing to fulfill their professional responsibilities of passing curriculum on to their students. This representation was at odds with her own experience working with teachers in schools. These tensions, in turn, formed the seeds of her career-long inquiry into the intersections of personal and professional experience in teaching.

For Vicki, a shift came as she read, in a 'Foundations of Curriculum' course, an article in which Kathy Carter (1990) critiques the portrayal of teachers in the existing research. Carter wrote of the kind and good, but hapless, teacher played off against the kind and good, and researcher-approved, teacher in studies that dot the education research field. This article, for Vicki, awakened the sense of how teachers are storied by others in the field of education research. The teacher in her sees this as an insidious device, structuring much of the reading she was doing in the field of mathematics education reform at the time. This kind of portrayal, she believes, dismisses the knowledge of teachers, and places researchers in a position of judgment over those in the field.

Elaine recalls feeling intimidated in doctoral classes as literature about the lives of teachers – a life she had lived herself as a classroom teacher – was discussed. At the time, Elaine did not feel adequately knowledgeable to contribute to discussions about the work of teaching despite the body of knowledge she had acquired through her own experience

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working in schools: she felt inadequate – silenced – and severed from her teacher knowledge/self. It was not until she found a space in the literature addressing the experiences of immigrant and minority students in North American schools that she found a place where her experiences could inform her later work with teachers as a teacher educator.

These vignettes capture tensions buried beneath the surface of the field of research focusing on teacher knowledge. These recollections provide an opening through which we introduce the notion of personal practical knowledge (PPK) and, then, explore complexities of knowledge and knowing in the lives and work of teacher educators. To do so, we draw heavily on existing literature based upon and addressing personal practical knowledge (Connelly & Clandinin, 1988) to better understand tensions at play in the field of teacher knowledge, and to offer research literature and methods that value, document, and fold in details of teachers' experiences to inform understanding of the work of teacher educators.

We begin with a definition of the term 'personal practical knowledge', proposed by Connelly and Clandinin (1988), as an epistemological stance whereby teachers are recognized as knowing and knowledgeable. An epistemological stance wherein knowing is practical grounded in experience and best captured narratively. This stance conceives of teachers as both knowing and knowledgeable. Connelly and Clandinin (1988) argue in this framework that knowledge grows out of experience and that teachers construct knowledge through their interactions with students, teacher colleagues, parents, and others within and beyond their classroom and school contexts. This body of 'teacher knowledge' (Clandinin & Connelly, 1996) gained through personal and professional experiences termed 'personal practical knowledge' (Connelly & Clandinin, 1990) differs from the 'knowledge of teachers' (Clandinin & Connelly, 1996) gained from expert sources such as professional documents and sources in that it is unique to the circumstances and contexts of each teacher. This conceptualization of teacher knowledge melds epistemology and ontology; thinking and being are intertwined within the individual, and grounded by the premise that who we are is what we know. Such knowing is visible in the stories teachers live, tell, retell, and relive in their classrooms (see Clandinin & Connelly, 2000).

Directions

Our goal in this chapter is to review the development of the term personal practical knowledge as it emerged in research on teacher knowledge and their practical knowing of teaching. The chapter traces the avenues this has taken since its origin concept (its expansion and clarification as it has been applied in research). In particular, we examine and illuminate its applicability for capturing teachers' knowing in increasingly diverse school contexts. Finally, we turn to an exploration of the ways in which it has been applied to the knowledge of teacher educators.

First we underscore the value of teachers gaining an understanding of the term personal practical knowledge, and becoming wakeful to themselves as knowing and

knowledgeable. We examine the development of this knowledge framework within the conversation of research on teaching and teacher education, specifically investigations focused on teacher knowledge, and explore ways in which ideas about teacher knowledge have shifted and changed across time and place. We consider personal practical knowledge as a lens through which scholars can develop deeper insights into, “the experiential, moral emotional, embodied knowledge teachers hold and express in their classroom practices” (Clandinin, Downey, & Huber, 2009, p. 141). Such studies can be more carefully positioned to examine the tensions between teachers’ knowledge (as it exists and as it develops) and the contexts in which teachers work. Conceiving of teacher knowledge in this way enables scholars to consider more carefully the “dialectic between each teachers’ personal knowledge and his/her social contexts as knowledge shaped and lived out” (Clandinin et al., 2009, p. 141).

Personal practical knowledge was founded on Dewey’s (1938) philosophy of experience particularly the interaction of the characteristics of continuity and the social in the development of knowing and acting on that knowing. Further, since teacher educators utilize their own personal practical knowing of teaching, specifically teaching teachers, then it would seem appropriate to extend this work to examine the personal practical knowledge of teacher educators which emerges in their own experience as teacher educators. In this process of developing personal practical knowledge as teacher educators, they draw upon their prior experiences and current practices within the context of their teacher education programmes to inform their work with their education students (Clandinin et al., 2009).

We address connections of conceptions of personal practical knowledge to the work of teacher educators and the ways in which the notion of personal practical knowledge is presented in the teacher education literature. We also consider ways in which personal practical knowledge might inform teacher educators’ work in preparing teachers for increasingly diverse school communities.

While much of the work featured in this chapter is set in a North American context, we are conscious of the ever-growing interconnections across global lines such that ideas about personal practical knowledge increasingly reflect nuances of cross-cultural influences. At the core of this examination of personal practical knowledge is our goal to better understand knowing and working as teachers and how teacher educators might draw upon this knowledge and develop their personal practical knowledge as teacher educators as a resource in teacher education.

Importance of Teachers Having an Understanding of Personal Practical Knowledge

As we noted in the above definition, Connelly and Clandinin (1988) conceived of personal practical knowledge as knowledge constructed from experience, and argued that teachers are knowing and knowledgeable persons. This notion

challenged commonly-held beliefs of teacher knowledge at the time, which more often consisted of knowledge as held and created by others to be passed on from teachers to their students through the curriculum (see Brophy & Good, 1986). At the time of Connelly and Clandinin's (1986, 1988) work on teacher knowledge as experientially based and expressed narratively, other conceptions of teacher thinking were also present which focused on categorizing the types of knowledge teachers held and used in practice (see Clark & Peterson, 1986; Shulman, 1987). In contrast, Connelly and Clandinin, informed by Schwab's (1969, 1978) conception of the practical along with Lakoff and Johnson's (1980, 2003) work on embodied knowing, conceptualized teacher knowledge as holistic, embodied, and practical. Further, Personal practical knowledge was conceived of as constructed from a personal and practical base, utilized in creating curriculum with and for students within, but also beyond, the classroom and school contexts in which teachers live and work (e.g., Clandinin, 1985; Clandinin & Connelly, 1995; Clandinin et al., 2006; Craig, 2003).

In this section of the chapter, we will underscore the significance and value that teachers derive from being able to conceptualize their knowing in this way with an understanding of the epistemological basis of their knowing (as practical, embodied, holistic, and emerging in the context of practice through sociality and continuity). The epistemological stance of this research is based in an orientation toward individual knowing and to ontology as the place from which productive inquiry into it and its development proceeds, particularly understanding experience and its contribution (see Clandinin & Rosiek 2007) rather than on making claims for generalizable categorizations. Such understanding supports teachers in being wakeful to themselves as knowing and knowledgeable – as knowledge creators and producers and not just knowledge users. Through four avenues, we explore the importance of teachers' understanding personal practical knowledge, in that this conceptualization of teacher knowledge: (1) offers insights into curricular choices; (2) provides an explanation for differences in practices within milieus that enforce conformity and standardization; (3) counterbalances the emphasis on content knowledge, best practices, and other narrowed and categorical approaches to teacher knowledge and practices as trainable; and, (4) opens and connects avenues for understanding and developing more productive responses to the increasing diversity in classrooms and school communities.

Personal Practical Knowledge Offers Insights into Curricular Choices of Teachers

Built on our understandings of personal practical knowledge, we believe that recognizing the role of experience in shaping teachers' knowledge helps teachers to understand who they are and what they bring to the classroom. Their enriched understanding of experience in relation to curriculum and professional identity, in turn, informs their understanding of their curriculum practices and underlying

philosophy. This exposure to and reflection upon the notion of personal practical knowledge deepens their understanding of their professional identity – who they are as educators and people and how they work and interact with their students.

Jean Clandinin's early research focused on examining details of teacher knowledge. Clandinin's inquiry into the mismatch between teachers' knowledge, as expressed in the literature she read as a doctoral student, and her own knowledge of teachers with whom she had worked as colleagues during her time as a school counselor, yielded an exploration of the complexities underlying teachers' work in schools that was, at the time, not widely recognized. She explored the notion of images and metaphors guiding the work of teachers through her detailed documentation of her teacher participant, Stephanie, whose teaching practices were guided by images of school and classroom as a home (Clandinin, 1986). Clandinin (1989) then went on to examine teachers' personal practical knowledge as reflecting 'rhythms' of events that may unfold over the course of a school day, week, year, term, and season in teaching.

Clandinin's writing highlighted ways in which the work of teachers intertwined with events that unfolded in their classroom and school community revealed their knowing and shifted and shaped it. This in-depth examination of the work of teachers emphasized the complexity of teacher knowledge, and revealed the extent to which the body of knowledge from which teachers draw to inform their work with students is influenced and shaped by many factors within and beyond their school and classroom contexts.

Emerging from early work conducted by Elbaz (1981, 1983) and Clandinin (1986, 1989), the interconnections between teacher knowledge, identity, and curriculum are explored in further depth in two studies we highlight here. Tsui's (2004) case study of four second-language teachers in a Hong Kong school illustrated the interplay between personal practical knowledge and curricular choices. This research was an examination of the professional development of these language teachers, each of whom were at varying levels of experience and, consequently, different levels of development and proficiency. The second study, also focused on language teachers, was an examination of the shaping influences of prior language-learning experiences on the classroom practice of three teacher participants in a school located in Turkey. Ariogul (2007) found that teachers' participation in a study focused on enhancing awareness of their own sense of teacher knowledge raised teachers' awareness of their teacher practices and decisions. One teacher in the study, for example, commented on how participation in the study helped her to better understand how she taught, who she was as a teacher, and what she wanted to accomplish in her teaching. These studies illustrate ways in which teachers' enriched understanding of their own personal practical knowledge contribute to deepening their insights into their curricular practices and their identity as teachers. As these kinds of studies demonstrate, when teachers uncover the specifics of their personal practical knowing as teachers, their practices become more refined, deliberate and focused and their teaching and confidence in it becomes stronger.

Personal Practical Knowledge Offers an Explanation for Differences in Practices Within Milieus That Enforce Conformity and Standardization

Standardization of expectations and outcomes for students, teachers, and schools is currently an often discussed theme in education research and literature. With the initiation and subsequent outcomes of ‘Race to the Top,’ we have curricula, materials, and resources that span across states. Teachers are frequently mandated and coerced into using these materials regardless of fit with the needs of children or how oppositional they are to the good practices of the teachers being forced to use these materials. With all the energy being applied to creating uniformity within the educational systems across the nation, it is puzzling that classrooms in Minnesota look different from classrooms in Arizona. Despite similarities from one classroom to the next from Massachusetts to California, for example, we nonetheless see differences in practice that undergird this imposed standard curriculum when we spend time in schools, even from fifth-grade classroom to fifth-grade classroom within the same school district or within the same school. We believe that the concept of teachers’ personal practical knowledge, as organically connected to personal and practical experiences, offers insight into reasons for these differences.

From the early days of the process/product approach to curriculum, teachers have been storied as impediments to implementation of curriculum created by others outside the classroom (see Brophy & Good, 1986). Those teachers, so the tale goes, cannot use curriculum with fidelity. What is lost in this approach to curriculum is the role that teachers’ knowledge and identity play in the classroom. Teachers bring with them into their classrooms, their experiences as students (in K-12 public schools through university), their experiences as humans and their beliefs about what schools should look and feel like in addition to their practice, and their interactions with students – the compilation of these in the knowing and action of individual teachers is unique as is the personal and practical knowledge that shapes their work and they act in individualized ways.

Teachers may (and, we know many who do), quite rightly, chafe under a view of their work with curriculum development and enactment as being imposed from outside and designed as teacher proof. In similar ways to the problematic operationalization of such a curricular approach, the conceptualization of curriculum as outside the realm of teacher interpretation and adaptation is troubling, as well. Such a view of curriculum is dismissive of the work of teachers and their knowledge and their relational understanding of and commitment to the students they teach.

Clandinin (2013), in a recent work, reiterated the pivotal role of personal practical knowledge in the classroom lives of teachers. Her research highlighted the foundational place of ‘image’ in teacher knowledge, the argument we support; one tied to personal practical knowledge:

Teachers develop and use a special kind of knowledge. This knowledge is neither theoretical, in the sense of theories of learning, teaching, and curriculum, nor merely practical, in the sense of knowing children ... A teacher’s special knowledge is composed of both kinds

of knowledge, blended by the personal background and characteristics of the teacher, and expressed by her in particular situations. The idea of “image” is one form of personal practical knowledge, the name given to this special practical knowledge of teachers ... (Clandinin, 1985, p. 361)

When teachers and others understand the concept of teachers’ personal practical knowledge as the knowing teachers draw on to guide their practice, teacher work, knowledge and curriculum making is strengthened and validated. Their work in classrooms is more accurately conceptualized as knowledgeable rather than improvisational or routine. Teachers benefit from seeing themselves as knowing and knowledgeable persons. Such a view can promote a reflective stance toward practice as opposed to enabling them to resist rather than acquiesce to the role of being implementers of an imposed generalizable curriculum. Conceptualizing teachers and teacher educators’ knowledge in this way (teacher educators are more able to attend to the “interwoven” nature of knowing teaching that exists (or could) between teachers and teacher educations) could therefore be more sustaining to both (Clandinin et al., 2009).

Personal Practical Knowledge Counterbalances Emphasis on Content Knowledge, Best Practices, and Other Narrowed Approaches to Teacher Knowledge and Practices

Scholars of education recognize teacher knowledge as an amalgam of indispensable, inseparable components. We argue that personal practical knowledge provides a vital complement to the more narrowed understandings of curriculum that shape the professional knowledge landscapes of teachers (Clandinin & Connelly, 1995) and current practices of curriculum development as well. We describe this as an act of counterbalancing. We choose deliberately the idea of counter-balance. Funding is readily available to create professional development as well as canned curriculum targeting content areas, particularly in the STEM fields. Just as problematically based on evaluation of such canned approaches, researchers have embraced the idea of best practices. While these programmes (professional development and curriculum programmes that emerge) perhaps improve teacher quality in delivering content, certainly there are other important aspects of teacher knowledge, identity, and classroom practices that are of equal value. In addition, there is the matter of artful adjustment of pedagogy to ensure the individual advancement of particular children. These all might be considered under the umbrella of personal practical knowledge. Aspects such as knowledge of learners, pedagogy, classroom guidance, and relationships with parents are among topics that are certainly part of the holistic all-encompassing conceptualization of personal practical knowledge. Embedded in teachers’ holistic, embodied practical knowing that guides them is also content knowledge, knowledge of content for teaching it, as well as best practices for developing thinking, speaking, reading, writing, listening and numeracy skills. Grossman

and Shulman (1994) supported such a varied and rich understanding of the knowledge called upon by teachers in their practice:

At the heart of teachers' capacity to cope will be their developed pedagogical understanding, knowledge, and skills, and their dispositions and commitments regarding children, their subject matter, and the social conditions that surround both. (p. 18)

We acknowledge that content knowledge, pedagogical content knowledge, and a robust repertoire of teaching strategies are, of course, important aspects of a teacher's personal practical knowledge. We see points of intersection between personal practical knowledge and pedagogical content knowledge as put forward in the argument by Grossman and Shulman. In contrast to the argument for a category of teacher knowledge, personal practical knowledge highlights teacher knowing as experiential and holistic. In planning for teaching and enacting plans, teachers are simultaneously drawing on all aspects of their knowing rather than merely one component of it. Conceptualizing their knowing as personal, practical knowledge enables those who work to sustain teachers in their work and develop their practice and capacity as teachers, teacher educators are able to conceptualize better how to help teachers thrive in, rather than resist, professional development. This enables teacher educators to work more relationally in supporting teachers in teaching themselves to teach (see Clandinin et al., 2009).

Personal Practical Knowledge Opens and Connects Ideas of Diversity in Classrooms and School Communities

Understanding and building into teaching, learning, and curriculum the cultural, linguistic, socio-economic, sexual orientation, learning, abilities, racial, and gender diversity of members of the school community is a theme throughout education research and literature. There is an abundance of research highlighting the need for culturally-relevant pedagogy (Ladson-Billings, 1995, 2001; Villegas, 1991) and culturally-sensitive curricula (Gay, 2000/2010; Nieto & Bode, 2012) that build on the experiences and knowledge that students of ethnic-minority backgrounds bring to school contexts (Banks, 2015, Cummins, 2014; Igoa, 2007; Paley, 1979, 1995).

There are several externally-focused approaches, looking at resources, strategies, methods, and curricular approaches, presented to and for teachers. We believe that teachers' understanding of the concept of personal practical knowledge opens a more internally-focused approach. When teachers recognize the role of experience in shaping their knowledge and are encouraged to see the connection between who they are and what they bring to the classroom, they are more likely to then recognize and honor the way that students' experience infuses their identities as well. Chan's work in the area is an example we bring into this conversation.

Chan (2006), in her examination of teachers' experiences of culture in the curriculum, considered teachers' prior experiences in shaping their personal practical knowledge that in turn contributed to shaping their decisions about the design and

implementation of curriculum for their students. The teachers featured in her study, drawing upon their experiences as students attending schools with little cultural diversity throughout their childhood, expressed a commitment to including, and celebrating, students' cultural backgrounds in their interactions with them in their diverse, urban middle school. One teacher was motivated by a desire to provide his students with opportunities to experience recreation activities that may be limited by their family's financial circumstances while the other teacher featured in the research was motivated to include outdoor education experiences for his seventh graders due to his previous, positive experience working with pre-teens on outdoor adventures. Both teachers expressed a commitment to supporting their students' participation in school curriculum activities. They only realized possible tensions associated with different ideas pertaining to gender equality in the implementation of curriculum activities when confronted with parents whose ideas about appropriate curriculum differed from those they had expressed for their male children.

Each student and teacher carries into their lives and work in school a unique way of knowing and being (Craig & You, 2014; Lyons & LaBoskey, 2002; Pinnegar & Hamilton, 2009; Schlein & Chan, 2013). Examination of their work highlighted the interconnections between teachers' prior experiences and their teacher knowledge, and ways in which they drew upon this body of knowledge to inform their curriculum decisions. In the process, nuances of the intersection between experience and teacher knowledge to inform curricular decisions were revealed. Examining details of how teachers drew upon their body of teacher knowledge to inform their work with their students opened up discussion about ideas of diversity in their classroom and school community, and raised questions about complexities of the role of teacher knowledge in contributing to teachers' curricular decisions. Teacher educators can be more proactive in drawing such knowledge into teacher candidates' experience in preparing to be teachers. In such work, teacher educators draw on their personal practical knowledge as teachers and as teacher educators (see Clandinin et al., 2009).

Personal Practical Knowledge: Origins of an Idea and the Context of Its Growth and Development

The concept of personal practical knowledge emerged from, and was embedded into, a programme of research conducted in the early to mid-1980s when a group of researchers at the Ontario Institute for Studies in Education, anchored by Michael Connelly, began exploring and developing a conceptualization of teacher knowledge that recognized teachers as 'knowledgeable and knowing' (Connelly & Clandinin, 1988, p. 25). The early germination of this notion was found in the research and writing done by Elbaz (1981, 1983) and Dienes (Connelly & Dienes, 1982). As the concept of teachers as creators of knowledge based in experience was taking shape, Clandinin's (1985, 1986) long-term, narrative inquiry work examining the classroom practices of an elementary teacher, Stephanie, shaped the concept

further. This work offered a glimpse of the ways in which teachers' identity and experiences outside of the classroom may inform and shape their curricular decisions. This work offered insight into ways in which teachers make curricular decisions that are in turn connected to underlying knowledge gained through personal and practical experiences.

Clandinin's (1986) early work also pulled forward the concept of *image* as a knowledge construct. As we shared in the introductory vignette, Clandinin (2013) described her dissonance as a beginning doctoral student concerning the ways teachers were portrayed in the existing research literature. She referred to teachers with whom she had worked and knew of the care and consideration they took in making curricular decisions for their students. Their knowledge as teachers was grounded in their prior experiences with students, their own experiences as teachers and as learners, and their vision for what they wanted for their students and for themselves. This dissonance in the way that teacher knowledge was lived and the way it was portrayed in research inspired her to take a deeper look at the work of teachers. Thus, a programme of research beginning with a study entitled the 'Personal Practical Knowledge Research Project,' was initiated.

Early in the project, attention was focused nearly exclusively on further exploration to deepen understanding of ways in which teacher knowledge may shape curriculum and classroom practice. Connelly and Clandinin's collaboration at Bay Street School was the context out of which a personal practical knowledge framework, as understood today, was developed. This conceptualization of personal practical knowledge (Connelly & Clandinin, 1988) is grounded in the recognition of the influence of personal and professional experiences that shape teachers' curricular decisions and practice.

Over the course of the next three decades, the research sites shifted to include other schools and education contexts, other research team members, and a second research team as Clandinin established her Centre (Centre for Research on Teacher Education and Development) at another university. Throughout these changes, the focus on the collaborative development of the knowledge framework remained strong, as did the knowledge framework they had established. Their work acknowledges curriculum as constructed in the intersection of the personal practical knowledge of members of the school community, including administrators, students, and parents, and built on underlying notions of theory, practice and policy (see Clandinin & Connelly, 1996; Connelly & Clandinin, 1995).

Important to an understanding of the idea of personal practical knowledge, is the context from which it emanated and in which the idea was given scholarly consideration. A new way of understanding and thinking about teacher knowledge – personal practical knowledge – emerged from a field previously dominated by the idea of 'teacher-proof' curriculum and a taken-for-granted understanding of teachers as consumers of others' knowledge.

Connelly and Clandinin's (1988) conceptualization of personal practical knowledge is grounded in the recognition of the influence of personal and professional experiences. This knowledge shapes all of a teacher's doing and knowing – her curricular decisions, her teaching practices, her interactions with others (teachers, parents, administrators, community members and students). Connelly and Clandinin's

work in this area is located in an understanding of curriculum as constructed in the intersection of between the personal and practical including not just the knowledge of teachers but also members of the school community, including administrators, students, and parents. Embedded in this knowing are teachers underlying notions, lived experience, and understanding of theory, practice and policy. Foundational to establishing an understanding of the term personal practical knowledge is a sketch of the context from which this notion of teacher knowledge finds its origins, and within which the idea was given scholarly consideration.

Emerging from a field of scholarship in education grounded in ‘teacher-proof’ curriculum and shaped by taken-for-granted understandings of teachers as consumers of others’ knowledge, this period in the literature is sometimes referred to as the process-product approach to research in curriculum and teacher knowledge (for example, Brophy & Good, 1986). In the decades stretching across the 1970s, 1980s, and 1990s, a shift in the field began to emerge with a focus on the knowledge used, held, and created by teachers. There was a shift toward the stance whereby teachers were viewed as knowing and knowledgeable and such knowing was embedded in the ontological (their relationships, practices, enactment of and planning for teaching and their action as teachers). This view developed in contrast to the previously accepted modernist epistemological paradigm where utilizing quantitative methods foundational claims for knowledge of teaching generalizable across contexts were made. Researchers’ growing concern with teachers’ individual knowing in thinking and practice, along with respect for that knowing, characterized by work such as that focused on personal practical knowledge sparked an epistemological challenge. As a result an important conversation within the community of educational researchers and scholars ignited, and the multiple ways of understanding teacher knowledge stoked the literature. Several related, though distinct, approaches to studying teacher knowledge further fueled the development of a teacher knowledge framework.

The teacher as researcher movement usually focused on the practice of action research as a way in which teachers could express their knowledge was reintroduced and expanded in this period (Cochran-Smith & Lytle, 1993). Also working in the area of action research, although in a British context, Whitehead and McNiff (2006) used this approach of teachers studying their own practice around their experience of being ‘living contradictions’ (situations where they found their actions in practice to be in opposition to what they thought they were doing or their beliefs about practice). Whitehead and McNiff (2006) argued that such studies revealed ‘living theories’ – living because as they engaged in studying practice their knowing shifted and because it lived in the practices they studied. At the same time teacher educators were grappling with the idea of professional knowledge for teachers.

Tom and Valli (1990), in a chapter titled *Professional for teachers*, explored paradigms they felt shaped the ways in which teacher knowledge might be understood. Relevant to our work here, is the paradigm they proposed of ‘craft’, as seen in relation to positivistic, interpretive, and critical ways of seeing the world (work based in modernist epistemology), arguing that, “... classroom practitioners and some teacher educators continue to rely upon a craft conception of professional knowledge; they seem to find little of generative or effective value in knowledge derived

from the standard epistemological traditions” (p. 390). The notion of craft knowledge in teaching was explored further by Grimmett and MacKinnon (1992) and defined in their review of research in teacher knowledge. They argued for an understanding of teacher knowledge as, “a particular form of morally appropriate, intelligent, and sensible know-how that is constructed by teachers, holding progressive and radical educational beliefs, in the context of their lived experiences and work around issues of content-related and learner-focused pedagogy” (p. 396).

While Tom and Valli (1990) explored the teacher knowledge question through wrestling with paradigms, Carter (1990, p. 293) considered, “questions of what teachers know and how that knowledge is acquired” through a different kind of lens. As she examined the field of teacher knowledge, she saw three categories to help organize the work that was developing in the field at the time: ‘teachers’ information processing’; ‘pedagogical content knowledge’; and, ‘teachers’ practical knowledge’, which is where she felt there was a fit with the work built on the concept of personal practical knowledge.

One of the three categories put forward by Carter (1990) in her review of the field was pedagogical content knowledge, a way of understanding the knowledge of teachers which had been put forward by Shulman (1987). In an encyclopedic summary of this construct by Grossman (1995), pedagogical content knowledge is presented as a part of a categorization of the knowledge of teachers. Pedagogical content knowledge, according to Grossman, was a combination of many types of knowledge that teachers create and use within their professional responsibilities. She listed six type of knowledge: knowledge of the content; knowledge of learners and learning; knowledge of general pedagogy; knowledge of curriculum; knowledge of context; and, knowledge of self. She referred to the phrase ‘wisdom of practice’ (Shulman, 2004) in talking about the knowledge of experienced teachers. Doyle (1990) added to this discussion, understanding the concept of teacher knowledge in a framework of decision-making. Richardson and Anders (1994) further used this framework to explore the notion of teacher knowledge as a changing and developing process.

Initially Fenstermacher (1986) explored teachers’ knowledge as practical knowledge contrasting practical knowledge and propositional knowledge. Fenstermacher (1994) developed this idea further exploring these new, at the time, ways of understanding teacher knowledge. He set out a framework to categorize the, “epistemological character of what is and can be known by and about teachers and about teaching” (p. 5). His classification schemes set up boundaries, long-established in the field of philosophy and science, between formal knowledge and practical knowledge. His work offers a glimpse of the robust and exciting conversation about teacher knowledge in the field of education and curriculum at the time, showing that personal practical knowledge, as a way of thinking about teacher knowledge, was being explored and framed in the work of Connelly and Clandinin. Clandinin (1986), and Connelly and Clandinin (1988, 1990), shaped and added to this larger conversation that acknowledged the contribution of teachers’ personal and professional experiences in shaping curriculum design and implementation in classrooms. Connelly and Clandinin’s (1990) term personal practical knowledge offered insight

into ways in which teachers' experiences, both personal and professional, may intersect in a classroom as teachers design, implement, and assess school curriculum.

While these early expansions of the epistemological frame that set the conversation related to teacher knowledge were invaluable to its inception and development, the notion of personal practical knowledge really found a place in the field with the publication of Connelly and Clandinin's (1990) article and their foundational book, *Teachers as curriculum makers: Narratives of experience* (Connelly & Clandinin, 1988). These contributions to the personal practical knowledge framework encompassed and built on Clandinin's (1986) work with Stephanie, the teacher participant from Bay Street School featured in this work. These early writings created a strong link, perhaps an unbreakable connection, between curriculum, defined as a 'life course' (Connelly & Clandinin, 1988) and with narrative as both a phenomenon emerging from experience and as a methodology used to study experience.

The early work related to personal practical knowledge focused on teachers' classroom practices as the embodied knowing of teachers. The idea expanded from this beginning point to consider the ways that the contexts of schools and communities (Clandinin & Connelly, 1995), as well as a host of other factors comprising the milieu of teachers, contributed this body of teacher knowledge. Current work, framed by the conception of personal practical knowledge, takes into account the knowing of the many stakeholders of curriculum, including students, their parents, and teacher educators.

Personal Practical Knowledge of Students

We present here research examining the personal practical knowledge of students (Chan, 2007, 2010). Chan's writing describing the experiences of immigrant and minority students in North American schools (Chan, 2007, 2010; Chan & Schlein, 2010) contributes to a body of work introduced by Ayers and Schubert and recognized by Jackson in Pinar, Reynolds, Slattery, and Taubman's (1995), *Understanding Curriculum*, as 'student lore'. This, in turn, grows from Ayers and Schubert's body of work referred to as 'teacher lore', a collection of stories documenting the experiences of teachers as they work with their students in school.

This work developed in response to the need for, "information and awareness of the cultural backgrounds of pupils in order better to diagnose strengths, weaknesses, and differences in cognitive styles" (Moodley, 1995, p. 817) of a student population that is becoming increasingly diverse (LaBoskey, 2012; Schlein & Chan, 2013). Despite existing research acknowledging the importance of home cultures and languages of diverse student populations in school contexts and the need to accommodate students through culturally sensitive and culturally relevant (Gay, 2000/2010; Nieto & Bode, 2012) curriculum, there seems to be little work focusing specifically on the experiences of immigrant and minority students, and even less examining in particular their experiences of participating in curriculum that is identified as *culturally-sensitive*. Much of the existing literature examining culturally sensitive

curriculum is from a teacher perspective, illustrating ways in which students respond positively to initiatives to acknowledge or include their home cultures in school contexts. There is a general tendency to overlook student voice (Cook-Sather, 2002), and studies examining student response to school events, including examination of student voice and engagement in school reform, are relatively recent (Mitra, 2003, Rudduck, Chaplain, & Wallace, 1996). Furthermore, there is in particular, a puzzling lack of research examining the curricular experiences of students of ethnic-minority backgrounds from the perspective of the students themselves (Chan, 2007, He, Phillion, Chan, & Xu, 2007).

Chan used a narrative inquiry approach (Clandinin & Connelly, 1994, 2000), with a focus on 'stories of experience' (Connelly & Clandinin, 1988) to learn about the experiences of immigrant and minority students as they interact and work with peers, teachers, and administrators in schools. Long-term, classroom-based participant observations were conducted at a diverse, urban elementary school, drawing on Jackson's (1990) work in *Life in Classrooms*. This approach is in line with Dewey's (1938) theory of the interconnected-ness between education and experience, and Schwab's (1969) argument for the importance of focusing on the particular in curriculum development and implementation.

Chan's (2007) examination of students' experiences of culture in the curriculum raises questions about tensions when students respond to teacher initiatives to 'diversify' their curriculum in ways they had not anticipated. Chan (2010) also examines the experiences of immigrant and minority Chinese students as they balance affiliation to their ethnic, school, and neighborhood communities to address ways in which knowledge of home, community, culture, and life outside of school intersects with school curriculum, practices, and policies. For some students, the school curriculum may differ so significantly from what or how they are being encouraged to learn at home and in the community that curriculum in these two places may be viewed as 'conflicting stories to live by' (Chan, 2010). This work offers further evidence for the need for experiential research focusing specifically on exploring the intersection of home and school influences from the perspective of the students themselves. Knowledge gained about students' experiences of school curriculum stands to contribute significantly to the existing body of literature exploring the personal practical knowledge of teachers. This knowledge, appropriately identified as personal practical knowledge of students, acknowledges the complexities and richness of prior experiences in contributing and shaping future personal and professional experiences. In addition to learning about the students' experiences through participant observations conducted in a school research site where she was part of a research team who had been based in the school long term, and through ongoing informal interviews and conversations, Chan also drew upon her own experiences as a first-generation Chinese Canadian (Chan, 2003, 2010, 2015; Chan & Boone, 2010) to inform her understanding of the interaction of culture and curriculum in schools.

Curriculum of Lives in Transition

Recent research raises questions about ways in which home curriculum might contribute to shaping the experiences of students further and more deeply at the family level in ways not previously considered when examining student knowledge. This knowledge contributes to learning in school as students bring to their school contexts knowledge shaped by prior experiences outside of school. Examination of the development of this personal practical knowledge offers a glimpse of a rich experience overlooked in school when considering what and how children acquire knowledge and a sense of identity in relation to their learning. This realization offers a glimpse into possibilities for deeper knowledge of students and their learning.

Examination of the details of students' experiences of curriculum within and beyond a school context offers a glimpse of the importance of these details in shaping the identity and knowledge of students (Chan, 2007, 2010; Clandinin et al., 2006, 2013; Huber, Murphy, & Clandinin, 2011). Details of students' experiences as they move back and forth from home to school and then back again may be understood as an intersection of learning in the home and community, with learning through the school curriculum. Recognition of the interconnectedness between experience and education in this examination of the intersection of home and school learning is grounded in Dewey's (1938) work.

Recognizing these interconnections in learning, Huber et al. (2011) argued that understandings of curriculum should, appropriately, extend to learning that is experienced outside of school, such as in families and communities. They describe this work as 'a curriculum of lives' (Clandinin, Steeves, & Caine 2013), to acknowledge the influences of family and community experiences in contributing to and extending the learning of children in ways much more complex than previously perceived. This strand of the research deliberately reaches beyond the walls of schools or classrooms to acknowledge and examine intersections of school and home curriculum by considering students' experience of curriculum in their home.

Shifting the focus to students and their families informs our understanding of the complexity of curriculum, by revealing the potential contribution of experiences beyond classrooms and schools to the school learning of students. This shift informs and enriches our understanding of the complexities of teaching and curriculum.

Personal Practical Knowledge of Parents

We consider next the personal practical knowledge of parents. Recognizing that students' experiences of curriculum and schooling may be shaped by personal practical knowledge developed through prior experiences, we are also extending this notion to parents (Nelson, 2014). Current school reform includes initiatives to engage parents in the schooling of their children. More specifically, there have been initiatives inviting parents into schools and encouraging parents to participate in

school events, as well as to take leadership roles working with teachers and administrators in school councils or other parent groups within the school. Another venue receiving attention is the construction of and influence within and focused on teacher educators.

Personal Practical Knowledge of Teacher Educators: Meaning and Merit in Teacher Educators Having an Understanding of Personal Practical Knowledge

Returning to the premise of personal practical knowledge as an epistemological stance whereby teachers are acknowledged as knowing and knowledgeable, and whereby knowledge is recognized as being constructed from experience, we use this knowledge framework as a lens to understand the work of teacher educators, and the interactions between them and their myriad contexts. Taking a logical next step, we argue that teacher educators are, first and foremost, teachers, who are also designing and implementing curriculum. We, too, are constructing knowledge from our experience. We, too, are knowing and knowledgeable. Teacher educators have a personal practical knowledge from which we operate and act. The interconnections between personal practical knowledge and teacher education stand to reason, given our assumptions related to the role of experience in shaping the work and lives of teachers and the professional decisions they make in their work with students in school. Implicit in these assumptions is the belief that our commitments and values are reflected in our work as teacher educators. The seemingly overlooked connection between personal practical knowledge and teacher education is puzzling; for this reason, we examine this relationship in further depth.

Next, we consider ways in which an understanding of the relationship between personal practical knowledge and the experiences of teachers may inform the work of teacher educators. Specifically, we begin by establishing a commonplaces framework to analyze personal practical knowledge of teacher educators. Then, we take this understanding of the interrelationships of these commonplaces one step further by considering ways in which a deepened apprehension and appreciation of personal practical knowledge of teacher educators stands to enrich their work with their education students.

Commonplaces of Personal Practical Knowledge

In establishing a conceptual framework to strengthen our understanding of the interconnections between personal practical knowledge and teacher education, we refer to Clandinin and Connelly's (2000) three-dimensional narrative inquiry space to structure this exploration of personal practical knowledge and teacher education.

First, we suggest that drawing connections between these two constructs may be a way to capture some of the complexities as various approaches to teacher education weave and intersect, and to outline boundaries on this wide-reaching concept of teacher knowledge as shaped by the experiences that educators bring to their curriculum work. Following this line of reasoning, Connelly and Clandinin (2006) argue that the temporal, social, and spatial dimensions of narrative inquiry (Clandinin & Connelly, 2000) could also be considered commonplaces of narrative inquiry. We then propose an extension of this idea, and submit that the three dimensions of the narrative inquiry space could be conceived of as commonplaces of personal practical knowledge, as it relates to teacher education. Adapting the personal/social, spatial, and temporal commonplaces to explore personal practical knowledge in teacher education and teacher educators offers possibilities for addressing the puzzling gap between the abundance of research examining teacher knowledge – but which relies on implied connections to teacher education. When grounded in the concept of personal practical knowledge, those individuals who are engaged in teacher education embody personal practical knowledge as the foundation of their teacher education. Following this explanation of commonplaces for personal practical knowledge, we consider some of the existing work in which the concept of personal practical knowledge and teacher education are fused together.

Within this personal practical knowledge commonplace framework, Pinnegar and Hamilton (2012) explored their teaching practices as teacher educators, exposing and pursuing the following tendencies that seem to emerge in the practices of teacher educators (and narrative researchers):

in moving field texts to research texts narrative researchers begin in the midst and naturally draw upon interpretive tools from other experiences in meaning-making;
 as the researchers attend to sociality, looking inward and outward, place and temporality slide naturally, fruitfully and tacitly into developing understandings;
 in the perpetual motion of moving from internal/external, the researchers found themselves laying narratives alongside one another so that self is inextricably interwoven in process; and
 as analysis deepens, ethical issues regarding relationships between teachers, teacher educators, and the duty to unseen children emerge (Pinnegar & Hamilton, 2012; in Chan, Ross, & Keyes, 2012, p. xxv).

Pinnegar and Hamilton (2012) address in this exploration the extent of connections among the three dimensions despite their initial intention to focus in particular on the personal/social dimension in their work; in fact, they found that interconnections between all three dimensions were such that temporal and spatial dimensions could not be teased apart from the social-personal dimension they intended to examine in further depth. They found that:

... stories live alongside their meaning-making, and often the sense they make as a new story emerges through the provision of a different new story that repositions through plot, theme, and character the learning at which they arrive. Just as experience never ends and is only bounded for a particular interpretation, story escapes from analysis to assert meanings

that remain open to restorying or the reconstruction of new understandings. (Chan et al., 2012, p. xxv)

We perceive in this example by Hamilton and Pinnegar the extent to which personal practical knowledge of a teacher educator is woven into the experiences of their students and develops alongside those of the people with whom a teacher educator interacts.

Following in this personal practical knowledge commonplace analysis, Keyes and Craig (2012) examined the influence of ‘place’ in the lives and work of teacher educators, exploring stories of tension and bumps on the professional landscape of teacher educators. They consider complexities that arise when, “the *small stories* that (teacher) educators live in relation to those far removed, authorized *meta-narratives*, and *question* how we can remain wakeful to the many *story constellations* of others that revolve around us?” (Chan et al., 2012, p. xxvi). Keyes and Craig address ways in which teacher educators’ personal practical knowledge is woven into the meta-narratives of the place in which this knowledge and the associated stories develop and unfold.

Meanwhile, Murphy, Ross, and Huber (2012) pondered,

the relational nature of narrative inquiry and ways in which they became entangled in one another’s knowing, and lives, through the sharing of stories. This beginning shaped the process as each author shared a story, followed by storied responses from co-authors. The commonplace of temporality (Connelly & Clandinin, 2006) was strongly foregrounded in this relational process. The storytelling and response drew forward past narratives to respond to one another, as the authors simultaneously inquired into the shaping influence of these past experiences in the present “stories we live by” (Connelly & Clandinin, 1999) as teacher educators.

The storied responses to one another’s stories became layered one upon another. Evident to the authors was that they were also writing of sociality and place in their narratives despite their intention to focus on the temporal dimension. They were situated as narrative inquirers and teacher educators looking inward and outward as they took moments of personal significance and situated them in the context of social significance. Staying attentive to the commonplace of temporality helped them stay wakeful to how the past and future are understood in the context of the present. (Chan et al., 2012, p. xxvi)

Personal practical knowledge is represented in the past, present, and future interconnection and interrelationships alluded to in the work of Murphy, Ross, and Huber. Becoming cognizant of the interplay of temporal elements is fundamental to teacher educators’ making meaning of the role that personal practical knowledge has in their lives and work preparing teachers.

Schlein and Chan (2012) refer to Clandinin and Connelly’s (2000) notion of the three-dimensional narrative inquiry space to explore and to deliberate over ways in which culture may contribute to the interpretation of field texts when teachers are working with students of cultural backgrounds different from their own. They acknowledge the potential nuances of cross cultural influences that may further complicate interactions across dimensions of time, space, and sociality. Schlein and Chan (2012) highlighted the potential of drawing upon the narratives of teachers written in cultures and communities different from one’s own, as resources for better understanding the development of personal practical knowledge in relation to

experience. These chapters serve to illustrate some of the ways in which personal practical knowledge may be used by teacher educators to study their own lives and work. Next, we include examples of research and writing in which preservice students are encouraged to draw upon their prior experience to build a body of teacher knowledge that will in turn inform their future teaching. Although not stated explicitly, we believe these examples further communicate our point that teacher education is built on a bedrock of personal practical knowledge.

At one level, acknowledging the personal practical knowledge we hold as teacher educators calls us to explore and to understand the experiences that shape our practices and identities. Another aspect where we perceive connections between personal practical knowledge and teacher educators' lives and work is in the philosophical and curricular understandings we share with our preservice teachers. We argue for consideration of ways in which more explicit consideration of personal practical knowledge in teacher education would be beneficial. Samples of existing research that develop the rationale and methods of using personal practical knowledge with preservice teachers in their teacher education programme follow. Conle et al. (2000) explored the potential influence of childhood personal experiences in contributing to the personal and professional knowledge of beginning teachers in a teacher education programme in a Canadian context.

Built into coursework as discussion and research, preservice teachers inquired into the personal and professional experiences, to study how these interactions with diversity during schooling experiences might inform their knowledge about the experiences. This research supports the acknowledging of students' experiences as children that inform their understanding of their students of diverse backgrounds. A deeper understanding of the relationship between personal practical knowledge and teachers' curricular decisions and practices may inform teacher educators' work of preparing their preservice teachers for work in increasingly diverse classroom contexts. Learning about the experiences of others has the potential to highlight points in which we may find points of connection, as well as points of difference.

Conle et al. (2000) demonstrated the rich possibilities for teacher educators to draw upon their education students' diverse backgrounds and personal histories as resources for learning about ways in which experience may contribute to shaping teacher knowledge. This work is grounded in notions of the hermeneutic circle whereby students begin with an account of a story or interaction that grows with the responses of their classmates to their stories and interactions. Through the responses of their classmates, preservice teachers' understanding of experiences grow to include a wider and deeper understanding of the potential impact of individual past events of relevance to them about issues of diversity.

Conle's work illustrates ways in which personal practical knowledge is woven into preservice teachers' narratives such that the personal practical knowledge that develops across time, space, and through interaction with those in their personal and professional settings is, accordingly, interconnected. Experiences from which knowledge develops is deeply rooted and interconnected with new experiences that form the foundation on which teacher knowledge is based. Certainly, connections to teacher educators and their work in teacher education are evident, and from this

illustration, we transition to explore the ways that personal practical knowledge can be used in teacher education for professional development.

Recognizing How Personal Practical Knowledge May Be a Tool Used by Teacher Educators to Create Professional Development That Supports Teachers

We hold that more explicit considerations of personal practical knowledge in teacher education would invigorate and strengthen our work and seems in many ways a natural development of previously published work addressing personal practical knowledge (Connelly & Clandinin, 1988). Through recognition of the power of experience and the importance of understanding how experience informs our understanding of our identity and lives and work as teacher educators bridges our lives and work to the work and lives of teachers. This expanding of the understanding of personal practical knowledge into the professional development endeavors we undertake to support teachers is the next avenue we explore from and through the education research literature. The expansive nature of the notion of personal practical knowledge is embedded into this review of work in the area. This stretching of the construct, originally focused on the knowledge of teachers, now covers experiences lived by teachers, administrators, students, and parents within, as well as beyond, schools and classrooms and into communities and homes. Personal practical knowledge includes recognition of the more focused attention to the role of experience in shaping personal knowledge that may, in turn, inform personal professional knowledge in rich and nuanced ways.

As we considered the expansive nature of this term, we also noted more focused ways in which knowledge about personal practical knowledge has been recognized as contributing to the development of educators. We share, as an example, the work of teacher educators in Ed.D programmes associated with The Carnegie Program on the Education Doctorate (CPED), a more institutional approach to bringing the idea of practitioner knowledge to graduate work. Parallel to work in programmes such as CPED, are examples of work at the graduate and undergraduate level to develop and understand how personal experience may shape teachers' professional identity. CPED, originated and developed by Shulman, is presented as a way of bridging the distance between teacher knowledge and teacher education. In this doctoral programme, established practitioners examine their own practices and understanding of teaching and curriculum as the foundation for the coursework and doctoral dissertation research to complete their Ed.D. programmes. Chan, Heaton, Swidler, and Wunder's (2014) piece and Chan's (2012) writing in Macintyre Latta and Wunder's (2012) book outlining ways in which CPED programmes approached the work of 'placing practitioner knowledge at the center of teacher education' examined complexities that some of the Ed.D students encountered when conducting research for their coursework and dissertation projects in their school sites. The need to better

understand the notion of personal practical knowledge to inform teacher education and professional development is especially pronounced as teacher educators search for ways to support teachers in their professional development in an era of increasingly standardized approaches to curriculum, teaching, and learning.

Using Personal Practical Knowledge as Lens to Understand Demands of Teacher Education Related to Increasingly Diverse Contexts

Supporting teachers' professional development by and in studying their practices within their own school contexts represents one way that teacher educators may use the concept of personal practical knowledge to develop our work in schools with teachers. Another approach present in the research literature is to use personal practical knowledge of teachers as a point of connection to the diverse backgrounds and histories that students bring to the classroom.

Chan (2007) reinforced this idea when she examined students' responses to the inclusion of culture in the school curriculum. Students' responses revealed ways in which their interpretation attempts to be culturally sensitive through the implementation of school events to celebrate students' home cultures were interpreted in ways different than anticipated. The findings in these studies highlight the need to recognize diversity in ways that reflect goals and values of the students and teachers involved. This work also suggested that while teachers have personal practical knowledge that is shaped by their prior experiences, so, too, do students; finding ways to implement culturally-relevant curriculum for teachers may require further exploration to learn about this body of knowledge from the students, as well as a desire and willingness to learn about and consider these differences. The study highlighted complexities underlying notions of teacher knowledge of the interaction of curriculum implementation when teachers' experiences, that in turn shape their personal practical knowledge, intersect with the experience of their students to highlight nuances of curriculum design and implementation in ways not previously anticipated.

Personal Practical Knowledge of Teacher Educators and Pragmatic Intellectual Space

We consider next the potential of Schwab's (1959/1978) notion of the 'pragmatic intellectual space' as a space for recognizing the contribution of personal practical knowledge of teachers and others in school communities, and drawing upon this body of knowledge as a resource for examining complexities and nuances of a particular (Schwab, 1969/1978) school community. We (Chan & Ross, 2009, 2014)

advocate for the implementation of pragmatic intellectual space in school communities to acknowledge knowledge of community members surrounding issues of relevance in schools, and recognizing the deliberative processes that occur within the intellectual space as professional development. We explore the potential of a 'pragmatic intellectual space' as a place where personal practical knowledge may form the foundation for teacher education. This framework, based on Schwab's notion of a 'pragmatic intellectual space' as a place where curriculum scholars may deliberate the complexities of curriculum, is a way of acknowledging the particular (Schwab, 1969/1978).

We seek to further prior work to include teacher educators, who may guide pre-service teachers to consider personal practical knowledge that informs teaching decisions in school contexts and classroom communities as being at the core of professional development that is highly relevant to their teaching practice in their own school communities. We consider Schwab's (1959/1978) notion of the 'pragmatic intellectual space' as a place in which ideas about events and interactions as they develop on a school landscape form the impetus for 'deliberations' (Schwab, 1983) among teachers to inform their understanding of teaching and learning in their 'particular' (Schwab, 1969/1978) school community.

Elsewhere, we (Chan & Ross, 2009, 2014; Ross & Chan, 2008a, 2008b) explore Schwab's (1959/1978) notion of the pragmatic intellectual space as a place in which ideas about events and interactions as they develop on a school landscape form the core of 'deliberations' (Schwab, 1969/1978, 1973/1978) among teachers to inform their understanding of teaching and learning in their 'particular' (Schwab, 1969/1978) school community. Teachers were encouraged to draw upon the personal practical knowledge of members of the community to inform their understanding of events and complexities. We consider here the role of teacher educators in contributing to and supporting the development of a pragmatic intellectual space that reflects a personal practical knowledge. We consider ways in which teacher educators might guide pre-service teachers to envision teaching communities as pragmatic intellectual spaces that draw upon the personal practical knowledge of other members of the school community to inform their teaching decisions. Understanding teachers' personal practical knowledge as, perhaps, their most profound and meaningful professional resource acknowledges differences in perspective when teachers and students are interacting across differences in culture.

As we lead into the discussion of the development and possible future directions for research in the area of personal practical knowledge following examination of intersections of teacher education and diversity, as considered in existing work, Chan and Ross (2014) piece highlights the importance of deliberation and the potential of the Bay Street School community featured in their writing as a pragmatic intellectual space. In a similar vein, Clandinin et al. (2009), through the lens of their study of teachers who leave teaching, articulate the interwoven nature of teachers' and teacher educators' personal practical knowledge and the obligation teacher educators hold for living alongside teachers in ways that support them in developing knowing about teaching that will sustain them in their teaching.

We examine the relationship between personal practical knowledge and teacher education. We explore ways in which teacher educators, teachers, and pre-service teachers may use this notion, along with notions of ‘particularity’ (Schwab, 1969/1978) and ‘deliberation’ (Schwab, 1983), as guiding principles for understanding classroom and school communities, and informing their teaching practice. We consider the potential of Schwab’s (1959/1978) notion of a ‘pragmatic intellectual space’ as a place where personal practical knowledge may form the foundation for teacher education.

We consider the role of teacher educators in contributing to and supporting a connection between personal practical knowledge and Schwab’s (1959/1978) notion of the ‘pragmatic intellectual space’. We explore ways in which teacher educators, teachers, and pre-service teachers may use this notion, along with notions of ‘particularity’ (Schwab, 1969/1978) and ‘deliberation’ (Schwab, 1973), as guiding principles for understanding classroom and school communities, and informing their teaching practice. Clandinin and Connelly (1992) emphasize the importance of examining the curriculum from the perspective of the teacher. They state,

Teachers and students live out a curriculum; teachers do not transmit, implement, or teach a curriculum and objectives; nor are they and their students carried forward in their work and studies by a curriculum of textbooks and content, instructional methodologies, and intentions. An account of teachers’ and students’ lives over time is the curriculum, although intentionality, objectives, and curriculum materials do play a part of it. (p. 365)

Paralleling the relationship between teacher experience and personal practical knowledge of teachers is the relationship between teacher educator experience and personal practical knowledge of teacher educators. While personal practical knowledge of teacher educators is an area in the field that seems to be in its early stages, we recognize the potential of this work to inform the work of teacher educators when preparing their preservice teachers for professional practice in complex settings.

Personal Practical Knowledge: A Concept Rooted in International Education Contexts

In thinking about how this idea of personal practical knowledge has been pulled into teacher education in helpful and positive ways, we feel it is incumbent upon us to acknowledge the many ways in which this concept has been and might be understood. Certainly, we see that coming to an understanding of an idea across cultural differences, as we find in a global perspective, shapes the construction of the experience that contributes to shaping teacher knowledge. Throughout this chapter, we have considered ways in which different cultures may understand personal practical knowledge in different ways. We share some of the existing literature to offer a glimpse of how the notion of personal practical knowledge of educators may be understood and expressed differently in different places around the world.

As in teacher education in a North American context, the concept of personal practical knowledge is used in three basic ways in contexts around other geographical regions and other cultural settings. Personal practical knowledge can be seen as a tool used by those in teacher education for the purpose of teacher professional development. It may be a means of working with preservice teachers, either to encourage them to understand their teacher identity or the continuities of experience that their students bring with them into the classroom. The third way that the idea of personal practical knowledge is used in teacher education is as a way of understanding the lives and work of teacher educators.

Earlier in this chapter, we shared two studies in which practicing, experienced (to more or lesser degrees), teachers, as participants in research were involved in using personal practical knowledge in ways designed to help them understand their classroom practices. Combining the Ariogul (2007) study with Tsui's (2004) investigation with another international use of personal practical knowledge captures how this idea has been transplanted and rooted within other geographical and cultural contexts. To reiterate, in each of these three examples, personal practical knowledge is used as a tool for professional development for practicing teachers who are at varying levels of experience. The role of the investigator is unclear as to whether these individuals are engaging in these projects within a role of teacher educator, or as education researcher, or both. That being said, in a third example of personal practical work in teacher education with experienced teachers found in an international context, this knowledge framework was used in a professional development programme with 14 early childhood teachers in Australia. Black (2002) reported on the four month intervention study that collected metaphors, drawings, personal writing, and conversations. The methods used to access personal practical knowledge of these teacher participants was termed 'cycles of reflective inquiry'. Kim, whose work was the data presented in the articles, reflecting in the understandings she took away from this personal practical knowledge work reported:

I have really examined how I feel about what I am doing. This has been helpful in clarifying my goals and aims as a teacher and for my future. Having the opportunity to talk to others has helped me feel that I am not alone and that teaching in childcare is challenging in many ways. (Black, 2002, p. 84)

Similarly, these shared sentiments are expressed by a teacher participant in the Ariogul (2007) study. Using personal practical knowledge as a way of helping teachers study and appreciate the knowledge base from, and in which, they are constructing and reconstructing knowledge is borne out in these international contexts.

The second way that personal practical knowledge is used in international contexts of teacher education is with preservice teachers. As with the studies involving practicing, experienced teachers, this concept is seen as a tool for self-exploration and understanding the contexts of practice in which they plan to work. We provide one example of this kind of study. Using this knowledge framework in quite a different approach, Tsang (2004) looked for connections between the utilizations of personal practical knowledge of preservice teachers, which was operationalized as

teaching maxims, and their interactive decisions. This research concludes that personal practical knowledge can be at odds with decision in the classroom and that the knowledge held by teachers is complex and complicated. Direct relationships between beliefs and actions are sometimes elusive. The relationship between knowledge and practice is blurred. This study is an interesting documentation of personal practical knowledge in teacher education. In the research the focus is on studying its place in the work of beginning teachers rather than in the lives and work of practicing teachers.

Then, as in a North American context, we find that teacher educators, internationally, find personal practical knowledge a helpful tool to use to examine their own practice. The research we present as an example bridges these two approaches, that is as a tool for work with teachers and as a means for self-reflection and development, but it also incorporates work with graduate students as well. From the outset, the term, personal practical knowledge, was bound to narrative inquiry, experience, teacher knowledge, and an understanding of curriculum as a life course. We explore the work of Elbaz-Luwisch, whose early work was foundational to the development of this conceptualization of teacher knowledge. Throughout her numerous publications, a unifying, continued reliance on and building upon the central tenets established in the 1980s research with her participant, Sarah, about whom she wrote in a foundational article, *The teacher's 'practical knowledge': Report of a case study* (Elbaz, 1981), and in a book entitled, *Teacher thinking: A study of practical knowledge* (Elbaz, 1983). Elbaz-Luwisch has many publications, but here, the focus in this review is placed on her most recent, *Autobiography and pedagogy: Memory and presence in teacher* (2013).

In this latest development of her thinking, Elbaz-Luwisch, who has in other research focused on teachers and teacher education, turns the inquiry inward to an examination of her autobiography. She traces her family histories as European Jews immigrating to Canada, Israel, and elsewhere in the years leading up to World War II. Through her personal exploration, Elbaz-Luwisch examines her mother's life and teachings, intimately connecting both with her work as a teacher educator. She examines these same powerful forces in her life with teachers and graduate students at her university, with the eye toward understanding how these understandings and stories infuse individuals' classrooms and school lives. In the final section of this book, Elbaz-Luwisch and her research participants study the experience of situating personal knowledge within contexts very different from ones in which the knowledge was constructed. Moving accounts are woven together through and with the deep and broad theoretical tapestry Elbaz-Luwisch creates in this book.

This compelling theme of transposing knowledge constructed within one context to another is echoed in other cross-cultural work featured here. The first is a study situated in Hong Kong conducted by Harfitt and Gram (2015), and the second is one conducted by Schlein (2010). Harfitt and Gram's work examining tensions described by experienced teachers from the United Kingdom when they assumed teaching positions in Hong Kong schools as 'expert' teachers suggested underlying differences in ideas about teacher knowledge. The tensions in teacher knowledge, when experienced teachers from places outside of Hong Kong are hired to teach in Hong

Kong schools, illustrates the power of context in shaping ideas about teaching. Expectations that their knowledge as experienced teachers would transfer easily into a Hong Kong context contributed to tensions in their work as they interacted and collaborated with their Hong Kong colleagues in school.

Research offering insights into interpretation of teacher knowledge cross-culturally and/or interculturally, as is done in Schlein's (2010) work, informs our understanding of ways in which knowledge about teaching in places beyond our own enriches our knowledge and potentially informs our work in teacher education.

Conclusion

This brief examination of the development of the concept of personal practical knowledge of teachers and teacher educators in an international context captures the essence of the notion of personal practical knowledge through its emphasis on the potential of this term to inform our understanding of the work of teachers. Our goal throughout this chapter has been to acknowledge the knowledge of teachers, to better understand the work of teachers, and to draw upon this knowledge as a resource for teacher education. Tracing the development of the term in the field of teacher knowledge provided a glimpse of the context in which recognition of the knowledge of teachers was established, and reasons for which it might have been a challenge to develop. As ideas about personal practical knowledge of teacher educators continues to grow, we are reminded of its potential as a resource for informing professional development for teachers, as well as highlighting possibilities for supporting further work on personal practical knowledge in North America and beyond.

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Chapter 16

Beginning Teacher Educators: Working in Higher Education and Schools

Jean Murray

Introduction

Teacher education across the world is increasingly positioned as a lever for achieving educational change in the school sector (Darling-Hammond & Lieberman, 2012). Reflecting this, the field internationally has experienced many and frequent changes. In countries as diverse as the USA, Australia, the Netherlands and Belgium, Nigeria and Columbia (see Furlong et al., 2009; Rubiano, 2013; Townsend, 2011), policy makers and educators relentlessly devise new routes for pre-service education and Continuing Professional Development, change the form and content of existing pre- and in-service programmes, institute new standards or competencies for student teachers to attain and put into place rigorous auditing or inspection procedures to evaluate the effectiveness of programmes.

Despite this plethora of activity in the field of teacher education, teacher educators themselves remain an under-researched, poorly understood and ill-defined occupational group (Murray, 2014). The amount of research on the group has certainly grown in the last 10 years but is still far from extensive (Davey, 2013; Izadinia, 2014; Mayer, Mitchell, Santoro, & White, 2011). Within this literature, researchers have explored the needs and experiences of beginning teacher educators, producing rich and revelatory accounts of tensions within the field. Although there are a number of studies of this sub-group, these ‘beginners’ making an important transition into the field rarely receive the degree of attention from researchers and policy developers which they undoubtedly deserve if they are to thrive in their new occupation.

This is a curious situation; international studies of education show growing consensus that good educators and the high quality of their teaching are the major

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influences on pupil learning (see, for example, Barber & Mourshed in *The McKinsey Report 2007*; OECD, 2005) but, although teacher education is now the subject of so much attention from policy makers, internationally, there is still little accompanying consideration of teacher educators – throughout their career courses – as the people central to teacher education and present throughout the teacher life cycle, modelling and exemplifying professional practice, and undertaking the research that informs much learning and teaching (Hamilton, 1998; Korthagen & Russell, 1995; Loughran, 2006; Lunenberg & Hamilton, 2008; Murray, 2002). The emphasis on beginning teacher educators in this chapter is not meant to imply that there is a fixed endpoint in the process of becoming a member of the occupational group at which an individual becomes a fully fledged teacher educator, with no further learning or changes in professional identity to come. It is fully acknowledged, rather, that professional change and learning continue across the career course.

The main aims of this chapter are as follows: first, to review the literature on beginning teacher educators, identifying their experiences, identity shifts and knowledge changes and aiming to analyse the commonalities and differences across the body of available research. Second, the chapter conducts a further review of the literature on the professional learning needs of beginning teacher educators and looking at a range of types of induction provision that aims to meet those needs. But it is impossible to conduct either of these reviews without contextualising the occupational sub-group of beginning teacher educators within the field of teacher education which they enter, the varied work they do and the general occupational group of teacher educators to which they eventually join. Similarly, the empirical studies of beginning teacher educators need to be read and understood through awareness of the research methodology and methods that have generated them.

This chapter therefore begins with three sections contextualising the research on beginning teacher educators: a section defining teacher education as a far from homogeneous field; a second section looking at the work of teacher educators; and a third looking at the problems around definitions and ownership of the occupational group. Here the commonalities and differentiations across this heterogeneous group are identified with particular relevance to beginning teacher educators as they enter teacher education in various international and institutional settings. Issues of methodology and methods are then discussed in order to enable understand how this body of research related to other research in and on teacher education. A further section reviews studies on beginning teacher educators including their motivations for entry, their experiences of transition, their identity shifts, including the need to acquire new senses of identity as teacher educators, new (or re-newed) knowledge bases created and the new or re-focused pedagogical skills required to teach intending and serving teachers rather than school students.

The main focus here is on teacher educators employed primarily within the Higher Education sector and therefore teaching in Higher Education Institutions or HEIs (universities, polytechnics or colleges of some type). There are, of course, a growing number of school-based teacher educators in some national systems (see, for example, Murray et al., in preparation, on England; Van Velzen & Volman, 2009, on the Netherlands) who work in schools with pre-service teachers, usually

undertaking roles far more extensive than those of the traditional mentors. As yet, however, there are very few research studies that focus explicitly on newcomers to this emerging occupational group. The next section looks at beginning teacher educators' professional learning needs during transition into Higher Education (HE) and highlights some examples of the induction provision that aims to address these. The conclusion summarises and discusses key issues around beginning teacher educators, their initial experiences of the field and the support for their induction and further professional development.

Defining Teacher Education as a Field

The field of teacher education is far from homogeneous and has long been a site of contestation between diverse academic and professional interests and national and local governmental influences. These interests and influences are located in and derive from the various historical, cultural, social, linguistic, economic and political aspirations and assumptions of each society, as 'translated' into different education systems. Teacher education in general – and pre-service provision in particular – has been a particularly contested area within the education system for a number of reasons. First, teacher education is clearly a major context in which the discourses and practices about what it means to be a teacher are transmitted and both produced and reproduced (hereafter '(re) produced' or '(re) production are used to denote this duality); one of the effects of this is that pre-service teacher education is often seen to have a major role in determining the types and quality of teachers entering the school system. The potential for control of schooling this offers has meant that, since the inception of organised systems of teacher training in the nineteenth century, national and local governments – and in many countries religious bodies – have been major stake holders in teacher education, again particularly pre-service. As indicated earlier, when the education system as a whole has been under scrutiny, teacher education becomes subject to changes, often radical and rapid.

Second, the principle of locating teacher education in HEIs is a tradition based on over 100 years of history in many countries across the world (see, for example, Dent, 1977 on England; Fraser, 2007 on the USA; Swennen, 2012, on the Netherlands). Many of the imperatives the field faces come from both HE and schooling. This has meant that there has long been a fundamental dualism in teacher education, with those involved in it necessarily referencing both worlds in their work, gaining their values and traditions from both settings, and playing out the resulting historical, social and political contestations in their practices, beliefs and values. Teacher educators are then involved in the (re)production of both educational discourses and professional practices; their work is a synergy that bridges both settings for teacher learning. The HEIs that offer teacher education programmes and the schools involved in partnerships with them are necessarily the pedagogical and institutional sites where tensions and contestations between these two worlds are played out. These tensions have often had adverse effects for the field. Schools

of Education,¹ for example, have often been perceived to have a low status in intra institutional academic and departmental hierarchies (see Ducharme, 1993; Labaree, 2004). Since pre-service work, in particular, often has “its own orthodoxy, its own way of doing things, rules, assumptions and beliefs” (Grenfell & James, 1998, p. 20), the relevance for the school sector of placing pre-service courses predominantly in the HE sector has been repeatedly questioned in some countries (see, for example, Chubb, 2012 and Hess, 2009 in the USA; Department for Education (DfE), 2015 and Gove, 2010 in England).

These factors and the aspirations and assumptions that inform teacher education are the background to its development into its current, often fiercely contested, forms. These have produced changing versions of what Popkewitz (1987) terms ‘the public discourses’ of teacher education that shift over time; here competing ideas and principles are often conceptualised and constructed as dichotomies (for example, training/education, academic/professional, academic/pastoral, theory/practice and subject-centred/learner or child-centred [see Maguire, 1993; Popkewitz, 1987]). Other ideas, such as partnership between HEIs and schools become hegemonic and largely uncontested within particular time frames. Particularly those who know and acknowledge the history of teacher education in their analyses can sometimes trace some recurring factors, themes and issues of the field beneath the surfaces of current public discourses. But, given the tendency of many to overlook that history (Fraser, 2007; McCulloch, 2011; Murray & Maguire, 2007; Reid, 2011), the discourses often serve to “dull one’s sensitivity to the complexities that underlie the practices of teacher education ... (by) a filtering out of historical, social and political assumptions” (Popkewitz, 1987, p. ix). This focus on the ways in which these public discourses work, often at the macro level, provides one explanation of why the complexities of the field at the micro level have often been overlooked. An example of this ‘over-looking’ is the relative scarcity of research into teacher educators as an occupational group, referred to earlier, and the way in which the importance of the occupational group has been downplayed over time.

The timeframe for writing this chapter is an interesting one internationally. Part of the response to the pressures on teacher education as outlined above, has been a ‘practicum turn’ or ‘practice turn’ in the field (see, inter alia, Conway, Murphy, & Rutherford, 2013; Grossman et al., 2009; Mattsson, Eilertson, & Rorrison, 2011; Reid, 2011). As Groundwater-Smith (2011, p. ix) articulates, this ‘practicum turn’ has involved exploring “professional practice knowledge and the ways in which our understandings impact upon the design and enactment of ... the practicum curriculum”.

Faced with the need to accommodate this ‘turn’, many universities have engaged in various forms of knowledge generation on/in practice, as part of their changing teacher education provision; this turn has, however, played out differently across various countries and institutional settings. In some countries, for example, the USA and England, it has resulted in “a hyper-emphasis on clinical practice –

¹This term is used here to describe the academic organisational units variously known as Schools, departments or faculties of education.

extensive immersion in the field, (and) limited (or no) emphasis on research or ‘theoretical’ course work” (Goodwin & Kosnik, 2013, p. 335). In countries where these emphases are found traditional HE routes in teaching are often under threat, alternative routes into teaching proliferate and HE-based teacher educators see themselves as living in a hostile political landscape and subject to sustained criticisms (Gilroy, 2014; Goodwin & Kosnik, 2013; McNamara & Murray, 2013a, b).

In contrast to this depressing picture, in parts of Continental Europe the ‘practicum turn’ has instead involved following the Finnish model in which ‘research informed clinical practice’ is part of pre-service provision in both universities and schools. This emphasis, together with the qualifications framework agreed in the pan-European Bologna Agreement in 1999, has contributed to ‘a university turn’ in teacher education (Murray, 2015). Following that Agreement, some countries, including Finland and Portugal, already have all pre-service programmes at Master’s level, and others including Norway, the Netherlands and the Republic of Ireland have made significant policy moves in this direction. A master’s level of qualification in pre-service involves more time in the university and more sustained student teacher involvement in research (BERA-RSA, 2014), signifying national commitments to strengthening the ‘academic’ and ‘cognitive’ elements of teacher education (DEL, 2014, p. 44). In these renewed and renewing landscapes of teacher education within universities then, HE-based teacher educators may well undertake their work with increased levels of confidence and security.

How Can Teacher Educators and Their Work Be Understood?

Teacher education can be conceptualised as an ambiguous, ill-defined and far from homogeneous field (Bourdieu, 1987) within the general discipline of education (Furlong, 2013). Teacher educators’ knowledge bases are complex and difficult to define, characterised in part by the uncertain and ill-defined nature of professional knowledge. Further complexity is added because of the specific, but sometimes tacit and under-valued, pedagogical knowledge and skills needed to teach teachers (Korthagen & Russell, 1995; Loughran, 2006). These complexities and uncertainties affect the work and status of teacher educators in many countries, often causing them to be (wrongly) positioned as only ‘semi-academics’ (Ducharme, 1993; Labaree, 2004; Murray, 2002) and to be effectively overlooked or dismissed by policy makers.

Some researchers assert that there is a strong collective sense of vision for teacher educators (see, for example, Kennedy, 2006); others dispute this sense of a unique, collective vision or of any kind of occupational habitus (Bourdieu, 1987) across or within the professional group (Mayer et al., 2011; Murray, 2014). The stance adopted here is that a collective habitus (or vision) in a simple sense has to be questioned, in part because of the lack of homogeneity in the field and the heterogeneity of the occupational group. Within our national and local teacher education systems, however, we form occupational groups and sub-groups as teacher educators; these

shift as the group membership changes, approaches to pedagogy and research alter and local, institutional or national requirements vary. Within those groups there may be some diverse, individualised ideas about personal practice, particularly about pedagogical and research approaches and their theoretical underpinnings, but there may well be agreement on the basic principles and key values underpinning those practices. Many teacher educators, for example, would assert their commitment to rich models of teacher professionalism, to social justice and to broadly constructivist models of pedagogy (Loughran, 2006). In many national systems, such as England, where teacher education is highly regulated, attempts by the state or by the HEI to enforce conformity may also reinforce the sense of a communal identity as teacher educators resist or accommodate external enforcements (Boyd & Tibke, 2012; Czerniawski et al., 2013).

Certainly what makes teacher educators different from other groups of academics and professional educators is that supporting student and serving teachers as they learn to teach or further develop their existing practice are the essential focuses of their work. Previous research into teacher educators' work, knowledge and identities emphasises the centrality of two factors. First, teacher educators' constructions of their knowledge are determined in part by the ways in which they understand the processes of (re) production of the knowledge and practices of schooling during teacher education programmes (Atkinson & Delamont, 1985) and their understanding of their own roles and identities in these processes (Lunenberg, Dengerink, & Korthagen, 2014; Murray, 2002). Second, within these constructions, the importance of service to education is an integral part of how teacher educators see their professional missions (Korthagen & Russell, 1995; Loughran, 2006; Swennen & van der Klink, 2008). How teacher education is understood and lived then, as a social and moral enterprise which 'serves' education and is part of a contribution to 'the public good' and to achieving social justice, is seen here as an essential part of the confirming strength of teacher educators' knowledge bases and identities, especially as they enter the field and begin to forge their practices as educators.

Following Murray (2002), if schooling is conceptualised as the *first order field* for the (re) production and transmission of the discourses of education, then school teachers may be seen as *first order* practitioners and as the main agents within the field. Teacher education is another, closely related field which is also involved in the (re) production of education but at one remove; this sense of remove is partly because of the location within HEIs of the majority of pre-service courses, but also because the primary focus of this field is the learning of student and serving teachers who then go on to address the learning of school students. Hence teacher education may be conceptualised as a *second order* field and its agents, the teacher educators, may be understood as *second order practitioners* (Murray, 2002). As key agents of the second order field, they are involved in (re) producing the discourses and practices of schooling with and for their students; they are similarly involved in the (re) production of academic discourses about education as their discipline or subject in HE. Teacher educators may once have been school teachers (or *first order practitioners*) working in the *first order field* of schooling, but their work has changed; they

have become teachers of teachers operating in teacher education and the different pedagogical settings and practices it offers (Loughran, 2006).

Second order practice as a teacher educator demands new and different types of professional knowledge and understanding, including different and extended pedagogical skills (Berry, 2007; Korthagen & Russell, 1995; Korthagen, Loughran, & Lunenberg, 2005; Koster, Korthagen, & Wubbels, 1998; Loughran, 2006; Swennen & Van der Klink, 2008), differentiated from those required of schoolteachers. In some national systems, having experiential knowledge of teaching in the school sector is seen as vital for teacher educators, particularly those working on the 'practical preparation' elements of pre-service courses or undertaking supervisory work in schools. But this professional knowledge – and pedagogical skills it often brings – are not in themselves enough, as becomes clear through analysis of beginning teacher educators' experiences and struggles to generate new forms of pedagogical practice for teaching in HE.

Scholarly and research activity is usually seen as an integral part of the complexity of teacher educators' work and their professional expertise as second order practitioners. As Cochran-Smith (2005) in a discussion of teacher educators' roles asserts "part of the task of the teacher educators is functioning simultaneously as both researcher and practitioner" (p. 219). She refers to the "reciprocal, recursive and symbiotic relationships" between scholarship/research and pedagogical practice as "working the dialectic" (p. 220). From her perspectives such symbiotic relationships have 'fed' and enriched teacher education. The scholarship and research involved in knowledge of an area, subject or discipline within education and the pedagogical awareness of how to teach it in HE are, then, often inseparable. Taking this view of teacher educators' work involves seeing teaching, scholarly and research activity and service as integral and synergistic. But the issues around research in, on and for teacher education are far from straightforward. As Cochran-Smith and Demers (2008) rightly comment,

The history and development of research on, in, about and for teacher education is nested inside of, but also braided with, larger developments in the history of education research generally and in the development of education as a field of study within the university. (p. 1009)

Issues of Definition and Differentiated Occupational Groups

Internationally, teacher educators are acknowledged to be a heterogeneous occupational group (see, *inter alia*, Davey, 2013; Izadinia, 2014; Martinez, 2008; Van Velzen & Volman, 2009), working in many roles to support pre- and in-service teachers, usually from within a type of HEI, as indicated above. There has long been an acknowledged "problem of definition" (Ducharme, 1993, p. 2) with discussing the occupational group, in part because of the diverse roles and work patterns within the field, but also because of issues around self- and communal-ownership of the term. This definition problem is not new. Taking a historical view by analysing the

literature from the USA in the late twentieth century shows a number of researchers (including Ducharme 1993; Ducharme & Agne, 1989; Lanier & Little, 1986) commenting on it. Types of teacher educators listed by Ducharme (1993, p. 6, citing Ducharme, 1986) in the 1980s and 1990s, for example, were “school person, scholar, researcher, methodologist, and visitor to a strange planet” differentiated by the degree by which individuals’ behaviours were judged to be like those of school teachers or of academics in other disciplines within HE. Some of these older studies (Ducharme, 1993; Lanier & Little, 1986) construct a deficit model in which some teacher educators are seen as adapting poorly to academia, as at best only ‘semi-academic’²; this deficit is often associated with pre-service work and continuing to adhere to the norms of schooling in HE. Other later researchers in different national contexts adopt similar types of classification, although without the sense of deficit model; for example, see occupational sub-groups of teacher educators positioning themselves in four ways, as (still) a school teacher, a teacher in higher education, a teacher of teachers or a researcher.

Most of the available research on teacher educators shows them to be academics (that is, faculty members or academics) in an HEI of some type, as indicated previously; most of them work within Schools or Departments of Education, although as noted below, an increasing number work in schools in some countries. Contractual bases for work in HE vary from full-time to part-time or casual (hourly paid); some educators will be on secure, permanent contracts, others on temporary ones which bring little or no job security. Changes within the HE sector internationally, to be discussed below, have led to an increase in the casualisation of the workforce in the last 10 years (Marginson & van der Wende, 2009). Part-time posts, often working across both HEI and schools, are also increasing in teacher education in some countries. A number of countries follow the system found in the USA and Canada of tenure and non-tenure tracks for academic faculty; other countries differentiate between ‘full’ academic contracts (in which academic work includes research, teaching and service) and ‘teaching-only’ contracts (in which formal research engagement is not required).

The HE sector in every country is, of course, reflects an essentially hierarchical system, with universities occupying positions in that system in relation to their historical and contemporary missions and functions. Whilst the HE system world-wide has certainly expanded and become more diversified over the last 20 years (Marginson & van der Wende, 2009), in many countries global quests for excellence have also provided further reinforcement for many of the traditional signifiers around institutional status. For example, the research ‘excellence’ and ‘productivity’ of each institution are often key parts of the methodologies used to draw up international and national league tables. This has led many universities to place increasing significance on research activity and quality (Stromquist, 2002), particularly in countries, like the UK, Australia and New Zealand where research audits

²Parallels may be drawn between the analysis of these teacher educators as semi-academics and Etzioni’s (1969) analysis of teachers and other highly feminised occupational groups as semi-professionals.

occur regularly, or for research-intensive universities in countries like the USA and Canada where the HE system is heavily marketised.

Internally, HEIs are far from homogeneous entities, not least because of the ways in which the fields within them value differing practices and types of knowledge (Becher & Trowler, 2002). In some research-intensive universities, education in general – and teacher education, in particular – is still not highly esteemed in relation to other disciplines (Furlong, 2013; Labaree, 2004). But, in contrast, in many newer universities and colleges, teacher education may be highly valued as an important part of the core business (and financial health) of the institution (Mayer et al., 2011).

Beyond contractual and institutional differences, further differentiation within the occupational group occurs through the types of routes on which educators work and their roles within each taught programme. For example, in under-graduate routes where students study subjects both within the School of Education and in other subject disciplines, there may be a core group of teacher educators involved in teaching curriculum methods or foundation courses or preparing students for the practicum. Many HEIs also employ teacher educators to support the practicum, whether by a direct model of ‘supervision’ involving observations and assessments of student teaching, or by working in partnership with mentors and schools to support student learning. Most of these workers in the field would probably claim to be teacher educators, thus forming the ‘core’ of the occupational group.

Outside this ‘core’ group, there may be other academics teaching other subjects or disciplines to future teachers. Here issues around what may be termed ‘claiming, owning and enacting’ inclusion in the occupational group emerge as many of these academics would not automatically see themselves as teacher educators. Indeed, given the scale and organisational methods of many university education systems, they may not even be aware of the presence of student teachers in their lecture halls or seminar rooms. Yet policy shifts suggest widening the occupational group to include this group of academics. A recent European report (The European Commission, 2013, p. 8), for example, defines “*all those who actively facilitate the (formal) learning of student teachers and teacher educators*” (my italics) – *anywhere* in the school or HE systems – as teacher educators. This important report – issued with advisory status across all 28 European Union member states – identified the importance of teacher educators in improving European school education systems. As well as this inclusive definition of teacher educators, it also included recommendations for creating a coherent and comprehensive policy in support of all members of the occupational group. In this inclusive definition of teacher educators then, academics will also be considered part of the broad occupational group, even if they do not easily ‘own’ or ‘claim’ these definitions.

Educational change may also trigger shifts in who is defined as a teacher educator. In Scotland, for example, the Donaldson Report (Donaldson, 2011) recommended major changes to pre-service teacher education. These included the introduction of under-graduate teaching degrees that combined “in-depth academic study in areas beyond education with professional studies and development” and thus involving “staff and departments beyond those in schools of education” (p. 88).

The Schools of Education have therefore needed to engage far more with academics from other disciplines who now teach on those degrees, many of whom will now be positioned as teacher educators, given that they teach intending teachers. These reforms, currently being implemented, will necessarily involve just such a ‘broadening’ of the occupational group.

On many post-graduate courses, particularly those of only 1 year duration often found in Anglophone countries, teacher educators’ work is likely to be located only in the School of Education and to focus in the main on practice-orientated curriculum and methods courses (Howson, 2015; McNamara, 2010). In countries offering Master’s level post-graduate courses of 2 or more years of duration, particularly those following Nordic models, teacher educators will include those teaching courses on defined as subject matter, pedagogical content knowledge, educational studies, research methods and preparation for the practicum (Kansanen, 2013, p. 281).

If the fragmented and diverse nature of staffing within HEIs posed problems in defining teacher educators as an occupational group, then policy shifts towards greater degrees of partnership between HEIs and schools or school-led teacher education have exacerbated the problem of definition in some countries. Again, using Scotland as an example, further recommendations in the Donaldson Report were for stronger and more extensive partnerships between universities and schools, in which school staff were encouraged to take on greater responsibility as “teacher educators” (p. 98). Recommendation 39 in the Report extends the definition of ‘who counts’ as a teacher educator by firmly stating that “all teachers should see themselves as teacher educators and be trained in mentoring” (p. 94). This, of course, mirrors the similarly inclusive definition adopted the pan-European report quoted above (The European Commission, 2013).

Similar definitions of schoolteachers as teacher educators are also found in the school-led or school-based teacher education systems now rapidly emerging in the Netherlands and England (McNamara & Murray, 2013a, b; Van Velzen & Volman, 2009). In England, where partnership between schools and HEIs has been mandatory for more than 30 years, both mentors in schools and HE-based faculty have long been positioned as having key roles in the education of pre-service students. But recent policy changes introducing an alternative route called School Direct have brought greater numbers of school-based teacher educators into the pre-service system (Boyd & Tibke, 2012; Brennan, Murray, & Read, 2014). These educators often take on full roles in recruiting, teaching and assessing pre-service teachers. In other countries, including Norway and the Netherlands, the development of mentoring as an expert form of teaching about teaching has also elevated this sub-group of teachers, bringing their work and identities much closer to those of some teacher educators (Ulvik & Sunde, 2013). In teacher education in countries such as the USA, theories of ‘third space’ originating in hybridity theory (Bhabha, 1994) have been used to break away from some of the traditional binaries that haunt teacher education and to create a ‘hybrid’ space for practice. Zeichner (2010, p. 94), for example, sees “third (*hybrid*) space” as “a lens to discuss various kinds of boundary crossings between higher education and schools involved in teacher education”. This has

generated models of ‘hybrid teacher educators’ (Klein, Taylor, & Onore, 2012; Martin, Snow, & Torrez, 2011) in which educators may work in schools and/or universities, but their practice is always conceptualised as happening in and around that ‘third space’; this practice bridges or transcends both physical locations and the binary knowledge domains they may traditionally claim.

As the description above indicates then, there will always be distinct structural and locational differences within the occupational group of teacher educators, particularly if an inclusive definition of ‘who counts’ as a member is taken, as in the Donaldson Review (2011) and the European Commission report (2013). These differences exist even before any considerations are taken of the – often intersectional – dimensions of gender, ethnicity and class, alongside personal experiences, attributes, qualifications and entry routes.

Large-scale demographic studies of teacher educators seem to have fallen out of research fashion, but in the past such studies (for example, the RATE studies in the USA, as analysed by Ducharme & Ducharme, 1996, and Turvey & Wright’s 1990 study of Australian teacher education) showed the occupational group then to be predominantly male and Caucasian in ethnic origin, with the few educators from ethnic minority groups largely found in urban areas. Goodwin and Kosnik (2013, p. 341) describe teacher educators in the USA as a group predominantly “mono-cultural, mono-racial in make-up”. In this study women were more likely to work in elementary or primary teacher education and in school-focused work (see also Acker, 1996; Acker & Feuerverger, 1997 writing from a Canadian context in the 1990s). The American data from the RATE studies also showed that those in pre-service were also more likely to be women and to work longer hours for less reward in terms of promotion and pay than other groups.

Gender patterns of participation in academic work as teacher educators vary over time, however, according to variations in the status of the work and the allocation of roles within it. More women came into teacher education in England, for example, as the academic status of the work was perceived to decline from the mid 1980s onwards (Murray & Maguire, 2007; Maguire & Weiner, 1994). Thompson’s analysis (2007) of gendered middle management roles for teacher educators in England in the last decade also shows how these positions tended to be occupied by women who undertook most of the hard ‘academic housework’ or bureaucratic tasks associated with pre-service teacher education.

The small amount of data on teacher educators’ socio-economic or class positioning (for example, Ducharme & Ducharme, 1996) paints a picture of these educators as being lower middle or middle class in social origins; their families have restricted experience of HE and their own university education has been at lower ranking institutions. But it should be noted that these studies, like many of the demographic surveys, are now dated. Many aspects of this picture of the social, economic and educational biographies of teacher educators are also found in the also dated study of Lanier and Little (1986). In a similar timeframe teacher educators’ ideologies were defined as essentially showing social orientations towards conservative discourses and values rather than radical or transformative (Grundy & Hatton, 1995). In these and similar definitions teacher education is essentially conservative and (re) productive of the status quo.

Van Velzen, Van der Klink, Swennen, and Yaffe (2010), drawing on international data, identify the two main routes into work as: first, teacher educators who have previously worked as school teachers, often with some peripheral involvement in teacher education; and second, teacher educators who hold doctorates – whether in education or in another discipline – and enter HE-based teacher education to continue their academic careers. In their study new teacher educators from the first group rarely enter HE with doctorates or sustained experience of doing educational research. Certainly, as Lunenberg and Hamilton (2008) note, having school teaching experience is now a common expectation in many national contexts. This route of entry is certainly found in countries such as England where experiential knowledge of teacher education is given very high priority. Indeed in this particular context, the need for all teacher educators to have had experience of working in schools has become part of the ‘common sense’ of teacher education work and is an essential recruitment criterion (Ellis et al., 2012). One consequence of this is that experiential knowledge of schooling and identities as ‘once-a-teacher’ form the foundations of pedagogy for many teacher educators, both beginning and experienced (Murray, 2002, 2014).

The second route of entry is found, for example, in countries such as Israel and in some research-intensive universities in North America (Van Velzen et al., 2010) where teacher education has an increasingly academic focus. Academics entering teacher education with a doctorate may or may not have classroom experience; if they have no such experience, then gaining that experience may become part of their induction. In a number of countries including Norway, the Netherlands and Australia both entry routes exist side-by-side. This dual pattern raises particular questions around the type of induction provision needed for new teacher educators, an issue which is discussed in more detail later in this chapter, using a Norwegian case study of two very different beginning teacher educators and the support they require (Smith, 2011). As Davey (2013, p. 48) points out, it is also possible to identify a third – or hybrid – group across these two basic pathways which she defines as “the practitioner pathway” and “the academic pathway”; this third, hybrid group consists of those who combine work as a teacher educator with doctoral study. This pathway is found in countries such as the USA and Canada where part-time doctoral study in education, alongside part-time or full-time work as a teacher educator is common.

In combination, this multiplicity of factors means that there are high levels of diversity and difference to be considered within the occupational group, which certainly helps to explain the “problem of definition” (Ducharme, 1993, p. 2) stated above. The implications of this heterogeneity for beginning teacher educators are that these newcomers to the occupational group may not only be entering through often unplanned, ‘serendipitous’ entry routes (Martinez, 2008; Mayer et al., 2011), bringing with them varying qualifications, types of experience and personal attributes, but going into different types of roles and work patterns in very different types of HEIs. Furthermore, they will be filtering their experience of becoming a teacher educator through their personal value systems and orientations to teaching and teacher education, as they begin the process of (re) constructing their professional identities. The available empirical research on beginning teacher educators,

reviewed below, needs then to be read and understood within these occupational traditions of diversity, difference and attention to values and personal orientations.

Studies of Beginning Teacher Educators: Issues of Methodology and Methods

Empirical studies of teacher educators in general – and beginning teacher educators in particular – usually sit within interpretivist or action research/practitioner research/self-study paradigms, using some type of qualitative methodology. Much of the research is undertaken by those who either are – or have recently been – beginning teacher educators themselves or by more senior educators with strong interests in the field and in teacher educators. These tendencies mean that most of the available research is small-scale and practice-based, that is conducted and reported by teacher educators who are practitioners and/or researchers and policy makers in the field, and based on self-report methods. There are a large number of single studies, unfunded by external grants, and also a scarcity of longitudinal research studies, drawing on large data sets (Menter, Hulme, & Murray, 2010).

In these characteristics, research on teacher educators has much in common with the general characteristics of teacher education research (see, for example, analyses of national research in New Zealand Cameron & Baker, 2004, Australia Murray, Nuthall, & Mitchell, 2008 and the UK Menter et al., 2010). This is not to imply that these characteristics of teacher education research are *necessarily* problematic in themselves, but they do limit the coherent accumulation of research findings and therefore the capacity for impact on the field (Menter et al., 2010). Even in the USA – where the body of research in and on teacher education is probably more diverse and certainly more substantial than in many other countries, including some large-scale, longitudinal studies – the multitude of small-scale studies can lead to a perceived lack of coherence (Cochran-Smith & Zeichner, 2005, p. 2). This can lead to lack of impact on policies and policy makers and on practice – beyond the level of the individual and her/his immediate institutional setting.

A considerable number of the available studies of beginning teacher educators are based on self-study research methods. The self-study tradition (Loughran, 2006; Russell, 2004), growing rapidly particularly in North America and Australia, foregrounds the importance of analysing the practices, experiences and processes of teacher education from the inside. It validates and respects the knowledge gained through practising in the field (Hamilton, 1998) and encourages teacher educators to research their own practices in systematic ways. As Russell (2004) identifies, it therefore has its roots in a variety of older traditions including action research, practitioner research and reflective practice. In 1999 Zeichner (1999, p. 7) referred to self-study as the most significant development in teacher education research at that time. More recently, Pinnegar and Hamilton (2009, p. 103) defined self-study as “a systematic research methodology that attempts to examine and improve professional practice settings”. This research tradition -and the studies resulting from it (see, inter

alia, Bullock & Ritter, 2011; Dinkelman, Margolis, & Sikkenga, 2006; Williams, Ritter, & Bullock, 2012) – have undoubtedly made a major contribution to understanding how beginning teacher educators experience their entry into teacher education work and the identity shifts and knowledge development which occur.

The self-studies of and by new teacher educators either draw solely on defined self-study methods (see, for example, Williams & Ritter, 2010; Butler et al., 2014) or create hybrid methodologies using these methods alongside other qualitative research approaches (see, for example, Dinkelman et al., 2006; Newberry, 2014). At their best, self-studies are clearly methodologically rigorous. An example here would be the work of Wiebke and Park Rogers (2014) which draws on methods, including systematic reflections on teaching and a collaborative journal created with a critical friend, to collect data which is interpreted through rigorous analytical methods and checked for validity and reliability (Loughran & Northfield, 1998). A further example of rigour in the self-study tradition is the work of Dinkelman et al. which deploys a hybrid methodology using case study in combination with self-study methods in an open and transparent research design. Within a broader case study, the specific aim of the research was to support a “formal and systematic inquiry” (ibid, p. 9) by two beginning teacher educators in a research-intensive university in Canada exploring their own progress over the first year in teacher education. Data collection instruments include semi-structured interviews, field observations of the beginning teacher educators’ teaching, artefacts of their practice and the completion by both practitioners of reflective journals. The processes for the inductive data analysis are detailed, particularly the recursive nature of the collection and analysis of data in which the analysis became in effect “a second data source” (p. 11).

Other types of research studies on beginning teacher educators are conducted within the interpretivist paradigm, often using conventional qualitative methods with interviewing being a favoured data collection tool. The study of Harrison and McKeon (2008) offers a strong example of this type of research, reporting as it does an exploratory case study of five beginning teacher educators over the first 2 or 3 years of their new careers in five different types of HEIs in England. This study is unusual in taking a longitudinal view of development. Semi-structured interviews with each participant, repeated at least three times a year over the timeframe in question, were the main data collection instruments. Alongside biographical profiles for each teacher educator, these interviews tracked the perceived experiences and patterns of progress for each individual, finding commonalities and differences in the process. Murray and Male’s (2005) study of a broadly similar sample group of 28 beginning teacher educators in England also used interviews and biographies as the data collection methods, but over a narrower timeframe.

Many of the self-studies are written by teacher educators who are or have been simultaneously both doctoral students and beginning teacher educators (see, for example, Murphy, McGlynn-Stewart, & Ghafouri, 2014; Ritter, 2007; Wiebke & Park Rogers, 2014). There are few self-studies from teacher educators entering HE without school experience, one notable exception being the work of Newberry (2014). Other types of qualitative studies have often been carried out by teacher

educators with a particular interest in induction and further professional learning for their occupational group.

The body of research on beginning teacher educators is, then, written in the main by teacher educators with varying degrees of experience of working and researching within the field. It is not only small in terms of quantity but also limited – at least in comparison to other forms of educational research – in terms of the methodologies and methods used. As indicated earlier, this is not to imply that these characteristics are necessarily problematic; much of the research on beginning teacher educators, for example, has contributed greatly to understanding the field from insider perspectives. But the limitations do mean that the findings of the studies reviewed below need to be read with consideration of those methodological issues, particularly in terms of issues around their scale, uses of self-report data collection methods and researcher positionality. Furthermore, to reiterate Cochran-Smith and Zeichner's (2005, p. 2) point from earlier arguments, it is difficult to achieve the coherent accumulation of research findings and therefore the capacity for impact and improvement in teacher education through this body of research.

Studies of Beginning Teacher Educators in Higher Education: Substantive Issues

A considerable number of the studies of beginning teacher educators in various national contexts, conducted since the turn of the century (see, *inter alia*, Dinkelman et al., 2006; Kitchen, 2005; Kosnik, et al., 2012; Martinez, 2008; Trent, 2013; Williams et al., 2012) are written by or about educators making the transition from school teaching into teacher education. Many of these studies identify that the transition between these two types of work is often stressful, with many teacher educators having initial difficulties in adjusting to the norms and expectations of HE. These are basic patterns of transition which seem to persist over time as analysis of a number of older studies, also conducted in various national contexts shows (see, *inter alia*, Acker & Feuerverger, 1997; Guilfoyle, Hamilton, Pinnegar, & Placier, 1995; Hatt, 1997; Nicol, 1997; Pinnegar, 1995; Sinkinson, 1997). Some of these broad patterns also often hold true, despite considerable variation in the types of HEIs in which the teacher educators and in much of the work they are asked to undertake. Nevertheless, further analysis of the literature does indicate subtle variations and differentiations, particularly around identity changes, role expectations and personal biographies.

For many new teacher educators, there is something of chance or serendipity about their career change; in this sense teacher education is the 'accidental' career (Mayer et al., 2011), with some new educators recruited on a seemingly casual basis from schools involved in pre-service programmes and others entering after undertaking part-time, casual work. Even with this 'chance' factor around the initial recruitment approaches, all the educators have made conscious choices to take up

those offers. What then were their reported motivations for becoming a teacher educator? The change in work may be undertaken for a variety of reasons including to seek greater personal autonomy, to become involved in research, to have a greater influence on the development of the school sector through teaching students, to seek further professional advancement, to pursue subject-centred interests and commitments and to focus on quality teaching in HE rather than a school system where performativity agendas dominate learning (Davey, 2013; Dinkelman, 2011; Dinkelman et al., 2006; Mayer et al. 2011; Van Velzen et al., 2010).

As indicated earlier, the majority of the studies focus on individuals with school teaching experience before they become teacher educators within an HEI. Many of these studies portray the transition from school to HE as characterised by new considerable challenges, 'identity shock' (Davey, 2013) and subsequent identity changes, and distinct shifts in knowledge and pedagogies. Themes of 'survival', anxiety about 'fitting in' and striving to make sense of HE work and its multiple demands are dominant in the accounts of life for beginning teacher educators (Boyd & Harris, 2010). There is a strong sense across many of the accounts of entering a new world, with a new language and ways of working and of 'masquerading' in Higher Education (Murray & Male, 2005). Part of this adjustment, particularly for those moving from school teaching, is coming to terms with the workplace itself, with greater degrees of isolation and the individualised focus of academic life within a huge HE organisation, in contrast to the smaller, more communal and focused structures in place in schools (Dinkelman et al., 2006; Van Velzen et al., 2010; Williams & Ritter, 2010). Similar themes of isolation and coming to terms with new institutional structures can also be traced in the studies of teacher educators without previous school teaching experience (see Newberry, 2014). Butler et al. (2014) talk of the 'guarded vulnerability' of the beginning teacher educators in their learning community members.

Another recurring theme across the studies of beginning teacher educators is that of making a "distinct and stressful career change, characterised by high levels of uncertainty and anxiety" (Murray & Male, 2005, p. 129). For Pinnegar (1995, p. 80) transition is clearly an emotional process; there are feelings of a "pervading sense of vulnerability and an uncertainty about what things mean and how to make sense of them". Other feelings about the early years of HE work are of being 'deskilled' (Boyd & Harris, 2010), of challenges and struggle (Martinez, 2008) and of getting by (Mayer et al., 2011), with professional unease and discomfort characterising the early stages of teacher education work. The strong senses of an emotionally raw and often far from comfortable transition and a distinct career change are recurring themes in many of the studies of beginning teacher educators, as are the needs to forge new identities and accommodate old ones, to acquire new knowledge and to develop new pedagogical skills. All of these themes serve to underline the significant differences between being a school teacher and becoming a teacher educator. In the sub-sections below, the themes are outlined and analysed.

Identity and Transition

Finding identity changes occurring during any career transition is far from surprising, but the strong sense of ‘identity shock’ in the literature on beginning teacher educators is marked, as are the emphases on the creation of new identities and the maintenance of old ones.

Because another chapter in this volume focuses directly on the identity of teacher educators, the focus here is deliberately limited, looking only on the issue of identity change during transition into HE work and not attempting to duplicate the theoretical perspectives on identity. Identity in this chapter – as in many of these studies of beginning teacher educators – is assumed to be multiple and changeable, responsive to shifts in both contextual and personal factors. Lunenberg and Hamilton (2008) see the personal as fore-grounded in the formation of the multiplicity of teacher educator identities. Dinkelman (2011) draws on a similar construction, but uses it to emphasise the importance of personal choices made in response to the challenges posed by sometimes conflicting roles and expectations within constraining work context. He states that,

Teacher educators shape their identities in the ways that they resolve competing demands on their time, in decisions to work towards continuous programme development, in the choice to trouble their own practices as teacher educators, in taking a stand to resist the ‘thin’ forms of accountability and other bureaucratically imposed schemes that actually undercut their efforts to better educate pre-service teachers and those students they will eventually serve. (p. 321)

Using these kinds of theoretical lenses then, identity may be seen as multiple and fluid, created through the interaction of the personal – that is the attributes, orientations, values and aspirations which go to create the habitus (Bourdieu, 1987) as the engrained and engraining ways of being – and the professional – that is the general cultural and institutional expectations and demands and the specific job demands encountered during adaptation to the new work of teacher education. This kind of theoretical perspective on identity is also found in Gee’s (2000, p. 99) understanding of a continuing but changing core identity or ‘I’ which exists alongside and in interaction with various social – group or collective – identities. These are constructed through inter-related perspectives on what it means to be recognised as a certain type of person (p. 105) or here, as a member of the broad professional ‘group’ of teacher educators working in particular contexts.

As Goodwin and Kosnik (2013, p. 334) comment, identities as teacher educators are constructed over time, rather than being automatically linked to the acquisition of the new role as a *second order* educator and the start of work. Taking on an identity as a teacher of teachers, alongside acquisition of the knowledge and skills needed to enact this *second order* practice confidently, is a recurring theme in some of the literature (see, inter alia, Dinkelman et al., 2006; Harrison & McKeon, 2008; Kitchen, 2005).

Some beginning teacher educators live with fears of losing the ‘street credibility’ of being a school teacher (ibid; Murray, 2002). Tendencies to frame identity “through

the lens of the ex-school teacher” (Loughran, 2006, p. 13) have, as noted above, been found across decades. For some of this group, ‘identity maintenance’ – specifically continuing to maintain a teacher identity (Murray, Czerniawski, & Barber, 2011; Williams et al., 2012) whilst working in HE-based teacher education – is certainly very important. This kind of ‘identity maintenance’ seems to serve important psychological functions in preserving the sense of past identity as once-a-school-teacher in conjunction with the new developing identity as second order educator. In Dinkelman et al.’s (2006) study, for example, one of the beginning teacher educator authors/research subjects, Jason, has a powerful sense of guilt about ‘abandoning’ the classroom and experiences a “felt contradiction between inspiring new teachers about teaching and having just left the profession” (p. 13). Both the teacher educators in this study felt themselves to be “expatriate teachers in a new world of teacher education” at times (p. 18), and to assuage his sense of guilt about leaving school, one returns to teach there during his summer break.

But the maintenance of a teacher identity also has professional importance for those undertaking roles which requires them to go into schools frequently to supervise the practicum or to work with mentors and co-operating teachers. And in a pre-service system, such as that found in England, where the knowledge base of teacher education is strongly centred around experiential and ‘practical’ knowledge of schooling, being able to cite school experience and to position oneself as ‘still-a-school-teacher’ is important professional capital. In both Murray’s (2014) study and Harrison and McKeon’s (2008) work, beginning teacher educators in both sample groups used their now past teacher identities to position themselves as powerful and credible teacher educators who ‘understood’ schools and schooling. As indicated earlier in this chapter, in some studies of teacher educators (Ducharme, 1993; Lanier & Little, 1986), adhering to a schoolteacher identity in HE has been identified as a deficit model. But more recent studies show that there are clear circumstances in which such identity maintenance may be understood not as ‘deficit’, but as either the strategic deployment of valuable capital, as in the two English studies above. Or, as in Dinkelman et al.’s study (2006) and the work of Williams et al. (2012) such maintenance is a part – perhaps temporary – of the process of identity shifting and reconciliation during a time of career transition. And as Williams and Ritter (2010, p. 90) state, “one identity is not discarded in favour of the other”.

Requirements to engage in research also trigger identity changes in a number of studies with research sometimes seen as daunting, time-consuming and a distinct part of the differences between the worlds of HE and schools (Boyd & Harris, 2010; Davey, 2013; Van Velzen et al., 2010). Attitudes to undertaking research and institutional expectations vary greatly amongst beginning teacher educators (Dinkelman et al., 2006; Mayer, et al., 2011; Murray, 2014). This is not helped by the mixed messages which some HEIs give out about the relative values of research and teaching in teacher education (Dinkelman et al., 2006; Murray et al., 2011). Some new educators reject any sense of having or developing a researcher identity, clearly seeing ‘researcher’ and ‘practitioner’ as polarised and incompatible identities (Harrison & McKeon, 2008). Most accounts though relate struggles to reconcile emerging identities as teacher educators and second order practitioners with an

emerging identity as a researcher. This difficult process is not helped by a number of defined factors including: mixed institutional messages about the value of teaching and research in teacher education; uncertainty about the type of research which is valued institutionally and who 'counts' as a researcher; lack of personal experience of research and accompanying lack of confidence; personal constructions of research as daunting and time-consuming; and struggles to find ways to reconcile committed practice as a teacher educator with viable and valid modes of research engagement. These kinds of struggles and identity shifts – for both beginning and experienced teacher educators are memorably explored in self-studies by Bullock and Ritter (2011) and Lunenberg and Hamilton (2008). In Murphy et al. (2014) the identity shifts which occur for the group are defined as being from doctoral students (or novice researchers) to emerging with identities as more confident and competent teacher educator researchers. In Butler et al. (2014), a self-study which looks at identity developments through participation in a teacher education-specific seminar series, identity shifts are similarly seen as being from educator to emerging teacher-educator researcher. These kinds of changes in professional identity are inescapably inter-linked with growth and changes in knowledge (Goodson, 2002) and practices (Lave & Wenger, 1991).

Acquiring the Knowledge to Teach Teachers

Knowledge acquisition for beginning teacher educators and the development of pedagogies for teaching teachers (Berry, 2007; Loughran, 2006) are both key themes in the research literature. Importantly, knowledge of teacher education is crucial to the formation of *second order pedagogy* in teacher education (Murray, 2002); as Loughran (2008, p. 1180) states,

this 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.

Professional knowledge of teachers is complex, difficult to define and often contested, so it comes as no surprise that there is no codified and detailed knowledge base for teacher educators (Cochran-Smith, 2003); this is still true despite recent strong attempts to define some knowledge domains. Goodwin and Kosnik (2013), for example, define five knowledge domains for teacher educators: personal, contextual, pedagogical, sociological and social. The Dutch teacher educators' association, VELON, identifies four core domains of knowledge – the profession of teacher educator, education didactics, learning and learners and teaching and coaching – then two specialisation domains and four 'widening' domains (VELON, 2012). Drawing on these studies, the definition of knowledge adopted in this chapter is a broad one; it is embedded in practice and encompasses skills and values, as well as more conventional epistemological focuses on conceptual, experiential, social and research-based knowledge.

Given the distinctiveness, complexity and importance of teacher educator knowledge and its centrality in pedagogical development, it is not surprising to find concerns and insecurities about the adequacy of existing levels of professional knowledge in the research on beginning teacher educators (see, *inter alia*, Dinkelman, et al., 2012; Kitchen, 2005; Kosnik & Beck, 2008; Ritter, 2007). Wiebke and Park Rogers (2014)'s self-study exemplifies some of these concerns in detail; it describes a beginning science teacher educator, who is also a doctoral student, learning to teach student teachers how to plan a coherent series of science lessons. This account exemplifies many of the tensions around knowledge generation, particularly the enhancement and generalisation of existing knowledge of schooling, and describing the enactment of that knowledge in pedagogical practice. Here,

'a science teacher educators' PCK (*pedagogical content knowledge*) includes his/her knowledge about curriculum, instruction and assessment for teaching science methods courses and supervise field experiences, as well as his/her knowledge about pre-service teachers and orientations to teaching science. (p. 223)

As Wiebke and Park Roger's account identifies, however, this kind of attempt to list elements of teacher educator knowledge can reflect only what Goodwin and Kosnik (2013, p. 340) say is "simply surface knowledge" for a number of reasons. First, knowledge here is only exemplified in and through pedagogy, notably in the tensions between 'telling and (facilitating) growth' (Berry, 2007) and the modelling of practice for students (Loughran, 2006; Wiebke & Park Rogers, 2014, p. 223). Letting go of teacher expert and teacher-as teller-roles and going beyond "the toolbox of instructional strategies" are also areas of knowledge growth noted in other studies (see, for example, Butler et al., 2014, p. 226). Second, teacher educator knowledge is filtered through personal value systems and attitudes to teaching and teacher education, which change as beginning teacher educators work in teacher education, alongside their peers to forge new practices and new experiential knowledge and skills. The acts of teaching as a teacher educator then may be seen as knowledge-in-action; pedagogy here is more powerful than decontextualised attempts to define knowledge. The real value of detailed accounts such as Wiebke and Park Roger's then is in showing how personal knowledge and pedagogy change and grow in response to multi-layered contextual factors during the early stages of teacher education work.

In another example of how changing teacher educator knowledge contributes to increases in confidence as a second order practitioner (Murray, 2002), McKeon and Harrison's (2010) study traces the development of five teacher educators' pedagogical reasoning over a period of 3 years. The authors trace shifts from "teacher educator-directed learning" in the initial stages of teacher education work to more "student-teacher-led learning" modes in later years as the beginning teacher educators achieve greater clarity about their pedagogies, deeper perceptions of learning processes and a stronger conceptualisation of their roles as agents of change (p. 34). The teacher educators develop understanding of the "learning to teach" process and reflect on personal practice through developing insights of how and why their students learn (p. 35). Levels of confidence in personal knowledge of research and

theory varied between educators at the start of the study, but over the years of the study all started to use research to underpin their own and their students' learning. Their trajectories over time indicate sustained professional learning, developing pedagogical expertise and range, and increased levels of critique, with the last factor marked by what Butler et al. define (2014, p. 267) as moves "from uncritical self to critical self awareness". For these beginning teacher educators in McKeon and Harrison's (2010) study, pedagogy and pedagogical knowledge are explicitly or implicitly 'reconstructed' through "a complex interweaving involving identity, teaching strategies, subject knowledge, scholarly activity and affective aspects" (p. 27). Knowledge of modelling strategies and how to deploy them during teaching are further themes in the research.

In many of the studies of and by beginning teacher educators, becoming a confident teacher of teachers, able to draw on a range of appropriate pedagogical knowledge and skills, was a key indicator of achieving a new professional identity. Becoming a confident and active researcher in ways which accord with that new practitioner/teacher educator identity is a further indicator of growth and confidence as a teacher educator. Murray and Male (2005) identified in 2005 that on entry into their HEIs, new teacher educators were positioned as the *expert become novice* in terms of developing new pedagogies for second order work, but as the *novice assumed to be expert* in terms of their research activities. Ten years on from this study, these themes of reversal remain dominant in many accounts of beginning teacher educators in HE; it is unsurprising then to find that the main learning areas during induction are developing a personal pedagogy for teaching teachers and becoming research active. The implications of this finding are discussed in more detail in section.

Induction Support for Beginning Teacher Educators

The European Commission (2013) report, in recognising the centrality of teacher educators in education, recommended that each EU member state should create a coherent and comprehensive policy to support and develop teacher educators at all points of their careers. The document recognised the importance of lifelong professional learning opportunities, but placed particular emphasis on induction for beginning teacher educators. This emphasis has also been found in many other policy contexts, underlining the importance of high quality support during the transition time from previous careers (whether those were in academia – as student or faculty member or other types of teaching or consultancy/advisory work or the private sector) into teacher education work (Eraut, 2004).

The literature on induction provision predominantly focuses on teacher educators entering HE to begin their new careers; this literature review therefore reflects that balance. There is no codified knowledge base for beginning teacher educators and no set curricula for their induction. Many accounts indicate that induction is "often haphazard depending on the good will, time and effort of experienced col-

leagues” (Van Velzen et al., 2010, p. 24). But there are, of course, many institutional or ‘official’ requirements for passing a probation period or gaining tenure here which may impact on induction provision. And it is a rare institution – whether a school or an HEI – which does not now require its new faculty to attend a variety of programmes to ensure familiarity with its mission statements and all its workplace regulations. Beginning teacher educators in HE may also be required to study for formal qualifications; for many in Canadian, American and Australian universities, as the analysis above shows, this will involve registration for a doctorate. But other qualifications may also be required: in the UK, for example, many universities ask new academics, across all disciplines, to complete a Post Graduate Certificate in Higher Education teaching as part of their induction.

The MOFET Institute in Israel offers nationally relevant, formal induction courses for beginning teacher educators, based around the national standards for the occupational groups. Other professional associations for teacher educators such as VELON in the Netherlands, VELOV in Flanders or ATE in the USA also have professional standards and procedures for demonstrating and validating achievement of these by those entering the profession (see, inter alia, ATE, 2011; VELON, 2011). Studying for formal qualifications, attending available professional development courses relevant to the job and working towards achieving any professional standards set by national bodies form very important contributions to the learning of beginning teacher educators. Self-study or engagement in practitioner research of other kinds also creates very important contributions for the learning of beginning teacher educators. In the sub-sections below some of these approaches to induction are exemplified by reference to practice in Canada, the USA and Norway; these give more detailed accounts of activities and the ways in which they are designed to meet the differentiated professional learning needs of beginning teacher educators. The final sub-section draws on these examples and details a set of induction guidelines in order to identify broad principles governing effective ways of supporting new educators.

Induction for Teacher Educators Coming into Higher Education from Doctoral Programmes: A Community-Based Canadian Programme

Kosnik et al. (2012) state that teacher education in Canada is organized provincially with 55 universities providing teacher education courses at either under-graduate (45 % of students) or post-graduate levels (55 %). All teacher education is university-based, with no alternative routes into teaching as in the USA and England. Teacher educators’ prior experiences vary according to university recruitment criteria, with some institutions requiring school teaching experience, whilst others place greater value on research experience and possession of a doctorate. Many universities employ a number of teacher educators who have newly completed doctorates.

Drawing on the available research on beginning teacher educators in Canada (see, *inter alia*, Kosnik & Beck 2003, 2008), Kosnik, et al. (2012, p. 352) state that most have “little preparation before, and minimal support after, assuming their academic position”. They rely instead on whatever informal support they can find from colleagues, which often means uneven or inadequate support. Because of this situation, Clare Kosnik and 12 colleagues – both beginning and experienced teacher educators – set up a programme at OISE, the University of Toronto, which aimed to help doctoral students prepare for their future work in teacher education.

This group – the Becoming Teacher Educators (BTE) – functioned as a learning community specifically designed for doctoral students which worked together for 3 years, undertaking a self-study of their learning and analysing and reporting this through various channels, including Kosnik et al. (2012). As this co-written article describes, the key elements of the BTE group included: its strengths as a community; the importance of shared leadership; the opportunity to develop knowledge of teacher education; the improvement of research skills; the influence on identities; and improvement in practices as beginning teacher educators (pp. 357–360).

Provision within the programme was of a “rich, complex, and interconnected nature” (p. 357), with much of the learning drawn from the participants’ work (their research as doctoral students and increasingly, over the length of the programme, their personal and communal practices in teaching on teacher education courses). Specific activities within the programme included: discussing scholarly articles; observing and interviewing teacher educators; analysing personal pedagogies; reviewing curriculum methods and foundation course outlines; and identifying and analysing the instantiation and positioning of teacher education in different types of universities (teaching-focused or research-intensive); generating their own research and participating in research presentations; and undertaking peer review of providing feedback on research outputs.

As Kosnik et al. describe, the types of “knowledge-building activities” undertaken in the group changed over the 3 years, with beginning teacher educators drawing more on their own expanding experiences within the field as their confidence and knowledge developed. Participants increased their skills as teacher education researchers and, following Jenkins (2008, cited in Kosnik et al., 2012, p. 357), the authors report that processes of identity change were “negotiated on multiple levels and from multiple viewpoints at the same time”.

Similar, high quality provision within or alongside doctoral programmes and incorporating self-study is described in Dinkelman et al. (2012), also in Canada, and Butler et al. (2014) in the USA in studies of beginning teacher educator induction. In the latter study, for example, on-going seminars over a period of 6 weeks were designed to explore teacher education and to encourage student-teacher educators to engage in collaborative self-study groups through modes of engagement including reflective assignments, discussions of reading and self-study research projects. The participants in the seminar series – who are also co-authors of the paper – clearly gained considerable benefits from participation in the programme not least because they moved from “uncritical self to critical self-awareness” (p. 267) but interest-

ingly, they also left with “more tensions, doubts and questions about the work of teacher educators” (p. 272) than they had had before it. Given the challenging nature of work in teacher education and the appropriate emphasis on criticality, this is perhaps a fitting outcome for such an induction programme.

In these studies, as in Kosnik et al.’s work, there is no study for a formal qualification *specific* to practising as a teacher educator; rather individual study for doctorates – already on-going for many before the groups formed – becomes a resource from which learning opportunities or affordances (Billett, 2001) can be initiated. Similarly, analysis of the experiences of second order teaching offer learning affordances which become a further part of the informal and integrated workplace learning ‘curriculum’ which the beginning teacher educators – and often their more experienced ‘mentors’ – co-create. Most of the provision here then may be defined as situated learning, drawing from the daily work of the participants and with very high degrees of relevance to it. Formal learning opportunities, set up at first by the experienced teacher educators in the group, but increasingly negotiated within the group and then led by the beginning teacher educators, create focuses for further activities. Induction for these newcomers then takes place essentially within a *community of practice* model (Wenger, 2000) as beginners develop into co-investigators with full collegial status as fellow teacher educators.

In all the three doctoral self-study groups referenced above, there is at least one experienced teacher educator who structures or leads the programme, at least in its early stages, until the confidence of beginning teacher educators grows to enable them to become co-leaders and co-researchers. Murphy et al.’s (2014) study differs in that it taps into a powerful tradition of teachers and teacher educators as autodidacts, describing three doctoral students organising and researching induction through a writing group which they set up for themselves. In this group mutual support mechanisms, particularly critical friendships and peer mentoring, enable the reciprocal development of teacher educator identities and research and writing skills.

All the above examples of self-study groups describe beginning teacher educators on doctoral routes in which they are part of a cohort of doctoral learners, a structure which has potential to offer them collegial support. Communal identity and opportunities for collegial learning, alongside dual positioning as both doctoral learners and beginning teacher educators, seems to give additional strength to these and similar groups.

Induction for Diverse Beginning Teacher Educators in Norway: Institutional and National Provision

Smith (2011) describes differentiated induction provision for beginning teacher educators in the fast changing context of teacher education in Norway. Here pre-service teacher education is being ‘reformed’ and strengthened so that eventually all

provision for both primary and secondary schooling will consist of 5 year courses at Master's level which will bring the country further into line with the European Credit Framework, as agreed in the pan-European Bologna Accord of 2009. These changes will bring multiple challenges for teacher educators and their work in Norwegian universities and colleges, which Smith describes as already 'multifaceted and complex'. At present teacher educators can be recruited with or without doctorates or experience of teaching in either schools or higher education. Smith comments that a likely consequence of the policy changes leading to teacher education at master's level is that all teacher educators entering HE will be required to hold a PhD degree in the future.

The paper gives pen portraits of two beginning teacher educators: John has more than 15 years experience as a school teacher; he has a first degree in Norwegian and a Master's degree in education, but no PhD. He was 'headhunted' for his job by the School of Education in which he now works. Karen has recently completed a PhD in educational psychology but has no teaching experience in schools. She already has publications in highly ranked journals and a reputation as an excellent researcher; both of these things bring valued research strength to her School of Education. Both new teacher educators teach on general education or pedagogy courses, as they are called in Norway, and are in charge of students' practicum experiences over a total of 14 weeks. Both are required to act as role models for their students, sometimes using either implicit or explicit modelling processes (Lunenberg et al., 2014). As Smith describes them, John's strengths as a beginning teacher educator lie in his experiential knowledge of teaching and the credibility that brings with students. But his challenges – and therefore the focuses for his induction – are that he needs to update his theoretical knowledge of education, develop second order pedagogical practices and find ways to 'share' his pedagogical and didactical knowledge of teaching – much of which is tacit – with his students. Karen's strengths are that she can "provide theoretical models, guide the students in their search for relevant readings and support them in their research assignments" (p. 342); her challenges are that she lacks experience of teaching in schools and HE, including the ability of skilled educators to do what is described as "build a bridge between theory and practice" for students to draw upon (p. 341).

In the case of these two beginning teacher educators, both join School of Education development programmes with a clear focus on the pedagogy of teacher education (Loughran, 2006) through joint planning and evaluation of courses, participation in self-studies and mentoring. Induction provision is also customised to meet individual needs. Here this includes Karen spending time in school during her first year as a teacher educator and working with an experienced colleague during her students' practicum, and John being 'adopted' by a research group and invited to join a research project as a co-researcher on a learning-by-doing model.

John may also be encouraged to start his PhD. If he does this then he may be able to take advantage of a Norwegian initiative known as the Norwegian Research School in Teacher Education (NAFOL), a national network of 24 collaborating universities and colleges which provides doctoral level training for researchers in teacher education and aims "to strengthen the quality of all types of teacher educa-

tion through a targeted, robust and long-term commitment to organized research in a national network of collaborating institutions” (NAFOL website, 2015). It achieves this through providing all teacher educators with support to get a doctorate and to empower their research competence (Smith and Ulvik, 2015). Established only in 2011, it already has 93 PhD candidates researching and working in teacher education. This provision is offered to all teacher educators, including those, like John, entering teacher education without PhDs and wishing to research in the field. For all, the cross-institutional, collaborative doctoral programme is likely to offer outstanding research induction opportunities.

Induction for Teacher Educators Coming into Higher Education from the School Sector: Guidelines for Practice in England

Structural and epistemological reforms to the field of teacher education in England over the last 30 years have seen shifts in the locus, control and epistemologies of student learning from academy to school (Furlong, 2013; Furlong, et al., 2000). The field has also seen a “turn to the practical” (Furlong & Lawn, 2011, p. 6) within Schools of Education. Many HE-based teacher educators, particularly those working on pre-service courses, *must* have experience of working in schools; as Ellis et al. (2012) identify this is a key recruitment criterion. Many educators are recruited without doctorates or other sustained experience of active research engagement. Very few have doctorates or sustained experience of engagement in research on entry into teacher education; registering for a doctorate is not a requirement in all universities, neither is being ‘research active’ in conventional senses.

A nation-wide survey (Murray, 2008) of induction for this group of teacher educators showed that formal provision was uneven, and at times inadequate, in supporting individual learning. The existing research on beginning teacher educators in the UK at that time (see, inter alia, Boyd & Harris, 2010; McKeon & Harrison, 2010; Murray, 2005; Murray & Male, 2005) indicated that many had three priorities in their first year: ‘survival’ in terms of understanding the basics of how the department and the institution work; ‘shifting the lens’ of existing expertise in teaching by coming to terms with the differing pedagogical demands of working with adults; and ‘laying the foundations’ for scholarship and research activity as an academic by building on their existing expert knowledge.

Drawing on this research, a set of guidelines on induction for teacher educators entering HE from schools was written for the Higher Education Academy (Boyd, Harris, & Murray, 2011). These guidelines advise striking a balance between provision of induction support at the different levels of formal, institutional provision, School of Education specific induction programmes, teaching and research team activities which provide workplace learning and mentoring and coaching by colleagues, either on a one-to-one basis or on a distributive model. Although originally designed for a UK national context, the work has now been disseminated to all EU

member states and has proved its more general applicability by influencing induction practice in countries as diverse as the Netherlands, Norway, Portugal, Australia, Israel and Canada.

The guidelines adopt the stance that, whilst the first year in teacher education is a time of rapid learning and acquisition of new forms of knowledge and understanding, very significant professional growth, requiring additional support, continues into the second and third years of teacher education work. Good induction programmes are therefore seen as being of 3 years' duration. The starting points for the design of each individualised induction programme are an analysis of the aspirations and experiences which the beginning teacher educator brings into teacher education against the requirements of the roles which she or he is asked to undertake.

Although acknowledging the importance of any formal study and set learning structures, the guidelines see the most influential professional learning for teacher educators as taking place informally in the workplace and occurring through the daily practices of teaching, researching and undertaking academic service. Key to this workplace learning are the multiple interactions which new educators will have with their academic colleagues and their students and the new educators' sense of personal agency in developing learning opportunities.

Specific areas for support include the development of pedagogical knowledge and skills for teacher education, strategies for coping with new institutional cultures and expectations (organisational learning) and the development of scholarship and research activity. The guidelines discuss the specific second order pedagogy of teacher education in some depth, analysing issues such as the skills and knowledge required for teaching adult learners, modelling skills as a teacher educator, the relative degrees of curriculum and pedagogical autonomy in HE and the "pedagogy of guidance" (Guile & Lucas, 1999, p. 212) which many teacher educators in England are expected to undertake in working with teachers in their partnership schools. Engagement in research is an area which presents particular challenges for teacher educators as many of these beginning teacher educators not only face the issues around lack of sustained research experience, identified above, but they also encounter the research cultures of Schools of Education where what counts as valid research has been re-defined and made more exclusive by successive national research audits (Gilroy & McNamara, 2009; Pollard, 2014).

Beginning Teacher Educators Learning in Their Workplaces

The research on beginning teacher educators, their professional learning and existing induction provision then all indicates that there is a definite need for well crafted, appropriate and often individualised programmes which recognise the importance of these educators, the previous experiences they bring to their roles and their future work (Goodwin & Kosnik, 2013). There is also consensus, that alongside any formal learning requirements, induction should also be structured around informal learning opportunities in the workplace. These include the daily practices

of teaching, researching and undertaking academic service in teacher education and the multiple interactions which new educators will have with colleagues and students (Murray, 2008). This situated learning draws from the daily work of the participants and has very high degrees of relevance to it.

But achieving high quality workplace learning is challenging; such learning is complex and multi-layered, requiring some form and structure but also accommodating the unforeseen and the serendipitous. Specific learning outcomes may be planned, but others may also occur which are quite unforeseen and unintended in their forms and in their powerful short- and long-term effects. Learning at and through work is, inevitably, influenced by the structural and socio-cultural factors inherent in the workplace and in the broader professional, socio-economic and cultural contexts in which it occurs. There are also complex and differing ways in which personal dispositions and senses of agency affect how individual professionals interact within the workplace, participate in different learning territories and take advantage of the opportunities offered (Hodkinson & Hodkinson, 2004). In this sense, what is learned by any professional in his/her workplace might be seen as an individual product, achieved through an individualised learning process whilst working towards individual and differentiated outcomes and differing levels of 'impact' on personal practice. Productive workplace learning might then be positioned as, at root, highly individualised and specific. Yet for an occupational group with the communal, social responsibilities of teacher educators, it is also important that induction for newcomers emphasises some common professional values and principles.

Analysis of the literature on induction for beginning teacher educators makes it clear that – even across national boundaries and differing teacher education systems – there is considerable consensus around the key principles which should inform the design and implementation of high quality workplace learning. In their guidelines on induction Boyd et al. (2011) draw on the work of Fuller and Unwin (2004) to show how 'expansive learning environments' in the workplace might be created for beginning teacher educators. The key principles they identify include: (1) a communal learning culture within the workplace in which beginners' achievements and learning are valued; (2) a culture in which symbiotic relationships and balances between multiple discourses about teaching, research and learning, practice and evidence can be facilitated; (3) opportunities participation in a well-planned, rich and flexible variety of activities which are appropriately challenging and balance organisational and individual needs, both during and away from the 'day job'; (4) the availability of time and space for those quality learning opportunities and experiences to occur; (5) further time to reflect upon learning, knowing that professional and personal critique is welcomed within the workplace culture; and, (6) supportive colleagues who are willing to undertake roles as designers, facilitators, coaches and mentors of the workplace learning.

But the creation of induction programmes is not just a one-way process of more experienced teacher educators creating provision for newcomers. Taking into account beginning teacher educators' identities and existing expertise and encouraging their voices and senses of agency will enable them to contribute to and shape

actively the workplaces in which they find themselves and the workplace practices in which they participate. Crucially, if organisational needs, particularly those which are dictated by narrow and instrumental outcomes and targets, are not to be allowed to dominate beginning teacher educators' learning and agendas, then some may need support from colleagues in developing integrated ways of conceptualising and articulating their workplace learning. They may also need guidance in developing the individual agency which will allow them to articulate their specific learning needs, to seek access to relevant knowledge bases and support systems and to critique established ideas around teaching and teacher education.

Conclusion

This review shows that the available empirical studies of beginning teacher educators are conducted using qualitative methodology and undertaken by those who are either beginning teacher educators themselves or more experienced educator-researchers with strong interests in the field. Consequently, most of the studies are small-scale and practice-based. These characteristics are not in themselves problematic, of course, but the findings of the studies reviewed in this chapter need to be read with consideration of those methodological issues, particularly in terms of issues around their scale, uses of self-report data collection methods and researcher positionality. A further issue is that there are very few longitudinal studies, even though some of the research indicates that the transition into teacher education work in HE contexts, can be challenging, multi-faceted and complex, and may be a process of up to 3 years in duration (Murray & Male, 2005).

Across all of the empirical studies reviewed here a number of clear, substantive themes emerge. First, whilst the main qualification for becoming a teacher educator in many countries is possession of prior school teaching experience, the literature shows unequivocally that teaching in teacher education is not a simple and straightforward activity of merely 'transferring' that school teaching experience to the new context. This research shows then that school teaching experience and knowledge does not automatically equate with expertise as a teacher educator (Zeichner, 2005). This is very important in terms of claiming and marking out the distinctiveness of teacher educators as an occupational group. Second, many beginning teacher educators go through inter-related processes of identity changes and knowledge growth as they acquire the pedagogical skills and knowledge, which are characteristic of and unique to teacher education or second order pedagogy. The studies use a variety of transformative terms for these inter-related processes of change and growth; these terms include 'reforming', 're-defining', 're-constructing', 'restructuring' and even 're-packaging' but all transformations of some sort. Many beginning teacher educators then find themselves effectively positioned as *the expert become novice* (Murray, 2005), in that they need to acquire new knowledge and understanding of teaching in teacher education, even though they had extensive experience of school teaching.

Third, many teacher educators go through learning processes in coming to terms with requirements for active engagement in research and scholarship in HEIs. For many, there are tensions around understanding the mixed messages which HEIs give out about research and teaching, and ‘balancing’ research requirements with changing practitioner identities as a new teacher educator. Some teacher educators, particularly those in research-intensive universities where most academics in other disciplines are already presumed to be strong researchers on entry to HE, may therefore find themselves positioned as research novice presumed to be expert (Murray, 2005). Fourth, studies of teacher educators’ induction learning needs emphasise the importance of developing personal pedagogical skills and knowledge for teaching teachers and becoming research active. Finally, a review of the literature on induction provision of various types shows the importance of the provision of high quality workplace learning programmes, organised around the principles of expansive learning environments (Fuller & Unwin, 2004). Taking into account beginning teacher educators’ identities and existing expertise, encouraging their voices and senses of agency is also important. Self-study or other forms of practitioner research, drawing on these principles, provide both powerful pedagogical learning opportunities and a means of beginning to research and publish (although this latter benefit may depend on what is recognised as valid research engagement for teacher educators within the context of the specific HEI and national specifications for research productivity).

Being a novice and acquiring experience and expertise are recurring themes in the literature and it is undoubtedly important to consider learning opportunities and trajectories for beginning teacher educators’ induction. Here we need to remember Berliner’s (2001, p. 480) advice that, “whilst inexperience may well be equated with novices, the acquisition of experience does not automatically denote expertise”. Developing criticality around personal and communal practice is therefore a further priority during induction to lay the foundations for further professional learning as lifelong learners. Ultimately, regardless of the contexts in which they teach, we need all our beginning teacher educators – in their key roles in (re)producing the teachers of the future – to be autonomous, to have “a broad mandate, an expansive worldview, a collaborative approach and the skills to enact a rich curriculum” (Goodwin & Kosnik, 2013, p. 343) and to become confident “architects of change, not just passive implementers” of policy (ibid, p. 341).

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Chapter 17

Reflective Practice

Carol Rodgers and Vicki Kubler LaBoskey

Part 1: Introduction

The reflective practice of teacher educators is a matter of integrity. We take an inquiry orientation to practice because that is what we want our students to do when they become teachers. Since modeling is such a powerful form of instruction, it is imperative that we “practice what we preach.” But why do we want our prospective teachers to engage in reflective practice? First, it is because that is, “how professionals think in action” (Schön, 1983); it is the only way in which we can deal with the complex, unique, and on-going dilemmas that constitute our work – and this is true across disciplines, e.g., for physicians (Ryan, 2010); for lawyers (Anzalone, 2010); for social workers (Murphy, Dempsey, & Halton, 2010). As Groopman (2007) has articulated, doctors can sometimes misdiagnose their patients with potentially catastrophic results when they lack self-awareness and fail to ask themselves such questions as, “What else could it be?” Thus, as professionals, teachers and teacher educators, like doctors, must engage in the continual investigation that is reflective practice.

Second, we want our student teachers to learn the skills and dispositions of reflective inquiry so that they in turn can teach such ways of thinking to their students. Since it is through inquiry that meaningful learning happens (Dewey, 1933), teachers must be able to teach in ways that will engage their learners in creative exploration and critical analysis. It needs to be incorporated into both the curriculum and the pedagogy of K-12 education; it is an answer to questions both about what to teach and how to teach it. But reflection is not just a means for learning in

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school; it is also a way of thinking that all members of a society must call upon in their interactions and deliberations in order to avoid the biases of intuitive judgment (Kahneman, 2011; Nisbett & Ross, 1980; Tversky & Kahneman, 1974). The ability and inclination to “stop and think” (Dewey, 1938), to reconsider ideas and impulses is essential to everyday living. The dangers of its absence have been powerfully apparent in recent police actions, voter susceptibility to inflammatory propaganda, and recruitment into extremist organizations and actions around the world.

A third reason, therefore, is visionary; reflection is inextricably tied to the overall purposes of education in a democracy, which in Kincheloe’s view is essential: “Educational reformers can discuss collaborative school cultures and reflective practices all they want, but such concepts mean very little outside a rigorous, informed vision of the purpose of education” (2008, p. 6). Education for freedom requires the ability to detect oppressive systems and then to challenge and change them for the better. Thus, imaginations must be nurtured, a sense of agency activated, and the ability to interrogate and consider both multiple perspectives and justice itself developed.

Reflection is more than a technique; it is an orientation – with a long history. Our contention, therefore, is that reflection, well understood, is not an option or a passing fad. Arguments that characterize it as oppositional to action, as a choice that overemphasizes theory, represent either a misunderstanding of the term, a rejection of the democratic values and aims inherent in the construct, or both. Because of that we feel it important to first clarify the foundational definitions of reflection – those articulated by Dewey, Freire, Schön, Greene, and Cochran-Smith and Lytle. We selected these six for three main reasons: they are widely referenced in the literature on reflective teaching and teacher education; all of these scholars were very directly concerned with articulating the meaning and purpose of reflection in education; and we know of no meaningful engagement with this notion that is not based in or consistent with the ideas of one or more of these figures (we have a few additional reasons for including Cochran-Smith and Lytle that we elaborate upon in that section). We will then proceed to delineate some of the most robust and influential current conceptualizations and models of reflective practice for teacher educators. Since our argument is that teacher education and reflective practice are really one and the same, we address the implications of the foundational definitions and current models for teacher education as we go, rather than in a more typical separate section in the end.

The purpose of this chapter, therefore, can be summarized as follows: Many teacher educators, including the authors, have argued that the essence of their role is encapsulated in the notion of reflective practice. In this chapter we will thus attempt to articulate the meaning of reflective practice and in so doing explain why it defines for us the nature of teaching about teaching.

Part 2: Foundational Definitions

John Dewey: Background

While the notion of reflection precedes John Dewey by millennia, when it comes to reflection in teacher education, Dewey is the taproot. While Dewey was a philosopher first, it can be argued that his most profound contributions were to education. Historian Lawrence Cremin (1961) called him the “father of progressive education.”

The Role of Reflection in Education

Experience was central to Dewey’s view of learning, a commitment often summed up as “learning by doing” or “experiential learning.” But these fall short of what Dewey meant. He argued against a stance that saw the purpose of education to be the acquisition of facts about the world (Noddings, 2012, p. 25), and advocated a much more complex understanding of knowledge. The purpose of education, he argued, was growth, and growth comes from reflection on experience, which fundamentally changes the person.

Experience was comprised of two elements: interaction and continuity. Interaction between the learner and the world was imperative – it changed both the learner and the external world. Learning resulted from the act of making sense of experience (reflection). Thus schooling needed to be based in experience and learners needed to be given experiences that would engender and give direction to their growth (Dewey, 1938). Learning and school were not “preparation” for a life some time in the future. They *were* life:

We always live at the time we live and not at some other time, and only by extracting at each present time the full meaning of each present experience are we prepared for doing the same thing in the future. This is the only preparation which in the long run amounts to anything. (p. 49)

Continuity described the connectedness between experiences, where understanding from one experience prepared one to understand the next experience in fuller and more complex ways. Thus growth was a spiraling process of deepening and broadening one’s understanding of oneself, others, and the world and gave one increasing control over the direction of one’s life (Dewey, 1938, p. 79).

The task of the teacher was twofold: (1) to provide “educative” experiences for learners; and, (2) to observe and respond to the subsequent student-world interactions in ways that extend that learning and the learner himself. Further, she needed to bear in mind that the learner comes in with capacities for learning and stores of knowledge that need to be taken into account by linking new experiences to these existing capacities and knowledge. In addition, these experiences needed to open the possibilities of further educative experiences. Thus learning, like the learner herself, is continuous. “Educative” experiences were those that led to essentially

moral outcomes. Dewey's notion of the moral is grounded in his commitment to living in a democracy, where the good of the many is considered and where common values and knowledge are broadly communicated, inquired into, and constructed (Noddings, 2012, p. 36).

The Process of Reflection

The process of reflection can be broken down further. Once there is an experience on which to reflect, Dewey posits that a "suggestion" immediately presents itself. That is, what one experiences and observes suggests a particular meaning. It is, in many ways, akin to a first impression, and not necessarily to be trusted. So one of the first "habits of mind" of reflection is the discipline to recognize it *as* a first impression and to hold it at bay, in other words, not to jump to conclusions. As Rodgers (2002a, 2006) has pointed out, these initial meanings arise from two sources: (1) the scope of what one has taken in, that is, the breadth and depth of what one perceived in the experience; and, (2) one's prior experiences, which allow for a greater or lesser range of interpretation. To train the discipline of seeing, then, Dewey requires that the thinker (student, teacher, or teacher educator) know herself.

The third phase of reflection in Dewey's view is "naming" the problem, or beginning to articulate the questions embedded in the experience. If there are no questions, then there is no energy for the inquiry (i.e., reflection). So getting at what one wants to know is helpful. As Dewey (1933) wrote, "A question well-put is half answered" (p. 208). Naming the question is also the first step in "intellectualizing" the experience and involves identifying its elements. But the question is not always apparent. Ball and Forzani (2007), Rodgers (2002b), and others have found Hawkins' (2002) "I, Thou, and It" framework (teacher, learner, subject matter, respectively), with the added element of "contexts," to be useful in framing the elements of classroom experience by helping the person reflecting to consider the various elements at play in an experience. Not only must these separate nodes be considered, but more importantly, their interactions (Ball & Forzani, 2007; Rodgers, 2015). As these elements are described, their very combined weight begins to suggest further meanings that, Dewey says, become tentative hypotheses. This leads to the next step in the process.

Once a clear picture of the experience and its elements has been generated, these hypotheses are then examined further and ramified, drawing on the meanings made by others. These others can be colleagues, students, mentors, and/or readings that would add or complicate the meanings one has already begun to form. Finally, a particular meaning must be settled upon. Why? Because as Dewey points out, reflection does not stop with thought, it must be carried through into action. Without action, the act of reflection is incomplete, even if the action taken is a decision not to act. This action, which is now a considered response rather than a less thoughtful reaction, Dewey called "intelligent action" (Rodgers, 2002).

Finally, action taken becomes the new experience with which a new cycle of reflection begins. This cycle of reflection, sandwiched by experience, with recursive layers of observation, description, analysis and interpretation in between, forms the basis not only for reflective practice on the part of teachers and teacher educators, but reflective learning on the part of students, and most importantly for Dewey, an inquiring, reflective, moral citizenry.

Implications for Reflection in Teacher Education

The purpose, then, of teacher education is to develop in teachers the capacity to perceive what the learner knows (what today might be called “funds of knowledge”¹ [Moll et al., 1992]), an awareness of the capacities that they bring. As Dewey wrote in *How We Think* (1933), “the problem of the pupils is found in the *subject matter*; the problem of teachers is *what the mind of the pupil is doing with the subject matter*” (emphasis in original, p. 275). Likewise then, the problem of the teacher educator is what the mind of the teacher is doing in response to students and their learning. The mind of the teacher is focused not on where students are *not*, but on where they *are*. The teacher’s job is to discern what the learner – each learner – needs and give him just enough to allow him to move *under his own power* to the next step in his learning. The same dictum applies to the teacher educator. For the teacher, this discernment requires a solid grounding in subject matter knowledge. Knowing the subject matter frees the mind of the teacher from distraction – from worrying about where to go next, from wishing the student were where she wants him to be instead of where he is. Thus a second purpose is to increase awareness of the intersection between the subject matter and the students’ learning. It also, Dewey noted, calls upon attitudes of curiosity, open-mindedness, whole-heartedness, and responsibility. These are necessary for both teaching and learning. As Dewey (1933) claimed, teaching *is* learning; the teacher is a student of the learner. And the teacher educator is a student of the teacher-learner. If the teacher’s job is to create situations (experiences) that put students in direct contact with subject matter, the teacher educator’s job is to put teacher-learners in situations that give them direct experiences with teaching and learning. Further, it is their job to lead their learners to reflect on these experiences, drawing from the vast repository of educational theory, which, applied to experience, becomes so much more than “just theory.”

The ultimate purpose of education for Dewey is the ongoing creation of a vibrant and responsible democracy. Life in the classroom needs to reflect and connect to life outside the classroom. Otherwise school just becomes preparation for more school rather than for life. The “associated living” of the classroom must mirror that

¹ *Funds of knowledge* are defined by researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez (1992) as, “the historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (p. 133).

of society. The reason that a democracy needs an educated populace, argues Dewey (1916), is that:

a democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience ... Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social change without introducing disorder. (p. 93)

Thus, the purpose of reflection, for Dewey, was to make sense of experience toward the end of (a) individual growth, and thus, (b) the growth and health of a democratic society. The definition of reflection that emerges from Dewey's work (1916) aligns with his definition of education: "that reconstruction and reorganization of experience that adds meaning to experience and increases ability to direct the course of subsequent experience" (p. 82). It is a disciplined and rigorous practice that is distinct from "pondering" or "mulling." The key here, as outlined above, is the centrality of experience. Reflection begins with an experience, either in-the-moment or recollected, calling for either reflection-*in*-action which demands an immediate response, or reflection-*on*-action (Schön, 1983), which leaves space for a future response. In both cases, knowledge is built and one can rely on it in the future, that is, until a new experience finds that knowledge inadequate in some way and it is further reconstructed and reorganized.

Paolo Freire: Background

Paolo Freire was a Brazilian educator, philosopher, and internationally recognized voice of what came to be called critical pedagogy. He was best known for his book, *Pedagogy of the Oppressed*, published in 1970, but was the author of many books and essays, and spoke and taught around the world.

All of Freire's work focused on the belief that the primary purpose of education was human liberation and the opportunity to realize one's "ontological vocation," developed through a, "critical perception of the world" (2011, p. 111). The term "ontological vocation" refers to our capacity, even our deep seated need as human beings to act upon and transform the world, "and in so doing [move] toward ever new possibilities of fuller and richer life individually and collectively" (Macedo, from the forward of *Pedagogy of the Oppressed*, 2011, p. 32). The development of a critical perception of the world – an awareness of power inequalities, contextual forces, the existence of multiple views of "truth," and a view of what society might be – is the job of education.

The Role of Reflection in Education

While Freire (1970) did not employ the term "critical reflection," using simply "reflection" instead, he did speak of *conscientização*, that is, "conscientization," or critical consciousness. Since 1970 educational theorists have embraced this sense of

“critical,” as a signal for the reality of contextual forces that oppress and silence and contribute to human suffering. The purposes of critical pedagogy (which conceptualizes pedagogy broadly, as social, cultural, and political), and therefore of critical reflection, are to alleviate this suffering through education, which contributes to the humanization and empowerment of learners (Kincheloe, 2010).

Of reflection, Freire wrote that it is inextricably connected to language. “[T]he essence of dialogue itself,” he wrote, is “the word” (2011, p. 87). That is, our capacity as human beings is realized through our ability to name the elements of our world, and, in naming them, to transform that world. “To exist humanly,” writes Freire,

is to *name* the world, to change it. Once named, the world in its turn reappears to the namers as a problem and requires of them a new naming. Human beings are not built in silence, but in word, in action-reflection. (p. 88)

This act of naming, he wrote, is made of two parts: reflection and action. Combined, they comprise “praxis,” or the act of transforming the world. An “inauthentic word,” as opposed to a “true word,” is one that suffers either from too much action, rendering it little more than “action for action’s sake,” or too much reflection, rendering it nothing but “verbiage” (pp. 87–88).

Similar to Dewey’s idea of education as the, “reorganization and reconstruction of experience,” Freire considered emerging from one’s embeddedness in experience (subjectivity) to a position that allows for psychological distance and thus perspective to be an educational imperative. Naming the world is essential to the process of gaining such perspective. Once experience has been named, a learner can hold the elements of experience and the forces within them – often forces of oppression – as objects rather than be subject to them. This is the first step towards liberation.

It is the job of the educator to create opportunities for learners to perceive and then name these elements of oppression. This is done by bringing to light “limit-situations” that characterize the experiences of learners. “Limit-situations,” according to Freire, are simply those situations in the world that limit one and limit one’s “ontological vocation” of becoming more fully human. The tasks of the educator then become, first, to create a forum for dialogue with students that will reveal these situations. Dialogue, Freire (2011) stresses, is done with humility, love, and faith in his or her learners’ capacities. An attitude of humility is necessary because the teacher is learning from the learner, (we also saw this in Dewey where he sees the teacher as a learner of the student). Love opposes, “the lovelessness which lies at the heart of the oppressors’ violence” (p. 45) and, at the same time, is, “the foundation of dialogue and dialogue itself” (p. 89). It is an act of commitment to liberation not just in abstract terms, but in reality – to the actual liberation – the humanization – of each learner, which lies at the heart of critical pedagogy. As Freire writes, “If I do not love the world – if I do not love life – if I do not love people – I cannot enter into dialogue” (p. 90). The teacher’s faith is a faith in human beings’ desire for liberation even as they may be alienated and without faith themselves. It is a faith in the potential for rebirth in the very struggle for liberation (p. 91).

The second task of the teacher, after careful listening, is to create “codes” which codify the limit-situations that have come to light. These codes come in the form of drawings, photos, plays, or anything that makes concrete the limit-situations articu-

lated by learners. Dialogue then continues as aspects of the code (which represent the lived experiences of learners) are named. Through the dialogue process learners and teachers together generate themes (for example, systemic discrimination against young black men), and “beneficiaries” (those in power who benefit from the situation) and “losers” (the oppressed) are determined. When the losses that result are clearly seen, that is, named, in *word* – the motivation to make change – to act upon the *world* – grows. Taken together, the process is what Freire called *conscientização*, or conscientization, the bringing to awareness the situationality, forces of history and oppression, costs to human beings, benefits to others, and the resultant gulfs of injustice.

The task of the teacher then becomes one of providing resources that allow learners to reflect on their situation, drawing upon the thinking of others – found through reading, and hence is one link to literacy. This is what makes teaching, for Freire and other critical pedagogues, inevitably political. As Joe Kincheloe (2012) has written, “Critical pedagogy is constructed on the belief that education is inherently political” (p. 8).

All of this stands in contrast to what Freire called the “banking” model of teaching where the teacher deposits information of his choosing into the “empty” minds of his learners. Instead Freire posits a model of teaching and learning that is grounded in inquiry. As Freire (2011) writes,

For apart from inquiry, apart from the praxis, individuals cannot be truly human. Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other. (p. 72)

As a replacement for learner passivity, there is learner agency; in lieu of teacher power *over* there is power *with*. Instead of the dehumanizing act of submission to one “reality” determined by those in power, there is the humanizing, liberatory endeavor of the creation and re-creation of reality, oneself and society – that is, praxis.

Implications for Reflection in Teacher Education

Central to reflection in a Freirean-oriented teacher education programme would be clarity around the purposes of education. All reflection would need to be oriented to a liberatory true north. Thus personal transformation, inquiry, an openness to critical examination of programmes, and a shift in perspective from teaching as a set of knowledge, skills, and dispositions, to teaching as a liberatory commitment would be required. Personal transformation is central to critical pedagogy. Before teachers and teacher educators can operate from the kind of liberatory stance of praxis (“reflection + action”) that Freire advocates, they must themselves be transformed. Because his brand of pedagogy, dependent as it is on love, humility, and faith, cannot be boiled down to a list of techniques, the primary task of teacher education that seeks to educate critical teachers committed to social justice is the transformation of

teachers – and by implication, teacher educators – themselves. What are teachers' and teacher educators' limit-situations, for example, as women, as people of color, as teachers, as faculty in teacher education in a university setting? How do they benefit from the limit-situations of others, for example, as white, as male, as teachers, as teacher educators? Are they willing to engage in praxis, which includes not just learning about, but taking action for change? How willing is a teacher education faculty to open up dialogue around these issues? What are the limit-situations of externally imposed policies, and how willing are teachers – and teacher educators – to name and attempt to transform these policies?

Critical reflection would not be a skill to master but a way of working, moving, in the world. As Kincheloe (2012) writes, “Teacher education students and practicing teachers need to gain a more complex conceptual understanding of the multiple contexts in which education takes place and the plethora of forces shaping the process” (p. 111). An awareness of these forces and a commitment to constant inquiry into both them and oneself would be the hallmark of reflection within a Freirean context. Kincheloe (2012), citing Burbules and Beck (1999) writes,

Critical teachers need to question more deeply what is the nature of critical pedagogy: What does it mean to be critical in a variety of uses of the term? Such a deep critical pedagogy moves us to question ourselves, our assumptions, our notion of self, and our comfortable views of everyday life. (p. 173)

Critical reflection and teaching, and by implication, teacher education, thus are political acts. Comfort with that reality would be an essential prerequisite for teacher educators operating within a critically reflective context.

Donald Schön: Background

The ideas of both Dewey and Freire were extremely influential on the theoretical conceptualization of reflective inquiry more generally (Dewey) and critical reflection (Freire) in particular. Precisely because, according to them, reflection was the mechanism by which education was achieved, several scholars and educational practitioners embraced these ideas in their conceptualizations and enactments of teaching and teacher education (e.g., Cruikshank, Kennedy, Williams, Holton, & Fay, 1981; Habermas, 1973; Hullfish & Smith, 1961; Van Manen, 1977). But much extrapolation was involved in these efforts because, though both had addressed issues of how such aims might be achieved, neither fully elaborated upon what the education of teachers might entail in order for them to teach to these purposes. As Lyons (2010) noted in reference to Freire's work, “few accounts are provided as to how teachers are to move from critical thought to practice” (p. 18).

It wasn't until Donald Schön that reflection in teacher education really took hold as a defining characteristic – somewhat ironic perhaps since he was neither focused on education writ large, nor on the education of teachers in particular. In fact he often referred to education as one of the “minor professions.” So what might explain why Schön's work had such an impact on reflective teacher education? First of all,

his ideas about reflection were quite consistent with those of Dewey, which had already had such a widespread and long-standing impact on educational thinking. Schön's doctoral thesis for a degree in philosophy from Harvard University dealt with Dewey's theory of inquiry. His ideas were less connected with Freire's since he was little concerned with the critique or transformation of the socio-cultural context in which a particular teacher educator's work might be embedded.

Secondly, unlike Dewey or Freire, his work focused very explicitly on the understanding and articulation of professional practice. Little translation was necessary for teacher educators to incorporate his definitions of reflection into their orientations and activities. In his signature work, *The Reflective Practitioner: How Professionals Think in Action* (1983) he explained not only how and why "reflection-in-action" was the central characteristic of professional practice, he also made suggestions as to how such creative thinking might be fostered. These latter points were elaborated upon in his second influential book, *Educating the Reflective Practitioner* (1987). And what were those ideas?

The Role of Reflection in Education

Schön embarked on his original study and writing because he believed that there was a, "crisis of confidence in professional knowledge" (1983, p. 3). This was a critical issue because, "the professions have become essential to the very functioning of our society" (p. 3). He believed that a big part of the problem was a misrepresentation of the nature of that knowledge. As a result of his investigations, he came to redefine professional practice as reflective inquiry. The purpose of reflection, then, was for practitioners to engage, as effectively and responsibly as possible, in the professional work through which society's principal business is conducted to the greater benefit of all. Because Schön was focused on the work and education of professionals, he did not address the learning of students in school settings per se. When he discussed learning, he was usually referring to the way in which professionals come to be educated. It is possible to draw inferences from that about learning in general, but with caution; he was very explicit about the unique nature of professional practice. The main purpose of learning, therefore, was to master the skills, attitudes, and understandings of the expert professional, which for him was embodied in the notion of "the reflective practitioner." Initiates needed to become reflective practitioners by learning to engage in both reflection-in-action and reflection-on-action (see below for a discussion of this distinction). According to Schön, the essential dilemmas of professional practice are unique, complex, divergent, value-laden, and ever-changing. They are neither predetermined, nor formulaic. Thus, novices must learn how to set problems, as well as solve them – frame and re-frame the situation; select, invent, and explore alternative lines of action; and evaluate the outcomes.

Similarly, when Schön talked about teaching, he was most concerned with the ways in which experienced professionals would teach those choosing to enter their

profession to become reflective practitioners. The teacher educator's task, therefore, is to set up a reflective practicum, characterized by three features: "it takes place in the context of the student's attempts to design; it makes use of actions as well as words; and it depends on reciprocal reflection-in-action" (Schön, 1987, p. 101). The teacher's instruction must be responsive to a particular student teacher trying to do a particular thing. And because the student must be willing to take the risk of doing tasks he doesn't yet know how to do, the teacher educator must develop a strong supportive relationship with the student. The purpose of reflection for the teacher educator, therefore, is twofold: she engages in reflection with the student on the task at hand and she also reflects on the learning process itself. When the learning of a novice is not going well, it is up to the instructor to reflect on the interaction, figure out what's wrong, and change it.

Implications for Reflection in Teacher Education

Since Schön was focused on the education of the reflective practitioner, the purposes of teaching and teacher education are really one and the same. This is probably a key reason as to why teacher educators so embraced his notions. Teacher education is in effect a layering of reflective practica; student teachers not only work in classrooms with cooperating teachers and supervisors in the "virtual world" that Schön (1983, p. 162) encouraged, they also have the opportunity to see reflective practice modeled by their course professors. When discussing teacher education more explicitly, Schön (1988) referred to it as "coaching for reflective teaching," which is "giving kids reason" (p. 19), an idea drawn from the work of Lampert and Duckworth (Duckworth, 1987). For them to "give a child reason" meant that, "every time a child did or said something whose meaning was not immediately obvious" the teacher would challenge herself to seek to understand what sense the child was making of the situation with that response so that she could respond in an educative manner (pp. 86–87). Teachers are more likely to do so effectively and to the benefit of the child's understanding if they are able to draw from past experience as exemplars rather than as prescriptions. The aim is to help novices build repertoires rather than accumulate procedures and methods.

To Schön, reflection is the way in which professional practice, including teaching and teacher education, is conducted; they are one and the same – it isn't an option. It is how they exhibit a kind of knowing-in-practice (Lyons, 2010, p. 15). It is what professionals do to resolve their central practical dilemmas. The reflection that, "Schön focuses on takes place in the crucible of action. And it is his marked emphasis on the action setting that sets Schön's work apart" (Grimmett, 1988, p. 13). He originally referred to this as reflection-in-action, but eventually made a distinction between this and reflection-on-action. In either case, reflection and action are inextricable.

"When someone reflects-in-action, he [or she] becomes a researcher in the practice context," Schön notes (1983, p. 68), where this action is,

initiated by the perception of something troubling or promising, and it is terminated by the production of changes one finds on the whole satisfactory, or by the discovery of new features which give the situation new meaning and change the nature of the questions to be explored. (p. 151)

In between, the teacher educator would get to know the context well, including the specific learner; frame and reframe the dilemma; consider the values and norms that should be given priority; and select, invent, and enact responses.

One primary difference between reflection-on-action and reflection-in-action is time; “reflection-*on*-action, for Schön, would not occur in the ‘action-present,’ but after the fact, when action can no longer make a difference to the situation” (Court, 1988, p. 144). Another difference has to do with the social aspect. Reflection-in-action is mainly a solitary act – the thinking one does as she works. On the other hand, reflection-on-action is interactive and dialogic. In addition, reflection-on-action is usually a bit more structured than reflection-in-action. Court is one who raises questions about the distinction: Can true reflection happen in the heat of the action? If reflection on a dilemma of practice is carried out over a several month period is that really the action present? How can multiple perspectives be assured if one reflects alone? Many teacher educators simply conflate the two; the essence remains the same.

For Schön teacher education is and must be reflective teacher education because professional practice, the practice of teaching, is essentially reflection in and on action. If teachers-to-be do not learn to be reflective practitioners, they are not learning how to teach, how to deal effectively with the ill-defined, complex, value-laden, and unique problems that characterize classroom contexts. Reflection must be, therefore, both the content and the pedagogy of the programme. Student teachers learn to reflect like experts through reflective practica. What is missing from Schön’s work on reflection, which is present in Dewey’s and Freire’s, is an emphasis on the larger purposes of education, and, *ergo*, reflection. As we shall see, these purposes were essential in the thinking of Maxine Greene.

Maxine Greene: Background

Like Dewey, Maxine Greene was an educational philosopher. Her views had much in common with his; indeed, her New York Times obituary refers to her as “an intellectual descendant of the progressive thinker John Dewey” (Weber, June 4, 2014). As with him and Freire, her commitment was to education for freedom and a more robust democracy. All agreed that the self-awareness and critical questioning inherent in the reflective process needed to be an essential part of that effort. They were all concerned with how social structures could serve to distort or prevent, particularly in Freire’s context, democratic functioning, while also obscuring those circumstances from the general population so as to preserve power, something Greene referred to as “mystification” (1978b). But Greene acknowledged that, “Dewey’s apparent understanding of mystification did not affect either teacher education or

the schools” (p. 62). She went on to suggest that, “This may be because of his sustained belief that the phenomena he was describing could, in the long run, be dealt with by means of experimental intelligence” (p. 62), thus revealing one essential way in which her views on reflection differed from his. Greene believed that functional rationality held no such guarantees; it could also obfuscate and needed to be checked by passionate critical reflection.

A key variation between Greene and Freire can be captured by their differential placement in the movements of Continental philosophy, according to Nel Noddings (2012) who recognizes Maxine Greene as the, “foremost philosopher of education to draw regularly and powerfully on existentialism” (p. 66). Freire, on the other hand, is a critical theorist. It is beyond the scope of this chapter to analyze the differences between these two schools of thought in any depth; for our purposes a significant distinction is related to the *focus* of reflection. For Greene, and other existentialists, individuals plan, reflect, choose, and act in order to exercise their freedom to define themselves in relation to others; “meaning is created as we live our lives reflectively” (Noddings, 2012, p. 66). Critical theorists, though also concerned with individual transformation, tend to give more attention to the historical context in which those actors, particularly members of oppressed groups, are reflecting and acting: “From the perspective of critical theorists, philosophy must be engaged with the great struggles and social movements of its times” (Noddings, 2012, p. 72).

A fundamental relationship between Greene and Schön is best captured in her own words:

I am concerned, certainly, about competent practice and about what Schön calls ‘reflection-in-action’ as an alternative to technological rationality. But I need to say that I am concerned about something in addition to competent action, important as that is for us to define and understand. We ought to talk more readily about what the practice is *for*, about the purposes we define for ourselves at this peculiar moment in our history. (1986, p. 70)

Greene, as we will see, was much more attentive to the moral/ethical/political dimensions of the reflective process than was Schön.

The Role of Reflection in Education

Again, for Greene the fundamental purpose of the teaching-learning process is to enable students to become more autonomous – more “wide-awake” to their lives and their potentials, because such a sense of agency is required for living a moral life (1978a, p. 44) and for the successful functioning of a true democracy: “To act upon democratic values, I believe, is to be responsive to consciously incarnated principles of freedom, justice, and regard for others” (1978b, pp. 70–71). Not only will this help individuals live more satisfying lives, as citizens they will be able to recognize and dismantle any oppressive systems or distorted messages in which they might be enmeshed and thereby benefit society as a whole.

But they not only need to become more aware of their contexts, they need to learn to enact change (1978a). This requires learning to look at situations from multiple perspectives and through novel lenses; they need to be able to “imagine otherwise.” Very importantly, they have to develop the passion, perhaps even the outrage, which will move them to act and to transform on behalf of themselves and others. And the means for learning to think and act in these ways is reflection.

If all students are to be able to engage in such reflective inquiry, then their teachers must be able to do so as well, since you cannot teach what you do not know:

And this involves teachers directly, immediately – teachers as persons able to present themselves as critical thinkers willing to disclose their own principles and their own reasons as well as authentic persons living in the world, persons who are concerned – who care. (1978a, p. 48)

Helping youngsters begin to think and act in these ways requires a pedagogy, “wholly unlike ‘selling’ or drilling or training” (1986, p. 72). It involves engaging students in activities that call on them to be critical thinkers – problem generators as well as problem solvers. They need to participate in the kinds of dialogue that will include, “reflection upon their life situations *and* upon the constructs made available to schematize those situations” (1978b, pp. 59–60) often embodied in the mandated curricula. They should be encouraged to raise questions, for instance, about the textbooks they read: Who decided? Whose voices are heard and whose are missing and why? Who benefits? Are there other means for coming to know the included concepts?

Though possible in all disciplines and academic domains, Greene felt that aesthetic education was particularly conducive to such emancipatory pedagogy because it is so centrally concerned with the release and nurturing of imagination, one of her signature constructs. She believed that imagination, “may be the primary means of forming an understanding of what goes on under the heading of ‘reality’” (1991, p. 30). It is also the driving force behind transformation:

[S]hocks of awareness to which encounters with the arts give rise leave persons (*should* leave persons) less immersed in the everyday, more impelled to wonder and to question. It is not uncommon for the arts to leave us somehow ill at ease, nor for them to prod us beyond acquiescence. They may, now and then, move us into spaces where we can create visions of other ways of being and ponder what it might signify to realize them. (p. 27)

Implications for Reflection in Teacher Education

If this is what the nature and purpose of reflection is in the teaching-learning process, if teachers are to, “initiate the young into critical questioning of the moral life” (1978a, p. 48), then they must themselves be critically conscious and personally engaged. They must have broken through their own mystification. Greene notes that, “I am proposing, of course, that self-reflectiveness be encouraged, that teacher educators and their students be stimulated to think about their own thinking and to reflect upon their own reflecting” (1978b, p. 61). To be reflective practitioners, they

have to acquire a sense of agency (p. 73). They must come to believe that they can improve circumstances for themselves and their students and strengthen their will to do so.

Teacher educators thus need to help their professionals-to-be believe in the potential of all their students, as well as acquire the means for getting to know them and the particular ways in which each engages with the world, so as to be better positioned to help them all expand their visions and define their realities. They must know how to provide the young with experiences that will generate passion, involve them in authentic inquiry, and activate their imaginations.

While in their teacher education programmes, they should engage in interrogations of the political and economic systems of which they are a part, including their own educational institutions. Similarly, they must raise questions about, “the subject matters given instructional form at different levels of education. Without such critique, the disciplines are likely to be used for domination, for *fixing* the vision of young people on a reality others have defined” (1978b, p. 60). So as teachers-to-be learn to teach the various subjects to different age groups, that should include enabling their students to question and contribute to knowledge formation in the respective fields.

Greene sums up the implications of her ideas with regard to reflective teacher education this way:

So the concern of teacher educators must remain normative, critical, and even political. Neither the teachers’ colleges nor the schools can change the social order. Neither colleges nor schools can legislate democracy. But something can be done to empower some teachers-to-be to reflect upon their own life situations, to speak out in their own voices about the lacks that must be repaired, the possibilities to be acted upon in the name of what they deem decent, humane, and just. (1978b, p. 71)

Reflection in teacher education would not be an add-on or an option. It would be the driving force, the only means by which the principal purposes of education – understanding, “wide-awakeness,” moral agency, freedom – can be achieved.

Marilyn Cochran-Smith and Susan Lytle: Background

Marilyn Cochran-Smith and Susan Lytle are contemporary teacher educators. They differ from the other foundational thinkers in this section in a number of ways, not the least of which is that they are currently living and working in the field. In addition, they characterize themselves primarily as teacher educators, as opposed to educational philosophers. We could have easily, therefore, included them in the next section on *Contemporary Conceptualizations and Models of Reflection*. We decided upon this placement because of their work with the notion of *inquiry as stance*, an idea that seems to us to be definitional with regard to reflective teacher education. This construct not only draws upon and synthesizes Dewey’s, Freire’s, Schön’s, and Greene’s formulations of reflection, it also differs in some significant ways. It is more than a form of reflection or an approach to its engagement; indeed

the term “reflection” is not directly employed. *Inquiry as stance* is an overarching “grounded theory of action” (Cochran-Smith & Lytle, 2009, p. 119) that incorporates reflection, particularly “critical reflection” into its workings, which implies a different definitional orientation to the concept. At any rate, their work can, very appropriately, serve as a transition from definition to enactment.

The Role of Reflection in Education

In part because they are teacher educators and in part because they have been doing this work at a time when the school reform effort is focused on teacher quality, their interest is on understanding and characterizing teacher learning. This is not, of course, separate from a concern for student learning; in fact the aim of improving teaching is the enhanced achievement of all students with an emphasis on all. Like Dewey, Freire, and Greene, the fundamental purpose of education is to bolster democratic functioning through greater social justice. Due to this orientation, they consider the prevailing view that teachers’ work is important to be a good news/bad news situation (Cochran-Smith, 2004a, p. 3). The good news is, of course, giving credence to the centrality of the teacher’s role in the learning process. The bad news has to do with the oversimplification to which that perspective tends to lead. This is especially problematic when there is no consensus on what teacher quality actually means. Even worse is when there is a dominant perspective driving reform efforts that is quite discrepant from what they, and all the other educational thinkers we have discussed, believe and value, which is currently the case in the United States and other countries that have adopted US-based reform efforts.

Thus, their primary intent has been to articulate what should be, “the underlying conception of teacher learning” by providing, “an analytic framework for theorizing teacher learning on the basis of fundamental ideas about how knowledge and practice are related and how teachers learn within communities and other contexts” (Cochran-Smith & Lytle, 1999, p. 251). They begin by making distinctions among the three dominant conceptions of teacher learning, which they refer to as: “knowledge-*for*-practice,” “knowledge-*in*-practice,” and “knowledge-*of*-practice.”

Knowledge-*for*-practice is the most prevalent; many of the current reform agendas for improving teacher learning are based on this conception. Teachers are to come to know what is, “already ‘known’ – at least already known by university-based researchers and other outside experts” (Cochran-Smith & Lytle, 1999, p. 259). Each individual teacher is to learn more about both curriculum and pedagogy and then solve problems by employing “empirically certified best practices.” Reflection really plays no role here at all.

Their definition of knowledge-*in*-practice is quite consistent with the ideas of both Schön and Dewey. This teacher knowledge, “is manifested in their actions and in the decisions and judgments they make in an ongoing way,” and it is, “acquired through experience and through considered and deliberative reflection about or inquiry into experience” (Cochran-Smith & Lytle, 1999, p. 262). Like the

knowledge-*for*-practice, this knowledge is already known, but in this case by expert teachers, often tacitly. Individual novice teachers learn reflective teaching from expert coaches in interactive reflective practica.

The third conception, knowledge-*of*-practice, is more consistent with the notions of Freire and Greene. It is the one that Cochran-Smith and Lytle most agree with. The key differences between this category and the other two are: this knowledge does not exist separate from the knower; there is no distinction between expert and novice; the knowers and the knowledge are always connected to larger political agendas; and the learning is done in a collective with other educators broadly defined. In inquiry communities teachers at all stages of their career construct local knowledge that transforms their educational contexts in ways that will improve the learning and life chances of their students. It is not a process that has a beginning or ending; it is and needs to be ongoing and lifelong.

From this latter framework Cochran-Smith and Lytle generated a construct they refer to as *inquiry as stance* (1999, 2009), that, “positions practitioners’ knowledge, practitioners and their interactions with students and other stakeholders at the center of educational transformation” (2009, p. 123). This practitioner knowledge is never static or discrete; it is subject to continual interrogation and reformulation using the multiple perspectives of teachers, students, community members, and knowledge generated from the theory and research of others, all of which are also subjected to ongoing critique. That analysis needs to raise not only instrumental questions about how to teach better, but also ethical and political questions regarding aims and values, e.g., to what end, why does it matter, and who benefits. And the answers to such questions must be consistent with the ideals of a socially just democratic system.

Inquiry as stance is not a discrete activity, but rather a way of knowing, a habit of mind that is simultaneously a theory of action, not just for the teacher, but also for all involved in the learning process. It is broader than, yet inclusive of our previous definitions of reflection; being reflective is a necessary, but not sufficient, aspect of an inquiry stance (2009, p. 121). They summarize the construct this way: “The idea of *inquiry as stance* is intended to emphasize that teacher learning for the next century needs to be understood not primarily as individual professional accomplishment but as a long-term collective project with a democratic agenda” (1999, p. 296).

Implications for Reflection in Teacher Education

Not surprisingly, less extrapolation is needed to delineate the implications of Cochran-Smith and Lytle’s notion of *inquiry as stance* for teacher education. In fact, the gestation of the idea really came out of their efforts to construct a social justice teacher education programme and their 3-year study of urban inquiry communities, rather than the other way around. Of course, it would never be about the identification of best practices – a recommendation of particular strategies that all teacher education programmes should use. Instead, in Cochran-Smith’s book, *Walking the Road: Race, Diversity, and Social Justice in Teacher Education* (2004b),

she defines teacher education as a learning and political problem, as opposed to a training task confined within a certain period of time. What this means is that student teachers and experienced teachers, including their teacher educators, would work, “within communities to generate local knowledge, envision and theorize their practice, and interpret and interrogate the theory and research of others” (p. 14). They would be, “initiated into teaching through systematic and self-critical inquiry” focused on the development of these five perspectives:

- (1) Reconsidering personal knowledge and experience, (2) locating teaching within the culture of the school and the community, (3) analyzing children’s learning opportunities, (4) understanding children’s understanding, and (5) constructing reconstructionist pedagogy. (p. 49)

Student teachers develop these perspectives through critical reflection on their experiences and assumptions, gathered data and artifacts, and relevant theoretical and empirical literature. And they do so within the learning communities constituted by their programmes that will at least include them, their cooperating teachers, their teacher educators, their students, and as many other relevant parties as possible. Very importantly, this collective reflective inquiry should be constructed so as to initiate teachers-to-be into a lifelong commitment to comparable activity as the means by which educational transformation in the interest of greater social justice can occur.

Integrative Summary

These six philosophers and scholars have provided us with the foundational definitions of reflection in the teaching/learning process. As we have seen, there are some variations in these conceptualizations – differences in focus, magnitude, and structure, for instance. But they are, in the main, consistent and compatible, enough so anyway to provide teacher educators with an integrated, sound, and substantive guide for our professional work. Having already discussed the implications of each formulation for teacher education, we will simply highlight here some of the key points of commonality and enrichment that, through their mutual reinforcement, suggest necessities in reflective teacher education.

The aim of reflection in the learning process of students and teachers is to promote the democratic agenda through greater social justice. It is intended to enable individuals alone and together to achieve greater freedom. It does this by teaching folks to think, to understand, to question, to critique, and to imagine otherwise. It is the only way by which meaningful, empowering learning can happen. Thus, reflection is central to the purpose, content, and structure of teacher education programmes.

Reflective thinking is necessarily connected to informed action; it is praxis. Since social transformation and development is the intention, it is never solely about knowledge accumulation. Indeed knowledge does not exist apart from the

knower's educational engagements, engagements that are particular and context-dependent. Student teachers would need to be involved with the messy and unique dilemmas of practice and they must do so in collaboration with communities of inquiry that would bring multiple perspectives to the deliberations. Teacher educators would be a part of these communities and subject their own assumptions, experiences, and ideas to perpetual re-evaluation.

These inquiries would be focused on and respectful of the particular learners involved and their strengths, needs, and aspirations. Attempts to enhance the life chances of every student would require as much problem framing and reframing as design formulation, enactment, and assessment. It could never be, therefore, formulaic – a list of best practices to choose from and apply. Reflection is instead a life-long, cyclical process – a habit of mind and theory of action that characterizes all efforts to foster learning, which is teaching. Teacher education must be designed to engage professionals-to-be in these inquiry processes in ways that would not only help them to learn how to do reflection-in-action and reflection-on-action, but also acquire the passion for and commitment to the moral and political work of educational and social transformation that is reflective practice.

Many teacher education scholars have taken these fundamental ideas and endeavored to embody and adapt them for specialized contexts and contemporary developments. In our next section we will look at some of the most prevalent and influential.

Part 3: Contemporary Conceptualizations and Models of Reflection

Overview

In Part 3 we consider contemporary conceptualizations and models of reflection in teacher education and professional development. These are all models of reflection-on-action. To be clear, our guiding assumption is that the purpose of reflection-on-action is to get better at reflecting-in-action. Even though, as Schön (1983) wrote, the artistry of reflection-in-action – or “intuitive knowing” –

is always richer in information than any description of it, descriptions of reflection-in-action may be good enough to enable an inquirer to criticize and restructure his intuitive understandings so as to produce new actions that improve the situation or trigger a reframing of the problem. (pp. 276, 277)

Furthermore, full consideration of the contextual elements that shape those understandings and multiple frames for interpreting experience require time and input from others, something that can only happen after an experience. Psychologist Daniel Kahneman (2011), (also winner of the Nobel Prize in economics), makes a parallel distinction. He distinguishes between two kinds of thinking: fast and slow. The former, which is more intuitive, is done by the “experiencing self,” and the

latter, which requires self-control and effort, by a “remembering self.” These are analogous to reflection-in- and reflection-on-action.

We divide Part 3 into four sections. After a brief overview of the nature of reflection-on-action, we consider the nested layers of student, teacher, and teacher educator, looking at practices in each domain. Reflective practices for students are not widely written about in the field, though they exist. We look at two: student feedback and the “rise above” techniques of Knowledge Building (Scardamalia & Bereiter, 2006). Practices for teachers, on the other hand, are numerous. We look at just three: descriptive inquiry practices (Himley & Carini, 2011), core reflection (Korthagen & Vasalos, 2005), and action research. For the most part, what is good for the teacher, is good for the teacher educator. However, self-study in teacher education has grown as a particularly salient practice that deserves special mention here.

Reflection-on-Action

If the purpose of reflection-in-action is to respond skillfully to students’ learning in the moment, the purpose of reflection-on-action is to prepare and practice for this eventuality. Just as the practice of meditation disciplines the mind to see and respond in the moment, and not to react, so too does the practice of reflection-on-action prepare a teacher to act thoughtfully in the blink of an eye, bringing with her the awareness that considered observation, discussion, and reading has built.

Assumed in this discussion is a commitment to students’ learning as inquiry. Like Cochran-Smith and Lytle, we take an “inquiry stance” not only in terms of teachers’ learning, but also students’ learning, as did each of the thinkers described above. We cannot value teacher inquiry/reflection without also valuing student inquiry/reflection. We therefore assume that the kinds of teaching practices being reflected on are inquiry-based practices, where there is more to reflect on than teachers’ lectures and direct instruction. Assumed here is a commitment by teacher education programmes to develop teachers who believe that, as Dewey wrote, experience (interaction with the world) is at the heart of effective learning. Reflection on good lectures is not without value, but it is not the same thing as reflection on students’ learning. Reflection-in-action requires such an orientation, otherwise, there is no action to reflect on but one’s own.

Students: Practices

Learners as partners in reflection are seldom considered when it comes to teachers’ reflecting-on-action. What follows are two practices that involve students deeply in the process of reflection. The first is descriptive feedback (Rodgers, 2006), and the second is the “rise above” function performed by students in Knowledge Building (Scardamalia & Bereiter, 2006; Zhang, Scardamalia, Reeve, & Messina, 2009).

Descriptive feedback is, “a reflective conversation between teacher and students wherein students describe their experiences as learners, with the goals of improving learning, deepening trust between teacher and student, and establishing a vibrant, creative community on a daily basis” (Rodgers, 2006, p. 209). Working within the reflective framework based on Dewey’s view of reflection, Rodgers situates descriptive feedback in the Description phase of the reflective cycle (see Fig. 17.1). She stresses that while observation of students – of their work, discussions, and actions – especially when the classroom is set up to provide broad, direct, and active interaction with the subject matter through a process of inquiry, provides critical information about students’ learning, students’ own inner experiences are often inaccessible without asking about them. Too often, Rodgers argues, pre-service teachers are asked to reflect in journals by writing about what went well, what didn’t, and what to do differently next time without gathering students’ perspectives. Not only do students contribute to the teacher’s perceived data base of what they have learned and how well, but they also have the opportunity to offer ideas about what would better support their learning. Feedback then becomes an exercise not just in getting students to adjust to the teacher’s teaching, but also makes it possible to jointly affect the course of both their learning and a teacher’s teaching. As Rodgers puts it:

The feedback dialogue also offers the opportunity to work in a democratic partnership, granting students the authority to voice their own experience and contribute to decisions that directly affect them. Imperative in this picture is the need for teachers to examine their own motives so they can hear and see their students clearly. (p. 214)

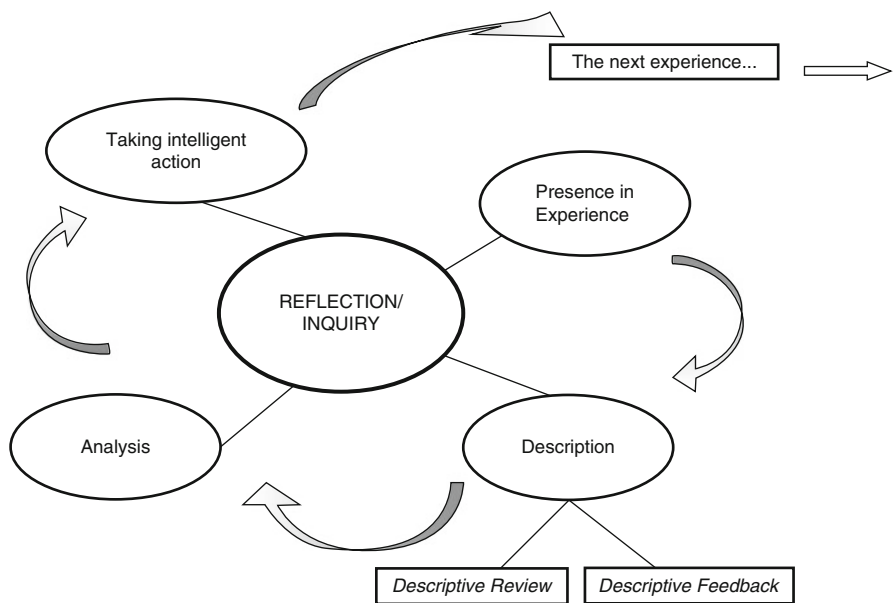


Fig. 17.1 A picture of reflection (Adapted from Rodgers, 2006, p. 215)

The initial structure for the feedback dialogue rests on eight questions: What did you learn? How did you learn it? How do you know you learned it? What helped your learning? What hindered your learning? How did you feel? And, What can both you and I do that would help your learning more? She outlines several caveats for proceeding with the dialogue (e.g., not getting caught up in defending one's teaching decisions), and provides evidence for such collaborative reflection-on-action. As one teacher said, "'I'm learning that my students truly hold the answers to the improvement of my instruction and bettering their learning'" (p. 232). Teachers and students, Rodgers claims:

feel present to each other, not only as roles – teacher, student – but as human beings who are from moment to moment in the process of change, and who therefore have the need to talk about how that change affects their joint efforts at learning. (p. 233)

Importantly, feelings are seen as critical in the learning process and description of these feelings is welcome. Finally, what is good between teachers and children also works between teacher educators and teacher-learners. Feedback has no age parameters and is as important to good teacher education as it is to good teaching.

Knowledge Building takes descriptive feedback and student reflection-on-action even further by incorporating the feedback process directly into the structure of ongoing teaching and learning through two separate practices: "rise aboves" and a computer-based tool for reflection on learning called Knowledge Forum®. Knowledge Building, an approach to teaching and learning, was developed by Bereiter and Scardamalia (1993, 2003) and based on a model of work developed by highly innovative practicing scientists, scholars, and companies (Zhang et al., 2009, p. 8). Drawing from progressive roots and extending them, it seeks to engage students in continuous reflection on what they are learning, how, and what might come next in their quest for communal (rather than merely individual) understanding and knowledge creation:

This includes reviewing and understanding the state of knowledge in the broader world, generating and continually working with promising ideas (Bereiter & Scardamalia, 1993), providing and receiving constructive criticism (Sawyer, 2007), sharing and synthesizing multiple perspectives (Bielaczyc & Collins, 2006), anticipating and identifying challenges and solving problems (Leonard-Barton, 1995), and collectively defining knowledge goals as emergents of the process in which the group members are engaged (Sawyer, 2003; Valsiner & Veer, 2000). Members take responsibility for sustained, collaborative knowledge advancement, collaborative learning, as well as personal growth. They connect their own interests and expertise with those of the community to achieve their individual and collective goals. (Amar, 2002, p. 9)

Central to the approach is the collaborative relationship between teachers and students. According to Scardamalia (2002), the teacher guides rather than directs, and students are accorded significant responsibilities from planning, to execution, and evaluation.

As with descriptive feedback, there are periodic, structured dialogues among students and the teacher that step out of the action. Called "rise aboves," these meta-conversations assess students' "knowledge advances," "how they achieved those

advances,” and ideas for different or deeper lines of inquiry (Zhang et al., 2009, p. 20). Unlike feedback, however, the dialogue is explicitly one of “we” rather than “I”, where the focus is on the knowledge that is being jointly, rather than individually, constructed. It is also primarily on the knowledge being created, without space deliberately created for the emotional experience of learning, as with descriptive feedback.

A second form of reflection on action within Knowledge Building is Knowledge Forum[®], an online forum specifically structured as a repository for students’ thinking – questions, discoveries, and responses – which distributes learning more broadly, making it accessible to the entire group (and the teacher), and available for meta-reflection later on, becoming knowledge that is not just students’ recollections of what and how they learned, but is accessible data.

We mention Knowledge Building here as a promising approach that takes reflection among teachers and learners seriously, incorporating it not as an add-on but as an essential aspect of teaching and learning.

Descriptive feedback, “rise aboves”, and Knowledge Forum[®] each offers a mode of reflection that involves students and draws upon their insights, and lends them real value. Reflection-on-action is too often a teacher’s self-report, based on his own perceptions of “how things went.” Such reflections, even when done in the company of other teachers, are limited in their scope. Asking for students’ reflections on “how it’s going” seems an obvious and fruitful move.

Teachers: Practices

While there are many approaches to teacher reflection-on-action, we cite three here that have proven particularly durable and effective, and are recognized as such through empirical studies. They also pertain specifically to pre-service teachers (though not exclusively so): core reflection (Korthagen, 2005); descriptive inquiry (Carini, 2001; Himely & Carini, 2011); and action research (Cochran-Smith & Lytle, 2009). Other modes of reflection-on-action for in-service teachers exist, of course. For example, Professional Learning Communities (Defour & Defour), Critical Friends Groups[®] (National School Reform Faculty), and the work of Charlotte Danielson (the Danielson Group) in the United States have grown into large, commercialized enterprises that have been contracted by school districts and states across the country.

Core Reflection

Core reflection, originally developed by Fred Korthagen and psychologist Angelo Vasalos (Korthagen & Vasalos, 2005) of the Netherlands, grows out of positive psychology and focuses on the “core” commitments of a teacher as the driving force

in reflective practice. It “calls out” more traditional forms of reflection like Dewey’s and Rodgers’ as hyper-rational, lacking attention to the emotions and awareness of the, “less rational sources of teacher behavior” (p. 50). While the authors embrace a reflective *process* in a sequence called ALACT (action, looking back on the action, awareness of essential aspects, creating alternative methods of action, and trial), which maps closely to the reflective cycle articulated by others (e.g., Dewey, 1933; Kolb, 1984; Rodgers, 2002a), they also bring to the table a neglected *content* in reflective practice: teacher beliefs, identity, and mission (commitments):

In core reflection ... there is less emphasis on an extensive analysis of the problematic situation, because recent psychological research shows that this leads to a narrowing of available action tendencies: the person is inclined to think within the boundaries of the problematic framework (Fredrickson, 1998; Levenson, 1992), and in this way often loses contact with the deeper levels inside. In core reflection, the focus is much more on (re) establishing this contact, and on creating room for new possibilities. Therefore, the following questions are helpful:

1. What is the ideal situation – the situation that the teacher wants to bring about?
2. What are the limiting factors preventing the achievement of that ideal? (p. 54)

With the support of a supervisor or mentor, the work then becomes the exploration of the self- or externally-imposed limits that block the movement from actual to ideal.

The thin line between mentored reflection and therapy is of concern to the authors. But rather than dealing directly with teachers’ “problems,” core-reflection aims at self- and contextual-awareness. It brings together the teacher and the person, something we have seen before in this chapter, seeing them not as separate, but as essentially one. Awareness of the ideal, of situational limitations, and of “core qualities” of the self brings to mind Freire’s notion of awareness of “limit situations” as well as Rodgers and Raider-Roth’s emphasis on connection to self. Most important is the focus on the capacities of teachers and bringing forth their ability to move toward the ideal they imagine (an echo of Greene’s (1995) work on imagination). By engaging this set of internal commitments, Korthagen and Vasalos argue that the work of reflection becomes more than mere problem solving. “Going deeper” is much closer to a form of personal growth and more a source of joy than a source of pain. In “core reflection ‘going deeper’ refers to the joyful adventure of digging into the richness of one’s inner potential by focusing on the positive feelings connected with this inner potential, and one’s inner sources of inspiration” (2005, p. 64). The “action” in core reflection-on-action, then, is as much about inner actions as those that are visible.

Missing from this model of reflection is attention to what Greene, Dewey, and Freire claim as an essential prerequisite to reflection – a commitment to democracy (or at least democratic principles) and the alleviation of human suffering, not just at an individual level, but in society. While Korthagen and Vasalos’ work paves the way for such work, it is not explicitly dealt with.

Descriptive Inquiry

Patricia Carini (2001), in her brief “Meditation: On Description,” writes,

Describing I pause, and pausing, attend. Describing requires that I stand back and consider. Describing requires that I not rush to judgment or conclude before I have looked. Describing makes room for something to be fully present. Describing is slow, particular work. I have to set aside familiar categories for classifying or generalizing. I have to stay with the subject of my attention. I have to give it time to speak, to show itself. (p. 163)

The descriptive review processes, collectively known as descriptive inquiry, were created over many years at the Prospect School in North Bennington, Vermont, a small private school that was founded in 1965 and closed in 1991. While the school has closed, these processes continue to be used by teacher education programmes and in professional development internationally. The processes include, most prominently, Descriptive Review of a Child, Descriptive Review of Student Work, Descriptive Review of Teaching as a Work and an Art Form, Recollections, Reflections on a Key Word, and Curriculum Interviews. Each process works within a view of reflection that includes, most obviously, description, analysis, and plans for action.

More importantly, the processes themselves are grounded in a philosophical perspective that grew out of discussions of readings in philosophy, literature, poetry, and theater, shared experiences, both recollected and in-school, and reflection on a vast collection of documents including student work, descriptive reviews of children over time, and curriculum notes.² The philosophy, “took seriously questions of what it means to be human, the nature of reality, knowledge, thinking, and learning, and ways in which education could nurture and extend the humanity of children and teachers” (Rodgers, 2011, p. 203).

Moving outward from a phenomenological orientation, the processes are committed to grounding the general in the particulars of lived experience. That is, each inquiry begins with concrete artifacts of experience (from curriculum diagrams – often called “trees,” which trace the evolution of the learning and teaching of particular subject matter – to student work, to stories), which are then carefully described before any conclusions about their significance are drawn. In addition, beginning from the premise that all reflection is aimed at bringing forth the child and/or the person of the teacher, with particular attention to their strengths and capacities, an analysis of what is “missing,” or lacking is eschewed.

The processes of descriptive inquiry, while always under revision, also tend to be fairly rigid. There is generally a presenting teacher who describes a student, presents student work, or shares a description and artifacts from her teaching, along with a focusing question. There is also a chair (or co-chairs), who, along with the presenting teacher, helps to craft the question and explores artifacts that might best embody the issues at hand. Usually there is a small group, somewhere between about 5 and 12 people, who sit in a circle and, after the teacher’s presentation, ask

²These are all currently housed in the University of Vermont’s Special Collections in Burlington.

clarifying questions or descriptions, one-by-one and uninterrupted, of what they see (for example, what they see in a child's piece of art or writing), staying as close to description (versus interpretation) as possible. The discipline of description reveals what is often bypassed by participants accustomed to looking for confirmation of their already formed judgments of students or themselves as teachers, or for criteria that must be fulfilled (or are lacking). After each round, there are "integrative summaries" by the chair. These summaries begin to group descriptions into themes, patterns, tensions, and silences that have become apparent. In other words, a tentative analysis and interpretation begins. Finally, the conversation moves past description to a more open-ended conversation about what might be going on, and suggestions for next steps. These phases from experience, through description, to analysis and interpretation, and finally action, closely mirror the various forms of reflection described in this chapter.

While this work is constantly undergoing the scrutiny and revision of those practicing it, it, too, has struggled to define a social commitment beyond a commitment to extending the capacities of the child, honoring parents, and transforming schools into places where the voices of both students and teachers are heard. The descriptive processes are necessary and capable of generating such transformation, but seem to fall short of the grander commitments articulated by Freire in particular.

Action Research

All forms of reflection are, in essence, research – gathering data, analyzing it, putting forth tentative explanations, and then acting upon them to see what such action might further reveal. At one end of the continuum is reflection-in-action where inquiry happens in the space of a moment. It has a structure, but perhaps a less conscious and deliberate one. At the other end is action research, which follows the formalized structures of research and happens over time. No matter the modes of reflection, each positions teachers (and students) as creators of knowledge within a social context.

The history of action research is complex and goes back to the beginnings of the twentieth century (McKernan, 1991). It bears the influences of the Science in Education movement of the early twentieth century; the progressive education movement (Dewey, 1916); the Group Dynamics Movement from social psychology and human relations training (Lewin, 1958); and Reconstructionist Curriculum Development (McKernan, 1991).

The literature on action research, also known as practitioner research and teacher research, is vast, but it all rests on the belief that, as Cochran-Smith and Lytle (2009) put it, "deep and significant changes in practice can only be brought about by those closest to the day-to-day work of teaching and learning" (p. 6). Grundy (1982) delineated three typologies of action research (as cited in Leitch & Day, 2000): the technical, the practical, and the emancipatory. The technical involved the identification of a problem and implementation of a certain intervention. The practical was

dialogical in nature and, “seeks to improve practice through the application of the personal wisdom of the participants” (Grundy, 1982, p. 357). The emancipatory, “promotes emancipatory praxis in the participating practitioners; that is, it promotes a critical consciousness which exhibits itself in political as well as practical action to promote change” (Grundy, 1987, p. 154). Each subsequent model is seen as subsuming the previous one and as superior to it. Noffke (1997) also identified three types of action research, though hers, unlike Grundy’s, are not hierarchical in nature, but have “equal status.” Noffke (1997) groups these within three dimensions:

the professional, the personal and the political. The first focuses on improving what is offered to clients in professional settings, the second is concerned with social action to combat oppression. The third, the personal, not necessarily separated from either of the others, is concerned with factors such as developing ‘greater self-knowledge’ and ‘a deeper understanding of one’s own practice.’ (p. 90)

No matter the value one ascribes to these orientations, it is important to note that, as Noffke and Somekh (2005) point out, “Action research is always rooted in the values of the participants.” Nonetheless, like Carr and Kemmis, Zeichner, Grundy, Gore, Cochran-Smith and others, and in accord with nearly all the thinkers (except Schön) introduced in Part 1 of this chapter, we see action research as embedded in a commitment to continuously question society’s presumed “ends” of education – its purposes. “[A]t the heart of practitioner inquiry,” note Cochran-Smith and Lytle (2009), “is problematizing the ends question” (p. 9).

From the beginning, action research has sought to disrupt accepted notions of “what is” by systematically problematizing “reality” and gathering evidence as a way of shedding new light on assumptions about it. In addition, it assumed from the beginning that positivistic views of research were insufficient to capture the complexities of the lived experiences of individuals and their problems within society. There is a moral imperative in this view of action research. As Brydon-Miller and her colleagues (2003) state, “Action research challenges the claims of a positivistic view of knowledge which holds that in order to be credible, research must remain objective and value-free” (p. 11).

The process of action research is fairly straightforward. Australians Wilfred Carr, Stephen Kemmis, and Robin McTaggart (Carr & Kemmis, 1986; Kemmis & McTaggart, 1988) were among the first to bring practitioner research to contemporary education, and their process is one that is frequently referenced in relation to teacher action research.

The form of the research cycle that they articulate resembles many of the pictures of reflection we have seen in this chapter: an iterative cycle of plan, act, observe, reflect. As with other forms of reflection, it begins with experience, either past or present. Building on what one knows, a plan to act takes shape. Within the critical paradigm, this plan would take into account the contextual forces that both support and impinge upon the power of participants to realize their human capacities within those contexts, with the intent to alter these contexts and thus participants’ experiences for the better. The second step would be to take action with full knowledge that any action within a social context bears a degree of unpredictability. In the

process of acting one observes – one’s self, one’s students, the contextual forces at play, and so forth, according to one’s purposes and objectives. Finally, one takes a step back to reflect upon – think systematically about – what has transpired and why, with an eye to the next time and one’s purposes.

Finally, according to Townsend (2013) there is, within the emancipatory tradition of action research, a push to “go public” with results. This stems from two imperatives: the “participatory imperative,” which derives from action research’s aspiration to be participatory – “to communicate with groups of people who might have had a part to play in the action research or who might be affected by it” (p. 122) and the “community imperative,” wherein the very activity of engaging together in research builds the community that is being researched. It also contributes to the broader population of people engaged with issues and problems similar to those being studied, and to our shared knowledge of teaching, learning, schools, and society.

Teacher Educators: Practices

In this section we highlight self-study. In truth many of the other practices described above could be and have been utilized by teacher educators to facilitate their own reflection-on-action, particularly action research. Similarly, with regard to core reflection, though it is designed to enhance the learning experiences of preservice and inservice teachers, Korthagen and Vasalos (2005) emphasize the need for their supervisors to be trained in and engaged with the practice. Furthermore, there seems to us to be much potential for the other practices, especially those focused on student growth, to be powerfully engaged by teacher educators in order to better embed their on-going growth and improvement in the learning of their students – their teachers-to-be. Regardless, there is no need to describe any of those practices again here, since the same dispositions and procedures would apply.

At any rate, there are ways in which self-study is distinct from the others, and thus deserves its own category. First of all, it was developed specifically by and for teacher educators. The name (and research domain) was generated by a group of teacher educators who formed a Special Interest Group (SIG) of the American Educational Research Association (AERA) in 1993, calling it The Self-Study of Teaching and Teacher Education Practices SIG (S-STEP). The purpose was for teacher educators studying their own practice to substantiate their formal theorizing through practical inquiry (Hamilton & Pinnegar, 1998, p. 235). This is changing; self-study is expanding into other fields including K-12 classroom teaching (LaBoskey & Richert, 2015). But its roots and the majority of this research is still situated within teacher education; the title of the self-study journal is indicative – *Studying Teacher Education*.

In addition, as a form of scholarship, it was never simply a way to engage in professional practice in more powerful ways; it was always considered to be more than a kind of reflection-on-action (Loughran & Northfield, 1998). It was conceptu-

alized as a new research methodology (LaBoskey, 2004) designed to generate knowledge about teaching and teacher education and with five fundamental characteristics:

- It is self-initiated and focused.
- It is improvement-aimed.
- It is interactive.
- It includes multiple, mainly qualitative, methods.
- It defines validity as a validation process based in trustworthiness (Mishler, 1990).

S-STEP research, “attempts to uncover what we know in our practice” (Pinnegar & Hamilton, 2009, p. 31). It helps to reveal, interrogate, and transform the knowing-in-action that Schön talked about in order to improve a teacher educator’s reflection-in-action. So, though it is more formalized and public than most other reflective teacher education practices, it is quite consistent with the foundational definitions. Like the democratic agendas of Dewey, Freire, Greene, and Cochran-Smith and Lytle, “S-STEP research is oriented toward an ontological stance of improvement and obligation toward others” (p. 55). It is not about, “developing objective generalizable truth claims” (p. 54), but rather, like Freire’s praxis, meeting, “our obligation to create practice environments that enable our teacher candidates to flourish in ways that, in turn, contribute to deeper learning for their future students” (p. 57).

In addition to the ontological stance of the researcher, the second most critical component of self-study, according to Pinnegar and Hamilton (2009), is the use of dialogue. An engagement in dialogue is an essential means for the self-study researcher to process and establish trustworthiness for their developing ideas, knowledge, and praxis. This, like Cochran-Smith and Lytle’s notion of *inquiry as stance*, demands that the work be situated in a community of learners who will provide the multiple perspectives and critical deliberations also called for by all of the foundational definitions of reflection. Such communal demands have significant implications for not only the forms that reflective teacher education needs to take, but also the contexts in which it must be situated.

Implications for Teacher Education

In an era where teachers feel the weight of more and more requirements and assessments, from student testing to teacher assessments, being piled upon them, what do these views of reflection offer that will not add to this burden but cut through it, transcend it? Reflection as journal writing or something to insert into a professional portfolio is not useful in this regard. We are “up to here” with procedural knowledge.

In an age where knowledge is easily retrievable via the Internet, having all that knowledge in one’s head is no longer a possible (if it ever was), nor desired endpoint of education. On the other hand, knowing how to think, how and where to find reli-

able evidence, how to weigh that evidence, how to think in terms of purposes larger than oneself, how to generate new ideas and knowledge that contribute to not only one's own growth, but that of others, of one's community, and society and caring deeply about these things – these skills and dispositions are what matter in the twenty-first century. Teacher education needs to keep in mind these purposes as it resists the push to comply with the requirements and assessments thrust upon it by powers that see the end point of education as being “college and career ready” – good workers – rather than, as Martha Nussbaum (2010) writes, the education of the “soul”:

The word “soul” has religious connotations for many people, and I neither insist on these nor reject them. ... What I do insist on, however, is what both Tagore and Alcott meant by this word: the faculties of thought and imagination that make us human and make our relationships rich human relationships, rather than relationships of mere use and manipulation. When we meet in society, if we have not learned to see both self and other in that way, imagining in one another inner faculties of thought and emotion, democracy is bound to fail, because democracy is built upon respect and concern, and these in turn are built upon the ability to see other people as human beings, not simply as object (p. 6).

If, on the other hand, we see reflection as an act of educating awareness, the soul, as virtually all of the thinkers suggest, it may well be of use to educate both teachers and students as aware, soulful, compassionate, joyful, imaginative, creative, reflective practitioners who are agents of change in the larger world, but also in the smaller worlds of schools and classrooms. Reflective teachers must be clear about the purposes of education. Otherwise, how does reflection make sense? It is so much bigger than what went well, what didn't and what needs to change. Teacher education needs to take up these questions of purpose. How do we go about that? These current conceptualizations and models represent some of the more robust responses to these questions.

Part 4: Closing Remarks

We articulated the implications for reflective teacher education of the various foundational definitions and contemporary conceptualizations and models as we proceeded. These discussions focused primarily on the specific orientations, purposes, practices, and systems those pursuing reflective teacher education might or even must incorporate into the programme to be consistent with the relevant notions. But it is not something that an individual teacher educator can accomplish alone. All definitions of reflective practice depend upon interaction, sometimes described as inquiry communities or critical friends or culture circles; thus, institutional and cross-institutional structures that will facilitate such collaboration need to be put into place. Ways to think about this might include physical spaces and schedule arrangements, as well as remunerative and promotional systems that support and honor time spent on such activities. Rapid technological innovations should help to make such interchange across time and space easier and easier, provided the tools and other support systems are in place.

In sum, we believe that the essence of reflective teacher education is this: it is not a matter of adding something new and externally derived, but rather of transforming what we are already doing, first and foremost by becoming more aware of ourselves, others, and the world within which we live together, including the oppressions that subdue and constrain us, along with ideas about how we might begin to imagine – and then produce – an otherwise. In doing so, we gain more control of our practice and our lives as professional teachers and teacher educators – we have more choice and more determinative power. Lacking choice, we are rendered less human, and our world, lacking our aware participation in it, becomes a less humanized, less humanizing place for ourselves and our students and their students. As Greene and the other foundational scholars said from the outset, reflective practice is the pursuit of freedom – not a strategy to be employed, but a way of being essential to the realization of democratic ideals.

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Chapter 18

Mentoring

Lily Orland-Barak

Introduction

In a recent feature article published in *Educational Researcher* (2014) Philip Dawson argued that more than three decades of mentoring research has yet to converge on a unifying definition of mentoring. Quoting Jacobi (1991) in her review of undergraduate mentoring, he sustains that the lack of a common definition grows out of the diversity of relationships that are classified as mentoring. Dawson, as Wrightsman (1981), Jacobi (1991), and Crisp and Cruz (2009) are all positioned within the literature of mentoring in higher education, with a distinctive focus on mentoring students in higher education. As I read the article and looked at its reference list, to my surprise I discovered almost no reliance on research studies on mentoring in the broader context of teacher education. Given the wealth of conceptual and empirical publications on mentoring in teacher education, one would expect to find some mention of leading studies in this area, especially since they offer insights on the generic character of mentoring and its growing recognition as a professional practice grounded in an empirical body of knowledge to guide standards and measures of professionalism across disciplinary contexts. For the purpose of this review, if I relied on this reference list, I would be able to spot only a thumbnail of studies out of the 426 studies identified for this search. Should this be surprising? Probably not. Finding a common language that represents an entire spectrum of professional activity for researchers and practitioners is almost an impossible task to achieve; more so in the educational research milieu with its competing paradigms, each established with its own conceptual and empirical language, very often not ‘talking’ to one another (Orland-Barak, 2014). Mentoring students in Higher Education does not ‘speak’ the same language as mentoring student teachers at

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schools or mentoring novices or experienced teachers at the workplace. Each of these categories is treated separately in the literature with reference to different journals and to distinctive research studies in each of the fields. Evidence of such disconnection comes from the recurrent thematic category of ‘mentoring’ subsumed in several, different divisions of the American Educational Research Association, not always talking to one another. For example, taking the frequent and parallel, but not always connected, appearance of Mentoring in ‘Teaching and Teacher Education’ (Division K) and the Mentoring SIG (Special Interest Group) of ‘Education in the Professions’ (Division I). Another example of competing languages and how these may add to the potential confusion and ambiguity in the field is reflected in the different terms used for conveying the same idea of the ‘recipient of mentoring’. As this literature review demonstrates, these recipients are often referred to as mentees, interns, student teachers, novice teachers, or protégées. Although each term is used to represent a particular stage or context of learning (internship, pre-service education, in-service education, induction) in essence, they all address a similar role.

Purpose

This review does not attempt the ambitious goal of ‘putting it all together in one integrative piece’. Rather, acknowledging the differences across views, tendencies and organizational frames, it zooms in to synthesize three decades of research on mentoring, specifically in the context of teacher education, gauging at both pre-service and in-service levels of the practice. The review attempts to offer an interpretative reading of core identified themes in the vast literature of mentoring for teacher learning in the context of teacher education. These themes are presented and discussed with a focus on conceptual and methodological paradigm shifts undergone by the field as well as on the different international contexts within which the study of mentoring has been conducted.

Methods

Data Collection: Literature Selection

Literature was selected through three different online databases to broaden the scope and embrace a wider gamut of publications. For inclusion in the review, studies had to meet two main criteria. First, they had to report original research findings, and second, they had to focus on the use of mentoring in an educational setting, namely, schools. Databases used for the literature search on education contexts included ERIC, LLBA, and Taylor & Francis. An ERIC search using key words

mentor OR mentoring AND teacher resulted in 580 articles. Following that, all non-journal publications were excluded, namely ProQuest and Online submissions including articles that didn't have explicit connection to educational mentoring in teacher learning contexts. That resulted in 142 articles that fulfilled the selection criteria. Similar searches were then conducted in LLBA and Taylor & Francis. LLBA search resulted in 23 entries, only 17 of which proved to be relevant to the topic of mentoring in an educational context. Searching Taylor & Francis provided another 268 relevant articles, 24 of which were already obtained in the earlier searches. Overall, the search of the selected education databases identified 426 papers published between 1990 and 2014. Table 18.1 summarizes the geographical division of the reviewed items (excluding literature reviews, general articles and articles with no access).

Data Analysis: Coding and Categorization

Abstracts of the publications found to match the criteria were transferred into a digital coding sheet. All of the papers were analyzed according to the coding sheet that was developed. Two main aspects of data were coded: Factual data included the year of publication, source (e.g., journal, research report), country of study, length of publication, and data collection techniques employed. Descriptive data included the following elements: Settings of teacher learning (pre-service, in-service, induction and mentoring preparation) aim of the study, main conclusions and implications associated with mentoring for the mentor, mentee, and mentoring programmes. We applied content analysis on the descriptive data to identify underlying themes or categories (Weber, 1990).

This review describes and discusses the main findings that emerged from the content analysis of the descriptive data and the coding of the factual data. The findings are structured according to six organizing-categories identified:

1. Being a mentor: Mentoring roles and functions
2. Mentoring relationships
3. Outcomes of mentored learning
4. Becoming a Mentor: Professional learning and knowledge development
5. Doing Mentoring: Mentor performance and pedagogy
6. The Context of Mentoring: Contexts, policy and programmes.

The sub-categories identified under each of the organizing categories are summarized in Table 18.2.

Table 18.1 Geographical division of reviewed items

Number	Country	Number of articles
1	United States (USA)	178
2	United Kingdom (UK)	78
3	Israel	31
4	Australia	19
5	The Netherlands	14
6	China	12
7	Norway	8
8	Canada	5
9	New Zealand	5
10	Sweden	5
11	Turkey	4
12	France	3
13	Cyprus	2
14	Estonia	2
15	Germany	2
16	Hungary	2
17	Pakistan	2
18	Finland	1
19	Japan	1
20	Jordan	1
21	Malawi	1
22	Palestine	1
23	Rhode Island	1
24	Romania	1
25	Slovenia	1
26	South Africa	1
27	Taiwan	1
28	The Cayman Islands	1
29	UAE	1
30	Vietnam	1
31	Zimbabwe	1
Total	Excluding literature reviews, general articles and articles with no access	386

Findings

Being a Mentor: Mentoring Roles and Functions

This thematic category reviews studies with a major focus on mentor roles and functions, on their professional identity development and on the kind of mentoring relationships associated with different roles: Emotional support, cognitive challenge,

Table 18.2 Themes and sub-categories

Theme	Sub-categories	Number of items
Being a mentor: mentoring roles and functions	Forms of support; the place of context in mentor roles; student teachers' perceptions of mentor roles;	106
Mentoring relationships	Emotional support; managing conflicts and barriers; relationships and mediation;	36
Outcomes of mentored learning	Outcomes of mentees' learning; process that enhance mentees' learning; conditions that support mentees' learning;	73
Becoming a mentor: professional learning and knowledge development	Mentors' knowledge; learning to mentor; contexts for mentoring preparation and development	61
Doing mentoring: mentor performance and pedagogy	Mentor pedagogy; mentoring performance skills; mentoring conversations; mentoring through technology;	74
The context of mentoring: contexts, policy and programmes	Mentoring programmes; mentoring within and across contexts; mentoring and policy	49
Others	Multi-thematic articles; items with no access (8)	27
Sum of items		426

feedback and scaffolding, generators of learning and mediators of knowledge, mediating between stakeholders, supervision and assessment, sustaining relationships and communication.

The mentoring literature on roles begins at the outset of the 1990s with attempts to discern distinctions between the various roles enacted by different players responsible for new teachers' induction: Head teachers, mentors, inspectors and advisory teachers (Turner, 1993; Williams, 1993). The kind of power relations identified distinctions by determining the nature of interactions and desired outcomes. To this end, early work is concerned with mentors' attributions of their role as expert teachers working with beginning teachers, often pointing at mentors' sense of discomfort with the kind of power bestowed on them as supervisors expected to observe and evaluate novices' lessons (Lemberger, 1992).

Forms of Support

Specifically, this cluster of studies focuses on redefining and reconciling traditional roles as teachers and roles as supporters and assessors along with the balancing of the dual roles of support and challenge (Orland-Barak, 2002). The distinctions between unique forms of support and competencies of mentors and the shift from being a classroom teacher to functioning as a mentor for new teachers (Field, 2005) and the forms of mentor support, how these reflect particular roles and how these are evidenced in actual practice, are also themes within this cluster of study.

During the mid-late 1990s we see a developing focus on the ways student teachers receive support by accessing teacher mentors' knowledge and expertise as classroom teachers in mentoring relationships with attention to the type of support that encourages such access. For example, in the context of the United Kingdom Moyles, Suschitsky, and Chapman (1999) suggest that quality of support is not necessarily linked with longer periods of mentoring. Rather, being available to the mentee is a key aspect of a mentor's role. Underscoring the importance of a collegial supportive school culture for the success of mentoring support systems, their findings suggest that when the head teachers provide a style of leadership that maintains the culture of peer professional support, mentoring becomes an element of that collegial ethos. On the issue of availability, again in the United Kingdom, Evans and Abbott's (1997) study suggests that a major element of effective support perceived by mentees is the time mentors can spend with them, an aspect of which mentors are often unaware. Their study also touches upon the passage from teacher to mentor, suggesting that mentor-school teachers' most important perceived commitment is to their pupils, hence leaving less time and energy to engage in school-administered teacher training. With a focus on how cooperating teachers in school-based teacher education programmes in the United Kingdom should support beginning teachers, Furlong and Maynard (1995) suggest preparing mentors towards educative, thoughtful and serious mentoring processes. These processes speak to Hawkey's (1998) recommendation to prepare mentors by challenging them to examine their espoused theories and their theories in action, with a focus on how these differ when the same mentor assists different student teachers (Hawkey).

From 2000 onwards, studies continue to focus on stressing the different roles carried out by mentors of teachers. For example, comparing formal and informal forms of mentor support in the United States, Wasburn, Wasburn-Moses, and Davis's (2012) study shows that formal mentoring around a specific activity can provide the right combination of emotional support, encouragement, and confidence building as much as informal mentoring. Furthermore, they found that accessing mentors' knowledge through informal channels was less likely to provide crucial interventions such as observing the novice and providing guidance on curriculum. In the context of formal mentor-student teacher interactions, several studies focus on how roles are realized in mentoring scaffolding processes and their consequences for promoting or hindering student teacher learning. For example, Mutton, Mills, and McNicholl's (2006) study, in the United Kingdom, focuses on conceptualizing supervisory support roles as the play out in mentoring dialogues with prospective teachers, and on contrasting mentors' perceptions of their roles and responsibilities. With a similar focus on comparing forms of support, Rajuan, Beijaard, and Verloop (2007) compare between student teachers and their cooperating teachers' perceptions of mentoring roles, in an Israeli practicum programme. They found that student teachers ranked very high the role of the mentor to provide support with technical strategies and tips for class management as compared to that of cooperating teachers. Interestingly, both student teachers and cooperating teachers ranked the academic and critical aspects of their support roles very low. The topic of roles is also examined the context of school-university collaborations and partnerships in

pre-service education (Fairbanks, Freedman, & Kahn, 2000; Long, 1997; Reid & Jones, 1997; Zanting, Verloop, Vermunt, & Van Driel, 1998). These studies emphasize definitions and perceptions of role around forms of support that are grounded in the mentor's educational vision to develop communities of teachers-as-learners, and to advance particular aspects of the teaching-learning environment.

The Place of Context in Mentor Roles

By and large, studies in this area attend to the cultural and political contexts that shape mentors' conceptions of role boundaries (Koster, Korthagen, & Wubbels, 1998), issues of tension between subject specialist roles and generalist roles at the background of the particular school context (Stanulis & Russell, 2000), and professional accountability of mentors and their professional obligations to new teachers and the public they serve (Turner, 1993). A few studies have focused on investigating the roles perceived by mentors as they interact with different stakeholders in the mentoring process. For example, in the context of China, Li (2009) found that mentors tend to take an authoritarian role on the evaluation of their protégés' performance. They also displayed a clear preference for functioning towards other stakeholders more as evaluators than as developers of their protégés' flexibility, creativity and initiative.

Mentoring support functions are also evidenced in the context of distance learning teacher education, such as self-trainer and networker (Butler & Cuenca, 2012). The attempt to define desired mentoring roles and functions is also reflected in studies around the context of recruitment and selection of mentors. For example, in Israel, Nasser-Abu Alhija and Fresko (2014) examined recruitment variables such as mentors' perceptions and attitudes towards matching, role conflict, and the mentoring experience. Other studies mention recruitment and selection parameters in their implications, for the kind of mentoring roles and functions expected in a particular context (e.g., Yavuz, 2011; Younger, 1995). In Yavuz' study in Turkey, for instance, students addressed problems of communication in regard to roles and responsibilities of mentors in terms of guidance, supervision and assistance, leading to specific suggestions for the selection and evaluation of mentors as an outcome of the process.

From the study of exemplary mentors' perspectives and perceptions of role, in Israel (Orland-Barak & Hasin, 2010), we learn that despite the different contexts of practice, star mentors share common perspectives towards mentoring in terms of educational ideologies and envisioned roles and practices, exhibited through the use of a similar professional language. These findings align with Dutch student teachers' perceptions of mentoring skills as combining emotional support and different levels of task assistance (Hennissen, Crasborn, Brouwer, Korthagen, & Bergen, 2011).

Student Teachers' Perceptions of Mentor Roles

From the perspective of student teachers'/mentees' perceptions of 'good' mentoring practices, studies have examined the ability of mentors to explicate to their student teachers the practical knowledge underlying their teaching (Zanting, Verloop, & Vermunt, 2001) as well as the tensions that emerge between student teachers and mentors' role expectations (Templeton, 2003). Studies point to the importance attributed by student teachers to feedback, collegiality, and reciprocity of the relationship, mentor availability and mutual trust as components of a successful mentor-mentee relationship (Löfström & Eisenschmidt, 2009). Indeed, the latter is strongly voiced in various studies that underscore the role of the mentor as responsible for sustaining mentoring relationships. Such a role stresses the importance of building trust, critical feedback and sensitivity to know when to interfere and when to sit back, and as well as to manage conflicts that might emerge between providing pragmatic feedback and functioning as a more relational counselor, equal partner and critical friend (Williams & Soares, 2002). To this end, studies stress the importance of developing the appropriate communicative abilities given the right resources and time (Burton, 1995).

Assessing Mentored Learning

The role of mentors as assessors of teacher learning is yet another aspect of mentors' roles that studies have focused on. From the mid 1990s onwards, there is a slow but growing focus on whether and how to integrate the mentor's role as assessor of student teacher learning. In the Dutch context, Davies and Harrison (1995) suggest that the cooperating teachers, who are now becoming more involved in school-based mentoring, play a significant role in directing student teacher's attitudes and teaching behavior. Their study raises contradictory issues regarding the specific functions of cooperating teachers as supervisors and assessors of student teacher learning and how these should be distinguished from similar roles attributed to university teacher educators-as-mentors. In the context of Swedish teacher education, Fransson (2010) conducted a formal summative assessment of newly qualified teachers. The study analyzed 108 official responses to a report submitted to the Ministry of Education. Findings suggest that few responses (23 out of 108) regarded assessment as an integral part of mentoring. The authors conclude that there is a need to consider the prerequisites, values and objectives of the educational context prior to deciding on the scope, content and processes of assessment of teacher learning by their school mentors. In New-Zealand, Ell and Haigh's study (2014) discusses the complexity of assessing teacher candidates' readiness to take their own class, suggesting that it is a high-stakes decision which requires consideration of multiple, often competing, sources of information. To this end, different complementary research instruments were designed to explore how mentors judge readiness to teach during final practicum placements. Findings suggest that mentors' individual judgments rely primarily on their own experiences and frames of

reference when deciding about readiness to teach. This leads to considerable variability regarding the decisions that they make when assessing student teacher learning.

Mentoring Roles and Functions: Implications for Practice and Policy

The major findings from the review of studies on mentor roles and functions suggest attending to a number of core aspects of mentors' roles and mentoring relationships to guide policy and practice. For one, it is clear that mentors need to be prepared for their roles. Such a preparation needs to put considerable emphasis on distinguishing between the passage from being a classroom teacher to functioning as a mentor of teachers, whether of new or experienced teachers. In each case, mentors need to be equipped with unique competencies for judiciously combining between support and challenge, according to the kind of mentoring relationship that is called for (mentoring student teachers, novice teachers, expert teachers). We also know that successful support systems are best sustained when there is a collegial supportive school culture and when the mentor's educational vision aligns with and is sensitive to the school culture. It is also clear that programmes for preparing mentors need to address issues of tension between subject specialist mentoring roles and generalist roles as mentors, as well as tensions that emerge between mentors' professional accountability to their various constituents (such as obligations to new teachers, to the public they serve, to the teacher education institution or Ministry of Education). To this end, the literature highlights a number of key functions in order to manage the various challenges described. These are: Providing feedback that is both supportive and challenging, establishing collegial relationships, being available for the mentee, establishing mutual trust, engaging in critical feedback, knowing when to interfere and when to sit back, managing conflicts of interest and competing agendas, providing pragmatic feedback alongside functioning as a more relational counselor, partner and critical friend. We also learn that mentors' assessment of student learning is by and large idiosyncratic, relying mostly on mentors' personal own experiences and frames of reference (rather than on a set of defined criteria that draw from a recognized body of knowledge). This hints at the still tentative and often elusive structures of mentoring and mentored learning programmes as well as of those of mentor selection for working in particular contexts of practice.

Mentoring Relationships

Zooming in to the theme of *mentoring relationships*, 21 articles were identified. The theme of *mentoring relationships* has received significant attention in the literature around issues related to emotional support, managing conflicts and mentoring relationships while mediating learning. Regarding expectations from mentoring relationships between novices and their mentors in general, Wang and Odell's (2002)

earlier review of the literature suggests that there is considerable consistency between novices and mentors' expectations of mentoring relationships across pre-service and induction programmes. By contrast, however, Bullough, Young, Hall, Draper and Smith's (2008) study of nine mentors and mentees in the United States points to differences in expectations between the two, in regard to role expectations, conceptions of teaching problems, and ingrained beliefs identified in mentor-mentee relationships. Their analysis suggests that cognitive complexity plays a large role in relational difficulties associated with the differing expectations of mentors and mentees. For example, mentors held strong assumptions that learning to teach was sufficiently challenging to mentees and, therefore, their main role as mentors was to offer emotional support while avoiding criticism. The group of mentees, on their part, expected to be challenged conceptually through critical reflective processes that they felt could not initiate on their own.

Emotional Support

Within relationships, several studies stress emotional support. In the early 1990s, Tellez (1992) focuses on the informal help or advice that 128 US beginning teachers seek, suggesting that beginning teachers are selective in seeking help from experienced teachers they perceive as friendly and caring, independent of whether the teachers are formally recognized as their mentors. Also in the United States context, Bainer and Didham (1994) specify the kind of support behaviors that teachers seek at school, ranking mentoring as one of the prominent ones. Focusing on particular forms of emotional support that mentors provide at both pre-service and induction levels, Wang and Odell's review points to aspects such as socio-emotional support regarding local policy, resources and norms of the culture of teaching to which novices are inducted (Wang & Odell, 2002).

Managing Conflicts and Barriers

From the early 1990s studies focus on how mentoring relationships can be developed and sustained through collaborative frameworks such as action research (Healy & Welchert, 1990), through joint construction of relationships undergirded by mutual respect and acknowledgment of tensions and uncertainties that emerge within the mentor teacher-student relationships, in school-university partnerships (Abell, Dillon, Hopkins, McInerney, & O'Brien, 1995). Beginning teachers' socialization as shaped by the mentoring relationship that develops is also a focus of study. In the United States context, for example, Gratch (1998) presents an unsatisfactory mentoring relationship that eventually had implications for the novice's unsuccessful socialization into teaching. Issues of identity in managing relationships are also treated in the literature. Still in the United States, Johnson (2003) discusses teacher identity issues in an EFL mentor-student teacher dyad, pointing to connections between identity and caring, cultural ways of knowing and doing and

to conflicting religious beliefs that might emerge in teacher-student relations. Adopting a more deterministic approach to mediation, Kilburg and Hancock (2006) examine the recurring problems that can inhibit K-12 mentoring team relationships, in four school districts in the United States, and the intervention strategies, in the authors words, to 'remedy' these problems. In this spirit, they suggest paying attention a number of supporting conditions such as continual assessment of mentoring programmes, financial commitment from the school district and a rigorous mentor selection process. Kilburg (2007) identifies four common problems encountered during formal mentoring relationships, in the United States, affecting the mediation of learning: institutional barriers, issues of time, lack of emotional support, and poor interpersonal skills. Investigating 149 mentoring teams in four school districts over a 2-year period, the study indicates the need for a closer examination of the principal's role in providing the necessary conditions for maximizing the benefits of mentoring processes at schools. An interesting observation around conflicts and barriers that emerge from mentoring relationships is captured by Wang and Odell (2002), in their review. They distinguish between two types of research literature that touches upon the issue from differing perspectives. One is the programme implementation literature, which highlights the dilemmas of teachers becoming mentors and the conditions that shape their developing mentor roles. The other one is the induction literature that focuses rather on the teacher as the recipient and beneficiary of mentorship. Turning attention to the latter less attended perspective, they contend, also raises important issues around conflicts and barriers that mentors experience when teachers' receptivity, and gratitude for aid is questioned.

Attending to the above aspects of mentoring relationships, the research literature between 1995 and 2000 also focused on characterizing the nature of relationships between mentors and student teachers at school, often stressing their character as 'buddy relationships' (Ballantyne, Hansford, & Packer, 1995, in Australia), on creating channels of communication between various partners and assessing teaching competence (Turner, 1993, in the United Kingdom), on creating organic relationships and partnerships and developing teachers as reflective practitioners (Carver & Katz, 2004, in the United States). Studies also point to prevailing perceptions of mentoring relationships as built around peer collaboration, observation and sharing of responsibility for instruction (Gardiner, 2010, in the United States).

Relationships and Mediation

From the 2000 onwards, we also see a surge of studies that focus on mentoring relationships which stress the mediation of knowledge in activity, describing how mentors position themselves in their own school and in training partnerships. Specifically drawing on positioning theory, Bullough and Draper (2004) describes the negotiation of power and positioning processes in a mentoring triad that led to an unsuccessful learning experience for the intern, in the United States. Similarly, and drawing on interview data from immigrant teachers in Australia, Peeler and Jane (2005) discuss the dilemmas for their professional development and shifts in

their definition of self. Mentoring relationships are discussed as a way of bridging the gap between teachers' positions and the social elements of learning and teaching in their new local contexts. Wang and Odell (2007) conceptualize 16 types of mentor-novice relationships and identifies the challenges and complexities associated with mediating novices' learning toward reform-minded teaching. Drawing on exemplary mentoring cases, from several countries, they illustrate mentor-novice relationships, suggesting that developing a shared vision for teaching is a central challenge for using mentoring to support reform-minded teaching. Schmidt's (2008) qualitative study, in the United States, examined the growth of a failing novice teacher whose progress seemed to be related to the quality of mediation as directly related to the kind of relationships she established with different mentors. Three factors appeared to contribute to her success: The style of mentoring, the process of integrating multiple resources and models, and the gradual alignment of the novice's stated knowledge and his teaching practices.

The quality of mentoring relationships and the mediating roles adopted within them is also attended in Ambrosetti and Dekkers (2010), stressing the importance of interconnectedness between partners, in the Australian context. Rajuan, Beijaard, and Verloop (2010) found that in Israeli teacher training programme, matched expectations between student teachers and cooperating teachers explained a high degree of support in student teachers' perceptions of learning to teach, whereas mismatched expectations explained a high degree of challenge. The study concludes that the mixed pattern provides opportunities for mediating learning in an optimal way. Young and Cates (2010) explore the roles of 62 mentors and protégés in the United States as they manage dialectical tensions in the mediation of learning in mentoring relationships. Their analysis reveals that both empathic and directive listening helped the protégé relieve tensions, supporting cognitive reappraisal models of mediation that attend to empathic and directive listening.

Mentoring Relationships: Implications for Policy and Practice

We learn from the literature review on this theme that there are often inconsistencies identified between mentors' conceptions of teaching problems and those of their mentees which, when left unattended, might hamper relationships drastically. These become more acute when socio-emotional support regarding local policy, resources and norms of the culture of teaching to which novices are inducted are ignored by mentors. When initiating mentoring school-university partnerships it is, then, crucial to acknowledge tensions and uncertainties of such a kind, especially if they involve differences between cultural ways of knowing and doing. To this end, mentoring programmes need to be constantly assessed and revised, including financial commitments from the school district (in the case of established partnerships) as well as mentor selection processes. We also know that common problems encountered during formal mentoring relationships that can dramatically affect the mediation of learning relate to institutional barriers, issues of time, lack of emotional support, and poor interpersonal skills. By contrast, mentoring relationships built

around matched expectations, peer collaboration, observation and sharing of responsibility for instruction seem to be successful and positively challenging conditions that allow for bridging the gap between teachers' positions and the social elements of learning and teaching in their new local contexts.

Outcomes of Mentored Learning

This thematic category synthesizes studies on outcomes of mentoring processes, primarily for the mentee, whether student teacher or novice. Compared to the abundance of studies identified in the previous category of roles, this theme is less investigated, suggesting a general tendency in the literature to disconnect between processes of mentoring and outcomes of mentored learning.

Outcomes of Mentees' Learning

An important study in this area is Cochran-Smith's (2001) study in the United States, which examines the outcomes of university-school mentoring collaborations for learning to teach against the grain for social justice, change and responsibility through critique, challenge of common practices and inquiry. Still focusing on learning to teach, but from the perspective of accessing knowledge from mentors, Zanting, Verloop, and Vermunt (2003) in the Netherlands examined 70 student teachers' mentored learning outcomes, showing how they learned to explicate the practical knowledge that they had accessed from their mentors. Student teachers evaluated interviewing and concept mapping as powerful tools for accessing concrete, practical as well as conceptual knowledge. Focusing on mentored learning outcomes, as reflected in 51 mentors and student teachers' appraisals and assessment of lessons during practice teaching, in the Netherlands, Tillema (2009) underscores the considerable variation of outcomes and perspectives exhibited by the different assessments, calling for a more integrated approach to mentored learning to teach. In Norway, Nilssen (2010) describes how mentoring can move student teachers' learning towards constructive teaching forms. Focusing on one in-depth mentoring case study in Norway, the study shows how the student teacher gradually learned to develop a habit of seeing the pupils through analysis of her own teaching. Also in the Norwegian context of mentored learning in mathematics pre-service education, Nilssen, Gudmundsdottir, and Wangsmo-Cappelen (1998) describe how the student teacher developed a language of practice to assist her in examining her own teaching within the zone of proximal development. Onchwari and Keengwe's (2010) is one of the few studies that attempts to connect between mentoring, mentored learning and children's academic performance. Examining the effectiveness of the nation-wide mentor-coach initiative in the United States towards enhancing teacher pedagogy and its effect on children's literacy performance, the findings suggest that for the 44 teachers and classrooms examined, reading and writing scores

benefited significantly more when the teachers participated in mentor-coach initiatives. Focusing on an in-depth case study in the United States, Norman and Feiman-Nemser (2005) attends to some of these connections by illustrating how educative mentoring actually assists and pushes new teachers to focus on students' 'mind activity', while building on their prior knowledge, experience and interests.

Processes That Enhance Mentees' Learning

Within the framework of cultural historical activity theory and activity theory, Moussay, Flavier, Zimmermann, and Méard (2011) describe the outcomes of a 1 year process of mentored learning for a pre-service teacher in France, showing how conflicts of interaction with trainers, peers, experienced colleagues, and students eventually prompted her to construct new goals and pedagogical actions as part of her professional development. Carter and Francis (2001) survey the learning of 220 beginning teachers and 245 supervisors and mentors in New South Wales government schools complemented with six case study schools in different settings across the state. The study indicated the relevance of mentoring support for beginning teachers' professional learning in their induction year. The case studies identified outcomes of learning related to key practices that were enhanced by transmission, transactional and transformational approaches to mentored teacher learning. Furthermore, beginning teachers who had gone through an internship year and had a formally designated mentor scored higher on overall satisfaction with school induction support and on performance, than those with informal mentors or no mentors. Critical ingredients in effective mentoring relationships were the availability of the mentor, and whether they were approachable, friendly, open and actively interested in the development of their beginning teachers. Beginning teachers reported on a high regard for mentors' professional expertise, assistance and support and mentors were valued for providing personal practical knowledge and situationally specific assistance in a diversity of teaching roles.

Making a case for collaborative subject matter oriented induction programmes Smith and Ingersoll (2004) survey in the United States examined the effects of mentoring induction programmes on the retention of beginning teachers. Results indicate that beginning teachers who worked collectively with mentors from the same subject field were less likely to move to other schools and to leave teaching after their first year of teaching. The study is one of the few efforts identified in this review to address Little's concern in her review (1990) back in the 1990s. As she contends:

The power of the mentor role to serve as an incentive to career retention and enhanced commitment has received far less attention in the research literature than its more instrumental aspects, despite the prominent attention to career incentives in the policy rhetoric. The major gains have been conceptual rather than empirical. (p. 338)

This important aspect related to outcomes of mentored learning is still, 15 years later, underdeveloped empirically.

Assessing the effects of collaborative mentoring sequences on the professional development of a pre-service teacher in France, Chaliès, Bertone, Flavier, and Durand (2008) suggest that processes of collaborative mentoring help to provide a better articulation of teaching experiences than traditional models. Orland (2000) describes the learning outcomes of a collaborative mentored learning conversational framework for a group of novice teachers in Israel. As a result of the sessions, the teachers published a booklet of their experiences that was presented in different teacher workshops. Examining case studies in which mentors influenced novices' learning to implement standards-based teaching practices, Wang and Odell's (2002) review of the literature underscores several common processes of teacher mentoring towards desired learning to teach outcomes. For example, encouraging reflective interactions around and re-interpretations of critical incidents in teaching through the perspective of reform-minded teaching, modeling decision making processes to develop solutions in standards-based teaching contexts and communicating constantly and flexibly with novices from where they are at in the learning to teach process.

Conditions That Support Mentees' Learning

In their review, Wang and Odell (2002) contend that teacher mentoring practices are not only shaped by the expectations of novices and mentors but also by school context, curriculum, and the organization of teaching. Several studies identified in this review attend to Wang and Odell's focus on the need to examine the conditions that support or hinder student teachers and novices' mentored learning to teach. Employing constructs from sociocultural theory in a study of 125 student teachers on two training programmes in the United Kingdom, Edwards and Protheroe (2004) discuss the impasses for student teachers' learning from their mentors namely due to the strongly situated character of their learning, which makes it difficult for them to transfer understandings from one context to another. Richter et al. (2013) investigated 700 German beginning mathematics teachers who participated in a pre-test/post-test study over the course of 1 year. The study examined the extent to which the quality of mentoring and its frequency during the first years of teaching influence teachers' professional competence and well-being. Findings indicate that it is the quality of mentoring rather than its frequency that explains a successful career start. They also suggest that mentoring that follows constructivist rather than transmissive approaches to learning enhance teacher efficacy, teaching enthusiasm, and job satisfaction and reduces emotional exhaustion. Connecting between mentored learning and its outcomes for teacher attitudinal change as classroom teachers, Dierking and Fox (2013) examine the effects of a National Writing Project professional development model on a group of middle school writing teachers, in the United States. The authors discuss how contact with other professionals and mentors influenced teachers' self-concept as professionals, as writers, and as colleagues. As a result, teachers were re-motivated to teach and gained confidence in their expertise and ability to make classroom choices and decisions. Devos (2010)

considers the implications of mentoring for the discursive formation of professional identities of newly graduated teachers in Victoria, Australia. The paper stresses the relationship between mentored learning and the performative culture of schools, suggesting that mentoring needs to be located within its institutional and political contexts as a technology for the production of worker identities. As she argues, the professional standards that were examined make brief reference to teachers as active members of their profession but this abstraction does not capture what it means to work in a complex and highly porous environment, with all its complexities, politics, tensions, and pleasures.

Outcomes of Mentored Learning: Implications for Policy and Practice

Connecting between processes and outcomes of mentoring seems to be the near challenge of future research on mentoring. The studies reviewed support this contention, especially when witnessing the considerable variation of outcomes and perspectives exhibited by the different forms of assessments, and the explicit call to present a more integrated approach to mentored learning to teach. Said that, examining processes and outcomes discretely, studies shed light on important outcomes of student teacher learning as a result of mentoring: Developing habits of seeing the pupils through analysis of their own teaching, developing a professional language to describe their practice, focusing on students' 'mind activity', while building on their prior knowledge, experience and interests, managing conflicts of interaction with colleagues, and constructing new goals and pedagogical actions. The processes that seem to promote this kind of outcomes relate to working collectively with mentors from the same subject field, encouraging reflective interactions around critical incidents in teaching, modeling decision making processes to develop solutions, and communicating constantly and flexibly with novices from where they are at in the learning to teach process. We also know that mentoring that follows constructivist rather than transmission approaches to learning enhances teacher efficacy, teaching enthusiasm, job satisfaction and reduces emotional exhaustion. Contact with other professionals and mentors also influences teachers' self-concept as professionals and as colleagues. The impasses identified for student teachers' learning from their mentors relate to mentoring processes that are not attentive enough to the situated character of teachers' learning, often misreading the teaching situation.

Becoming a Mentor: Professional Learning and Knowledge Development

This thematic category includes studies conducted on mentors' knowledge and professional development, on learning to mentor and developing expertise and on contexts for mentoring preparation.

Mentors' Knowledge

A recurrent paradox can be expressed this way: mentors' claims to professional expertise are both demanded by the role and denied by history and circumstance. Implicit in the title of mentor, advisor, consulting teacher, or master teacher is the presumption of wisdom—accumulated knowledge that can serve as the basis of sensitive observation, astute commentary, sound advice, and constructive leadership. What is the nature of knowledge to which a mentor might lay claim—knowledge that could serve as the basis of a relationship with teachers? The claims that underlie mentors' legitimacy rest both on the availability of an externally validated knowledge base and on the credibility of a recognizably knowledgeable work force. In practice, externally derived research knowledge and teachers' own experiential knowledge have often been accorded different weight (Little, 1990, p. 317).

Little's argument suggesting the need to recognize a professional mentoring work force which relies on externally and internally validated knowledge and experience alike is still, at the outset of the twenty-first century, a major challenge for the move towards the professionalization of mentoring. Said that, a considerable number of studies were identified that attends to the study of mentor knowledge. These studies began to surge from the late 1990s onwards. One recurrent topic, especially in the United States context, is preparing mentors with the relevant knowledge base to assist new teachers to manage the needs of culturally and linguistically diverse students. One example is Achinstein and Athanases (2005) study. Drawing on case studies from expert leading mentor practitioners, they propose a framework that equips mentors with both a bi-level and multi-domain knowledge base, focusing on the challenges of targeting both students and teachers. Upon enacting a bi-level knowledge base, the mentor assumes a bifocal perspective on teachers and students. Up-close, the mentor focuses on the new teacher, what she/he knows and needs and, simultaneously, holds the big picture of the students, their learning, and their needs. Pedagogical knowledge and knowledge of equity issues seems to be pivotal for mentoring novices to teach diverse youth and promote equitable learning. Mentors also need knowledge of how local and professional contexts affect new teachers' work, of what diverse learners bring to class and of how to challenge novices to teach culturally and linguistically diverse students while not blaming teachers.

Taken to contexts outside the United States, studies on mentors' knowledge also focus on the exchange and development of new knowledge amongst teams of professionals in Israel and in the Netherlands (Tillema & Orland-Barak, 2006), underscoring the potential of professional conversations as viable channels for such knowledge development. Using a mixed methods approach, the authors investigate two such study teams of mentors, indicating changes in participants' initial views of knowledge mediation as a result of team conversations. In the context of initial teacher training and induction in England and adopting a phenomenological, social constructivist approach to the study of mentoring Jones and Straker (2006) examine mentors' perceptions of the relationship between their professional practice and the knowledge that informs it. Findings suggest that there is a need to extend mentors' professional learning to areas beyond their knowledge as teachers when working

with teachers, such as becoming familiar with theories of adult learning as well as with generic principles underpinning mentoring. Achinstein's (2006) study in the United States and Clarke, Killeavy, and Moloney's (2013) case study in the United Kingdom highlight three critical domains of mentors' knowledge in regard to their political literacy: Reading, navigating and advocating. They discuss how mentors' political literacy can offer novices a way to act in schools' political climates, to address conflicts and, ultimately, to define a professional identity.

Learning to Mentor

Another recurrent topic dealt with in the literature is the process of learning by which mentors learn to become and do mentoring. To this end, a number of studies conducted by Orland-Barak, between 2000 and 2010 provide insights into mentor processes and outcomes of learning to mentor. In the Israeli context, Orland-Barak (2001) focuses on how two novice mentors who are experienced teachers learn to construe their new role by articulating differences and similarities between their practice as teachers of children and as mentors of teachers. Their evolving competencies are conceptualized through the metaphor of "learning to mentor as learning a second language of teaching", suggesting that the passage from being a teacher of children to becoming a teacher of teachers is a highly conscious and gradual process of developing communicative competencies, whereby the mentor learns to redefine her context of teaching in order to make sense of her new context of mentoring. In later study, still in the context of Israeli in-service education, Orland-Barak (2005a) explores learning to mentor from the acquisition of communicative competencies, as identified in initial study, towards a more discursive view of the process as "participation in competing discourses of practice" as identified in subsequent studies. Orland-Barak and Yinon (2005) draw on the methodology of critical incidents, to explore the perspectives of 20 experienced in-service mentors in Israel towards learning to do mentoring. Their stories of critical incidents shed light on the complex nature of mentors' professional expertise, suggesting that experienced mentors' reasoning and behavior constantly fluctuates between a novice and an expert stage, depending upon the nature of the situation and the type of mentor-mentee interaction that the mentor is confronted with. The study highlights the regressions and progressions that play out when experienced professionals take up an additional role, such as in the passage from teaching to mentoring.

Contexts for Mentoring Preparation

The acknowledgement of the role of mentor through formalized contexts for mentor selection and preparation for the job was already critically discussed in Little's (1990) review in the early 1990s:

The formalization of mentor roles brings with it institutional control over selection, or the systematic structuring of teachers' opportunity to assume professional leadership. Issues surrounding the criteria and process for selection have consumed a large share of the political and material resources devoted to implementation, and have occupied a central place in research. (p. 305)

In the context of a 1 year in-service professional development programme for mentors in Israel, Orland-Barak (2006) explored the process and content of mentors' professional conversations as opportunities for collaboratively constructing knowledge about mentoring. The analysis of the content of the conversations revealed that different forms of dialogue constituted unique opportunities for participants to co-construct meanings about different dimensions of their practice, such as jointly learning about possible solutions to a particular dilemma in mentoring or identifying shared experiences associated with mentoring. Several studies draw on social activity theory and action research as frameworks for learning to mentor. In the United States, Athanases et al. (2008) examines four case studies of mentors of new teachers who assumed leadership of teacher induction programmes. Using cycles of action research conducted in a teacher induction leadership network, the case-study inquired into the features of the mentor curriculum, suggesting that the main goal of mentor programmes in urban and high-need districts is to create spaces for mentors to develop action research and inquiry skills in order to systematically inform mentor curricula that is tailored to the particular needs of mentors, new teachers, and students. In Israel, Orland-Barak and Becher (2011) describe how an action research model develops participants' constructions of the gaps and contradictions that they identify in their practices as mentors. These gaps challenge the mentor to navigate as practitioner-researcher, between dyads of competing mentoring; for example, mentor as problem solver versus facilitator, mentor as agent of change versus preserving traditional practices of teaching and learning, and mentor as strategic manager versus reflective practitioner.

From the perspective of encouraging mentors' reflections on their practice, Orland-Barak (2005b) investigated the quality of reflection in two courses for mentors structured around the use of portfolios in Israel. The study surfaces the predominance of mentors' technical reflection on their experiences, raising the question of whether courses structured around the genre of portfolio writing can be conducive to authentic reflection on controversial experiences at interpretative, critical levels, especially in centralized educational systems.

Mentors' Professional Learning and Knowledge Development: Implications for Practice and Policy

The above thematic synthesis suggests that despite the growing number of studies supporting mentor selection within formal mentor preparation programmes, Little's (1990) critique still resonates as relevant and only partially attended:

To what extent do the formal selection processes—which may include formal applications, peer and supervisor recommendations, interviews, observations, simulations, or

portfolios—capture the prospective mentor’s persona among colleagues, or reflect teachers’ expectations of a mentor’s efforts? Despite the scrutiny given to the process by which teachers are selected to be mentors, a still greater burden of proof rests on the mentor who, once selected, must now actually mentor. Here the issue is the congruence among formal selection mechanisms, the actual demands of performance, and the informal regard of colleagues. Selection turns out to be less an event than a continuing process by which mentors earn their titles on the job. (p. 306)

Supporting Little’s and Wang and Odell’s (2002) later review, this review also suggests that further research is needed to develop a deeper and broader understanding of the effects of various models of mentor preparation on mentors’ knowledge, skills, and dispositions in relation to teaching.

Doing Mentoring: Mentor Performance and Pedagogy

This section presents studies that focus on mentors’ performance as related to the skills that they exhibit in practice and specifically, in mentoring conversations which is the main channel through which mentors enact their practice.

Mentor Pedagogy

Focusing on pedagogical issues related to mentoring performance, Martin (1997) reports on an ethnographic study of mentoring in two primary classrooms in United Kingdom. Findings suggest that mentors’ practices usually resemble their practice as teachers and the process and outcomes of mentoring interactions are strongly shaped by the contexts of mentoring. Also stressing mentoring pedagogy, Athanases and Achinstein (2003) draw on practices of 37 experienced teacher induction leaders and mentor/new teacher pairs in the United States. The study shows that mentoring pedagogy which focuses on knowledge of assessment processes can actually move student teachers from a concern with managerial issues to a focus on pupils’ learning, especially of those underperforming. These processes include pedagogies of assessment processes related to the skillful use of assessment tools for students, aligning the curriculum with standards, and formative assessment of the new teacher. Similarly, still in the United States, Achinstein and Barrett’s (2004) findings underscore the development of mentoring pedagogies that offer new teachers a repertoire of frames to diagnose and assess the needs of diverse students. Harrison, Dymoke, and Pell (2006) describe a 2-year induction project in the United Kingdom. Findings suggest that best mentoring practices involve elements of challenge and risk-taking within supportive school environments with clear induction systems in place and strong school ethos in relation to professional development. Moss (2010) focuses on the induction and mentoring pedagogies of early career teachers in the context of a suburban primary school in Victoria, Australia. The study underscores the value of developing reflective mentoring practices of ‘noticing’. Using the

pedagogy of lesson study Cajkler, Wood, Norton and Pedder's (2013) case studies were conducted in two secondary school teaching practice placements in England. It was found that lesson study as a mentoring pedagogy assists participants to explore collaboratively what they refer to as the 'pedagogic black-box' enriching the experience and learning of both trainees and mentors. If successfully integrated, lesson study can support teacher development in teaching practice placements.

Mentoring Performance Skills

As early as 1988, Anderson and Shannon (1988) suggest specific behaviors such as teaching, sponsoring and counseling to further the personal and professional welfare of the protégé. These behaviors are, later on, referred to in the literature as mentoring skills and strategies. From the perspective of mentors' skills, in a United States context, Barnett (1995) focuses on the value of utilizing reflective questioning strategies, of clarifying and probing responses, as well as taking a non-judgmental stance towards mentoring student teachers. Connecting mentor skills and the design of training programmes in the Netherlands, Crasborn, Hennissen, Brouwer, Korthagen, and Bergen (2008) investigated video recordings of 60 mentoring dialogues before and after participating in a mentor training programme. It was found that training positively affected the use of supervisory skills around reflection in mentoring sessions with student teachers. In Finland, distinguishing between ethical and unethical mentoring pedagogies, Atjonen (2012) conclude that ethical mentoring pedagogies are characterized by student-centeredness, constructive feedback, careful and empathetic listening and the right combination between flexibility, demand and support. By contrast, unethical mentoring pedagogy is authoritative, devoid of feedback, disrespectful of student teachers' needs, does not keep privacy and neglects basic tasks. Olsher and Kantor's (2012) self-study in Israel explores the instruction of a novice teacher by an expert mentor teacher, while applying the strategy of asking questions rather than telling. Examining the educational potential of question-asking as a key strategy in mentoring, the study suggests that the non-judgmental questioning dialogue strengthened the novice teachers' self-confidence and professional identity and helped the mentor to reframe her own ideas about mentoring. Focusing on 27 Australian experienced mentors' articulation of their pedagogical knowledge, Hudson's (2013) qualitative study focused on specific mentoring practices such as planning, timetabling lessons, preparation, teaching strategies, problem solving, questioning, classroom management and assessment of teaching. Findings showed that there were multiple strategies linked to specific pedagogical knowledge practices such as planning for teaching which also includes co-planning, verbal reflection on planning and showing examples of teacher planning. Drawing on its findings, the article provides a bank of practical strategies for mentoring pedagogical knowledge practices to assist a pre-service teacher's development.

Mentoring Conversations

The issue of mentors' capacity to express their practical knowledge and the unique features of their expertise is at the heart of this theme. This issue pertains to mentors' ability to make what they know accessible to others, their commitment to such an endeavor and the opportunities they take to do so (Little, 1990).

Since the early 2000 there has also been a focus of study on mentoring conversations as pedagogies for developing both student teacher and mentors' competencies. Timperley (2001) reports on a training programme in New Zealand designed around mentoring conversations. Analysis of 22 audio-taped transcripts of feedback conversations between mentors and their student teachers revealed that before training a common pattern of the conversations was practical tips delivered by the mentor-as-expert to help the student teacher overcome practical problems. After training, mentors exhibited more openness to share their concerns and to engage student teachers in reasoning about their personal theories, in an effort to arrive at joint solutions. Strong and Baron (2004) analyzes 64 conversations between 16 veteran teacher mentors and their beginning teacher protégés in the United States. The study focuses on how mentor teachers make pedagogical suggestions to beginning teachers during mentoring conversations and how beginning teachers respond using a cognitive coaching model. The analysis reveals that the cognitive coaching model, indeed, surfaced mentors' avoidance of direct advice through the use of indirect suggestions aimed at encouraging novice teachers to produce elaborated responses. Drawing on observation data from two American and two Chinese mentor-novice pairs in induction contexts, Wang, Strong, and Odell (2004) analyzed the content and forms of mentor-novice conversations about novices' lessons. Findings show that the United States and Chinese mentor-novice interactions were different in focus and form, often opening or restricting novices' opportunities for developing professional knowledge necessary for reform-minded teaching. The differences identified were attributed to the curriculum structures and organization of teaching and mentoring in each country. Drawing on an analysis of group mentored learning conversations, Orland-Barak (2005c) inquires into the nature of a teacher educator-mentor's constructivist pedagogy in the context of a postgraduate course on mentoring in Israel. The study surfaced tensions that reflected the 'competing discourses' that played out between the instructor and participants' discourse. Also situated in Israel, but in the context of in-service education, Orland-Barak and Klein (2005) investigate the meanings that 12 in-service mentors attribute to a mentoring conversation and the extent to which these attributions are realized in their actual conversations in practice. Drawing on visual modes of representation, the study explored the connection between participants' beliefs about mentoring conversations and their actual realization in mentoring conversations. The study revealed that relationships between 'the expressed' and 'the realized' in mentoring conversations are complex, multifaceted, and of a predominantly loosely related nature. In the United States, Urzúa and Vásquez (2008) examined teacher mentoring meetings as spaces for novice teachers to verbalize plans, predict outcomes, consider possibilities, and reflect on their evolving pedagogical practices. Focusing on mentor teachers' use of

supervisory skills during mentoring conversations, Hennissen, Crasborn, Brouwer, Korthagen, and Bergen's (2010) two consecutive studies in the Netherlands used stimulated recall to categorize the contents of interactive cognitions, before and after training in supervisory skills. The results show that after training, mentor teachers demonstrated an increased awareness of their use of supervisory skills, while emphasizing pupil learning during mentoring dialogues (Seaman, Sweeny, Meadows, & Sweeny, 1997).

Even though much has been done in studying this theme, it seems that, as Little (1990) suggests, we still are still challenged to provide answers to the questions: "How do beginning teachers interpret the responses mentors give?" and "how can beginning teachers detect the knowledge that informs mentors' comments?" (p. 318).

Mentoring Through Technology

From the 2000 onwards, a substantial group of studies focuses on mentors' performance and pedagogy. A small but emergent sub-theme is mentoring through technology. Drawing on Shulman's model, Margerum-Leys and Marx (2004) investigate how knowledge is acquired, shared, and used by both student teachers and mentors in mentoring interactions for teaching through technology, in the United States. In the case reported in this study, a student teacher served as a source of content knowledge for her mentor teacher, bringing to the site knowledge of the existence of various technologically infused activities. Focusing on e-mentoring Hunt, Powell, Little, and Mike (2013) a mixed methods study investigated special education novice teachers' competence development as a result of the induction e-mentoring pilot programme in the United States. The study revealed that there were statistically significant differences in levels of basic and advanced teacher preparedness as well as knowledge of standards and law after participation in e-mentoring. However, e-mentoring did not improve teachers' knowledge of individualized education plans or of how to encourage advanced levels of student thinking. Still in the context of mentoring through technology but with a particular focus on math education in Israel, Swan and Dixon (2006) explored the influence of a mentor-supported model of technology training on mathematics teachers' attitudes and use of technology in the classroom. The findings show increased level of accommodation, interest, comfort and confidence with the use of technology in their practice. Focusing on learning to mentor through on line programmes in Canada, Clarke et al. (2012) reports on the development and refinement of an online inventory to help cooperating teachers focus on selected dimensions of their practice. It should be noted that most studies discuss conditions that support technologically-enhanced mentored learning. The most recurrent ones are time for training, planning, and collaboration.

Mentor Performance and Pedagogy: Implications for Policy and Practice

The relatively broad literature on mentor pedagogy and performance outlines important elements which, taken together, can propose a content base for describing successful mentoring pedagogies. These are: Pedagogies that offer the right dose of challenge and risk-taking within supportive school environments; clear induction pedagogies that integrate the school ethos; pedagogies of lesson study that assist teachers in exploring their teaching collaboratively; and utilizing reflective questioning strategies of clarifying and probing responses while taking a non-judgmental stance. Successful mentoring pedagogies also speak to issues of ethics, to student-centeredness, to constructive feedback and to careful and empathetic listening with the right combination between flexibility, demand and support. They also embrace the use of multiple strategies linked to specific pedagogical knowledge practices such as planning and co-planning for teaching, verbal reflection on planning, providing concrete examples of teacher planning and working with technologically enhanced pedagogies that foster collaboration.

The Context of Mentoring: Contexts, Policy and Programmes

This last section focuses on the study of mentoring as related to contextual factors, to policy issues and to programmatic aspects. Although the importance of attending to context is addressed in almost all the studies reviewed, it was surprising to discover that actually so few actually foreground this theme as a topic for research.

Mentoring Programmes

The [mentor program] may be described as an effort to retain skillful teachers and to improve teaching by promoting direct, rigorous, and consequential activities and relationships between mentors and other teachers. The [studies] asked whether and how district efforts to implement the mentor program promoted those activities and relations. (Shulman et al., 1985, p. 2, in Little, 1990)

The articles in this category appear from the late 1990s onwards. A group of articles analyzes existing mentoring programmes in an effort to suggest unifying frameworks for classifying and mapping mentoring programmes. Gay and Stephenson (1998) classify mentoring programmes to suggest a template for the identification of different mentoring projects in England. In the United States context, Kajs (2002) describes a situational mentoring framework for developing a successful mentoring programme, focusing on four major components of any mentoring process: mentor selection, mentor and novice teacher preparation, support teams and accountability. Wang and Odell (2002) analyze the literature on mentored learning to teach in the context of the standards reform movement. The analysis suggests that the assumptions underlying mentoring programmes are not always focused on

standards but on emotional and technical support. It also suggests that mentoring practices increase novices' retention but do not always support their learning to teach in reform-minded ways. Grossman and Davis (2012) review of research suggests that essential conditions for successful and effective mentoring programmes need to consider high-quality mentors, to focus on improving instruction, and on the necessary allocated time. School administrators are seen to play a key role in structuring effective mentoring programmes and in creating a school context for developing such programmes. To be effective, the study concludes, mentors require training and ongoing support to develop specific skills in assisting new teachers. Furthermore, they point out, when new teachers are paired with highly trained mentors, the pace of new teacher learning increases.

Drawing on a survey and interview data from 57 first-year mathematics teachers from 11 districts in the United States, Desimone et al. (2014) focuses on differences in the characteristics of formal and informal mentoring. Their findings suggest that informal and formal mentors often exhibit similar functions and often complement each other in supporting new teachers. Based on these findings, they identify a set of policy recommendations to improve new teacher supports. Focusing mentoring models geared specifically to connect between theory and practice, Tang and Choi (2005) study two mentor preparation programmes in Hong Kong. The study addresses how the theory-practice connection model contributes to the construction of professional knowledge in mentoring and the development of mentoring practices in schools. It was found that the organization of curriculum components, such as coursework and structured practical work in mentoring, facilitated the connection of theory and practice during mentoring. Mentor school teachers also exhibited developed competence in mentoring as they integrated research-based knowledge and practical knowledge in their work with student teachers. Rodgers and Keil (2007) describes the successful undertaking of bottom-up reforms within larger systemic constraints, in the context of an alternative student teaching supervision model in the United States.

Mentoring Within and Across Contexts

Investigating mentoring contexts as a main research focus, Wang (2001) explores the relationship between contexts of mentoring and mentoring practice for 23 United States, United Kingdom, and Chinese mentor teachers. Through comparative analysis, it suggests that mentoring practices show greater differences across programmes and countries than within, even in cases where mentors are practicing a kind of teaching as expected by education reformers. The authors identify three instructional contexts in each setting that shape such differences: structure of school curriculum and assessment, organization of teaching and mentoring, and student population. Their findings illuminate on the influences of instructional contexts on mentoring and the kinds of learning opportunities that mentoring creates for novice teachers in different contexts. Studying the context of partnerships in England, Brookes (2005) considers the strengths and weaknesses of a graduate teacher

programme aimed to strengthen the existing partnerships by improving the quality of school-based tutor training and continuous professional development of the staff. Three articles deal specifically with conceptualizations of mentoring contexts. In a recent review of mentoring as the mediation of professional learning Orland-Barak (2014) presents a synthesis of studies published in *Teaching and Teacher Education* on mediation in mentoring. The three distinctive domains identified for the 31 studies (mentors' performance and behaviors, mentors' reasoning, beliefs and identity formation and the place of culture, context and discourse in mentoring) run parallel and cross geographical areas, periods, and contexts of pre-service and in-service education.

Mentoring and Policy

Focusing on political aspects of policymaking, Hamel and Jaasko-Fisher (2011) argues that mentoring reflects a form of hidden labor within pre-service teacher education. Drawing on discussions from an American mentor teacher advisory council, the article surfaces marginalized aspects of mentors' work. The findings reveal problems of initiative, complications in determining teaching opportunities, and dilemmas of positions adopted by mentors during transitions in authority. Colley (2002) discussed mentoring as a favored policy initiative in a number of countries. The article discusses mentoring policy both for professional development but also for addressing social exclusion. Analyzing the literature from a feminist deconstructionist perspective, the review identifies four distinct historical stages in mentoring s development, suggesting that official concepts of mentoring have shifted from dominant groupings reproducing their own power, to subordinate groupings reproducing their own oppression. Exploring the concept of 'mandated mentoring' in the United States, Mullen (2011) demonstrates how mentoring can be used as a vehicle for practical change and offers possible solutions to preferable mentoring in a public school setting. In the context of Scottish initial teacher training, Cameron-Jones and O'Hara (1995) describe a case study that gives evidence to outcomes of a national policy change regarding expanding schools' responsibility and increasing working demands from mentors.

The Context of Mentoring: Implications for Policy and Practice

The few studies identified on connections between mentoring and contextual factors (such as policy issues and programmatic aspects of a particular setting) all underscore the necessity to attend to context when thinking about effective and successful mentoring practices. This is also a major challenge for future study and conceptualization of the differences between mentoring student teachers in pre-service education and novices and experienced teachers at in-service levels. In the context of pre-service education, the few studies in this area suggest that mentoring practices increase novices' retention but do not always support their learning to teach in

reform-minded ways, due to a lack of attention to how conditions of the context shape their learning. Furthermore, variation across mentoring practices seems to be shaped by three predominant instructional contexts: Structure of the school curriculum and assessment, organization of teaching and mentoring, and student population.

Discussion

Major Shifts and Trends in the Literature

From a developmental perspective, and although prevalent themes keep recurring despite a specific, predominant focus at a particular point in time, studies on mentoring can be summarized as follows.

The 1990s focused mostly on strategies, training on practical skills and competencies, designing induction programmes, ways of assessing mentored learning, observing and supervising teaching activities, assistance through scaffolding subject matter teaching and learning, formal and informal contexts of assistance, and collaboration that occurs in dyadic interactions (Daloz, 1983; Tomlinson, 1995; Wilkin, 1992; Yeomans & Sampson, 1994). From the mid-1990s, there is a surge of publications that emphasize the value of collaborative professional learning for the enhancement of reflective practice, for developing trusting and culturally sensitive relationships, for engaging in team and co-teaching, for creating partnerships, and for developing shared activity (Achinstein & Athanases, 2006; Kerry & Mayes, 1995; Mullen, 1997; Mullen & Lick, 1999; Shulman & Sato, 2006). Important studies focusing on the disciplinary aspects of mentoring, also developed during this period to extend understandings of how subject matter dialogue can assist prospective teachers in scaffolding their learning (Athanases & Achinstein, 2003; Ball, 2000; Edwards & Collison, 1996; Grossman, 1991; Norman & Feiman-Nemser, 2005; Rodgers, 2001). There is also substantial study on how mentors and teacher educators are challenged to use their knowledge of teaching and educational experience to mediate learning 'here and now' in specific situations (Berry, 2009; Koster, Brekelmans, Korthagen, & Wubbels, 2005), or what is referred to as adaptive expertise (Berliner, 2001) and improvisation in mentoring (Orland-Barak, 2010). The last decade of research on mentoring has also gradually become more attentive to dimensions of the practice that pertain to issues of diversity, cultural sensitivity, context and power relations (Kochan & Pascarelli, 2003; Mullen, 1997). There is a small but growing body of publications that attends to ethical and moral considerations and dilemmas, tensions between individual needs and the needs of the system, the place of advanced technology and its ethical implications, and the growing recognition of mentors' formal preparation, particularly within academic learning communities of practice (Craig & Deretchin, 2009; Kochan & Pascarelli, 2003; Miller-Marsh, 2002; Mullen & Lick, 1999; Orland-Barak, 2010; Wang, 2001) (Table 18.3).

Table 18.3 Developmental shifts in the study of mentoring

Early 1990s onward	Mid 1990s onward	Last decade
Mentoring strategies	Collaborative professional learning for the enhancement of reflective practice	Issues of diversity, cultural sensitivity, context and power relations in mentoring
Training on practical skills and competencies	Developing trusting and culturally sensitive relationships	Ethical and moral considerations and dilemmas in mentoring
Designing induction programmes	Engaging in team and co-teaching,	The use of advanced technology
Ways of assessing mentored learning	Creating partnerships, and developing shared activity	Mentors' formal preparation
Observing and supervising teaching activities	Subject matter dialogue to assist scaffolding student teachers' learning	
Assistance through scaffolding subject matter teaching and learning		
Formal and informal contexts of assistance		
Collaboration in dyadic interactions		

Towards Mentoring as a Professional Practice

The shifts and developments in the study of mentoring from the last two decades of the twentieth century and into the sprouts of the twenty-first century underscore its growing professional character, reflecting the emergent 'bigger picture' of clinical practices striving to become recognized as professional practices (Orland-Barak, 2010).

The shifts identified in the previous section suggest a recognition of mentoring as a practice that attends to various measurements of professionalism, such as control of entry into the profession (see sections on the place of context in mentor roles, mentoring preparation, and Learning to mentor), control over working conditions (see sections on conditions that support mentees' learning and on mentoring programmes and policy), alignment between technical aspects of the practice and the social environment in which the practice is interpreted and understood (see sections on mentoring within and across contexts and on the place of context in mentor roles), and consistency in identifying, interpreting and acting on a set of problems (see sections on managing conflicts and barriers and on relationships and mediation) (Glazer, 2008). This implies a growing recognition of the role of the mentor as a professional role that is formally learned (see sections on becoming a mentor: Professional learning and knowledge development), that can be distinguished by its unique competencies and skills (Murray & Male, 2005) and that develops within complex interpersonal and social professional webs (Achinstein & Athanases, 2006; Little, 1990) (see sections on mentoring relationships). Mentors as profes-

sionals are, then, challenged into functioning in critical and moral ways, considering their decisions and subsequent actions in terms of dilemmas that carry moral values (see the section on managing conflicts and barriers). Having said that, a close analysis of the literature at the start of the twenty-first century does not point to drastic or rapid changes towards such a shift.

The Need for Interconnectedness: Towards More Integrative Research Agendas Across Contexts and Settings

The studies reviewed point to a stated recognition of the multiple and varied roles, functions, relationships and outcomes called for in different mentoring interactions and contexts. Said that, most studies focus on local, national contexts in a particular mentoring setting, usually adhering to a discrete domain and mostly relying on case study methodology. Thus, the field is still challenged to create methodological and conceptual connections between the fragmented and discrete pieces, towards a more integrative, conceptually grounded research agenda across contexts and settings. Such a direction that examines how different strands of published studies complement each other can be potentially conducive to better understanding the richness and complexity of mentoring interactions. Specifically, this would imply, for example, juxtaposing competing research lenses to address the same core issues, while exposing complementary, competing and conflicting views. For example, as suggested in a recent synthesis of the literature, evidence grounded in studies that focus on descriptions and interpretations of mentors' thinking processes and identity formation can be juxtaposed with evidence from studies on mentors' performance and behavior (Orland-Barak, 2014). Other lines of interconnection could be for example, examining how role formation and identity connect with knowledge and communicative skills acquisition and development; drawing on findings on the effect of the programme context on mentors' performance and examining this connection empirically in that same context; or examining the specific skills that mentoring programmes promote and how these connect to policy standards and models preferred. The question of how mentoring affects student teacher behavior also deserves more in-depth consideration, as well as how mentored learning affects pupils' learning in class. These two aspects, what mentees learn and what pupils learn from mentoring are loosely represented in the reviewed literature. Creating methodological and conceptual interconnections between the different thematic domains identified in this review allows for elucidating links between internal processes of reasoning and identity formation and external, contextual factors influencing behavior and performance.

Examining mentors' beliefs, knowledge and enacted practices from the above interconnected perspectives has begun to emerge in recent (although still limited) studies (Achinstein & Athanases, 2005; Athanases & Martin, 2006; Cochran-Smith, 2003; Orland-Barak, 2010) (see sections on mentors' knowledge, and on doing

Table 18.4 Mentoring as a professional practice

Criteria in professionalism	Related themes in the review
Control of entry into the profession	The place of context in mentor roles mentoring preparation Learning to mentor
Control over working conditions	Conditions that support mentees' learning mentoring programmes Mentoring and policy
Alignment between technical aspects of the practice and the social environment in which the practice is interpreted and understood	Mentoring within and across contexts The place of context in mentor roles
Consistency in identifying, interpreting and acting on a set of problems	Managing conflicts and barriers Relationships and mediation
A professional role that is formally learned	Mentors' knowledge; Learning to mentor; Contexts for mentoring preparation and development
Complex interpersonal and social professional webs	Mentoring relationships
Carry moral values	Managing conflicts and barriers

mentoring: Mentor performance and pedagogy). For example, these studies examine how mentoring practices are conceived and enacted within complex interactional intersections between personal theories, knowledge and institutional constraints, in different cultural and social contexts (Devos, 2010; Hansen & Simonsen, 2001) (see sections on mentoring relationships, and on mentoring conversations). As Cochran-Smith et al. (2012) contend there is a need to develop more sophisticated interconnected analytical frameworks that reflect complex questions in education such as how teacher education systems respond to policy environments; how initial conditions and interactions within systems mediate teacher candidates' practices and students' learning; or how teacher education systems intersect with gender, race and class inequalities. Their contention definitely holds true for the study of mentoring, a central domain within the teacher education field. The new suggested line of research attends to the call for creating innovative channels of communication that would encourage fields to 'talk to one another', hence, strengthening the 'weak link' of fragmentation in educational research, alluded to at the outset of this review (Table 18.4).

Joining Forces

This review has identified six major domains of study in the literature of Mentoring: (1) Being a mentor: Mentoring roles and functions; (2) Mentoring relationships; (3) Outcomes of mentored learning; (4) Becoming a Mentor: Professional learning and knowledge development; (5) Doing Mentoring: Mentor performance and pedagogy; and, (6) The Context of Mentoring: Contexts, policy and programmes. Although often interconnected, the majority of studies can be positioned in either of these six core thematic categories. Conceptually and methodologically, then, there is still much to be done. The review foregrounds the need for different theoretical frameworks and research strands to join forces in order to attend to the complexity and versatility of the work of mentors. This implies promoting cross-national and international research cohorts that will address the same core questions in different contexts, settings and countries. Notice that out of the 300 studies researched in this review, only one presents international collaborations involving a cohort of different countries (Wang, 2001). Being this review part of the *International Handbook of Research in Teacher Education*, such a missing link should be of particular concern for field in an era of globalization, internationalization and immigration.

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Chapter 19

Exploring the Complex Concept of Quality in Teacher Education

Tom Russell and Andrea K. Martin

- *Teachers teach as they were taught.*
- *Teaching is not the filling of a pail but the lighting of a fire.*
- *Those who can, do; those who can't, teach (Shaw, 1904).*
- *Those who can't teach, teach teachers.*
- *Teaching looks easy; good teaching looks even easier.*

These familiar idioms mask both the complexity of learning to teach and the complexity of the concept of quality in teacher education. Everyone goes to school and learns a great deal about how teachers behave as they teach. Only a few become teachers and discover through personal experience the complexity of teaching a group of unique individuals of similar age. Even fewer become teacher educators. Nevertheless, everyone has ideas and opinions about the meaning of quality in education generally and in teacher education in particular.

Teaching (and by extension, teaching people how to teach) is an extraordinarily difficult form of professional practice that looks easy (Labaree, 2005, p. 188). Zeichner (1995) also framed the issue clearly and succinctly:

We all know that both teaching and teacher education are much more complex than they are often made out to be. We ought to let our stories about our work as teacher educators appear to others to be as complex as they really are. (p. 21)

Those who work in schools and in teacher education programmes are often restricted by institutional constraints and by policymakers' edicts long embedded in a tradition of stability. Teacher educators do their best in a complex set of circumstances. Classroom teachers do their best to share experience and provide guidance to those who are learning to teach. Supervisors from the university do their best to provide advice and support. Those learning to teach do their best to make sense of two very different types of learning—familiar classes and lectures in colleges and

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universities, and unfamiliar school placements where performing [reference] in front of students can be a major challenge. All these good intentions are expressed against the backdrop of a society that generally undervalues teaching and teacher education, often viewing learning to teach as easy and teaching others to teach as even easier (Labaree, 2005, p. 187; Sarason, 1996). Darling-Hammond (2008) put it bluntly:

Public dissatisfaction with schools has been coupled with dissatisfaction with schools of education as well. Education schools have been variously criticized as ineffective in preparing teachers for their works, unresponsive to new demands, remote from practice, and barriers to the recruitment of bright college students into teaching. ... Voices of dissatisfaction have been raised from within the profession as well. (p. 333)

Definitions of the word *quality* provide a useful starting point. Oxford Dictionaries (online) defines quality as, “The standard of something as measured against other things of a similar kind; the degree of “excellence” of something.” The Merriam-Webster online dictionary defines quality with phrases such as “degree of excellence” and “superiority in kind.” Dictionary.com describes quality as, “character with respect to fineness, or grade of excellence.” Common to all three definitions is the phrase *degree of excellence*. Accordingly, we focus on the issue of achieving excellence in programmes of teacher education.

We found valuable guidance in the analysis of quality in teaching by Fenstermacher and Richardson (2005). They offer these perspectives:

Quality teaching is what we are most likely to obtain when there is willingness and effort on the part of the learner, a supportive social surround, ample opportunity to learn, and good practices employed by the teacher. (p. 191)

Quality teaching is often assumed to be simply successful teaching, wherein the learner learns what the teacher teaches. Yet we have seen that when successful teaching is disconnected from good teaching, the results are seldom favorable for either the student or the subject matter under study. When quality teaching is understood as an integration of both good and successful teaching, it quickly becomes apparent that more than good teaching is required to realize the goal of quality in teaching. (p. 192)

It is well to remember Pirsig’s (1974) conception of quality: “People differ about Quality, not because Quality is different, but because people are different in terms of experience” (p. 250). (p. 209)

Their comments speak to quality in teaching, but the concept of quality in a programme of teacher education must consider not only quality in teaching but also quality within a programme that includes many different elements and experiences. Pirsig’s insight may be one of the more helpful as we consider how complex the concept of quality (or degree of excellence) can be when applied to initial or preservice teacher education. In reviewing the literature on quality in teaching, one is more likely to find quality defined with reference to teachers’ characteristics, academic ability and achievement, and certification and testing. Empirical research has focused on the quality of those who enter teacher education programmes (SAT, ACT, GPA, academic major, etc.) and on the quality of learning by the students taught by those who complete teacher education programmes (Zumwalt & Craig,

2005, 2008) yet there is little research that addresses the quality of what happens within teacher education programmes. As Pirsig (1974, p. 250) suggested, quality is often in the eye of the beholder and can be judged from many different perspectives. In this chapter we focus on qualitative considerations of quality in teacher education.

Outline of the Argument

What is quality in teacher education, why is it so elusive, and what are the major challenges? We begin with issues that illustrate the sheer complexity of the concept of quality when considered in the context of initial teacher education. Three fundamental challenges to achieving quality in teacher education are examined: the problem of the apprenticeship of observation, the problem of enactment and the problem of complexity (Darling-Hammond, 2006). We then identify three additional challenges: dissonance and the problem of drift; resistance as a barrier to quality; and, cultural barriers to achieving quality.

The argument continues with a focus on quality as the four major players who interact in complex ways and in various contexts during programmes of teacher education may perceive it:

1. The individual learning to teach (teacher candidate)
2. The individual who receives a teacher candidate into a school classroom for practicum experience (mentor teacher)
3. The individual who visits and observes a teacher candidate on behalf of the programme in which the teacher candidate is enrolled (faculty supervisor)
4. The individual who teaches teacher candidates in a recognized programme leading to certification as a teacher (teacher educator).

Most but not all programmes of initial teacher education are based in post-secondary institutions, here generically referred to as universities.

Each of these individuals plays a significant and significantly different role in a programme of teacher education. The four different roles lead to at least four different interpretations of the meaning of quality in initial teacher education.

We continue the development of our argument by presenting the voices of a number of individuals who have spoken directly to the issue of quality or excellence in programmes of teacher education. These voices are presented in a series of text boxes that provide data and illustrations drawn from the context of our own qualitative research in a teacher education programme. Before concluding the argument we explore perspectives that could help to achieve greater quality in programmes of teacher education: listening to those learning to teach; searching for quality learn-

ing; fostering metacognition and learning from experience; promoting knowledge integration; and, connecting epistemology to the challenge of quality.

Just How Complex Is the Issue of Quality in Initial Teacher Education?

Worthy (2005) tells the story of a Grade 5 teacher who barely survived his first year of teaching but went on to become a successful teacher. He told her that those who are learning to teach need to see the reality of teaching, including classrooms that are chaotic: “You can’t see anything when you observe someone who can manage their class effectively. Nothing is going to go down” (p. 392). One of the key elements in the issue of quality is the tension that those learning to teach experience between teacher education courses and practicum experiences. In his fifth year of teaching this teacher offered the following statement of the tension:

Here’s the problem. We watch our CTs [cooperating teachers] manage the classroom and we listen to our professors telling us *how* to do it. So one *does* and the other *says* and they’re usually so different. If you’re going to tell us what to do you have to be willing and able to show us. The theories sound right, but if we don’t have a model of them in action, if our CT does something different and we see it working, guess what we’re going to do? (p. 392)

This tension between courses and practicum experiences identifies a fundamental source of complexity in teacher education: Teacher educators are often expected to be able to *do* theory as well as *tell* theory.

Korthagen (2001) described the theory-practice tension as a major contributor to the complexity of initial teacher education:

Studies into teacher development and teacher socialization show that [often there is] little transfer from theory to practice. Elliott (1991) states that teachers who realize they are unable to use the theory presented to them by experts often feel they fall short of living up to the expectations these experts seem to have of their capabilities. Elliott (1991, p. 45) says that, “teachers often feel threatened by theory” and these feelings are enhanced by the generalized form in which experts tend to formulate their knowledge and by the ideal views of society or individuals behind their claims. (Korthagen, 2001, p. 4)

What applies to teachers similarly applies to those learning to teach, while also providing insight into the criticisms frequently directed to teacher education programmes:

Even if student teachers rationally understand the importance of theory as a means to support practice, they soon experience that they are not the only ones struggling so much with everyday problems in their classrooms that the whole idea of applying theory becomes an impossible mission. They see the same phenomenon everywhere around them in their practice schools. The only way out of the feeling of always falling short is to adapt to the common habit of teachers to consider teacher education too theoretical and useless. Then they can no longer be blamed for not functioning according to the theoretical insights; but teacher education can be blamed. It will be clear that this social game of positioning guilt with the other, too often played by teachers and their educators, is a power game with few

positive outcomes. Elliott (1991, p. 47) concludes: “The perceived gap between theory and practice originates not so much from demonstrable mismatches between ideal and practice but from the experience of being held accountable for them.” (Korthagen, 2001, p. 5)

Feiman-Nemser and Remillard (1996) set the issue of quality in the context of familiar views that fail to consider what meaning teacher candidates take from their various learning experiences. They framed the challenge thoughtfully in the following words:

We have separated the “what” from the “how” of learning to teach in order to focus on the question of what teachers need to learn. Ultimately, content and processes of learning to teach must be brought together, since how teachers learn shapes what they learn and is often part of what they need to know. Unfortunately, we know even less about the processes of learning to teach than we do about the content. (p. 78)

Conventional teacher education reflects a view of learning to teach as a two-step process of knowledge acquisition and application or transfer. Lay theories assume that learning to teach occurs through trial and error over time. Neither view captures the prevailing position that learning occurs through an interaction between the learner and the learning opportunity. If we want to understand how and why teachers learn what they do from a given learning opportunity, we have to investigate both what the experience was like and what sense teachers made of it. (Feiman-Nemser & Remillard, 1996, pp. 79–80)

Quality in teacher education will remain elusive until we move beyond practices grounded in “learn first, then apply” or learn by trial and error.

As Feiman-Nemser (2001) subsequently noted, the challenges to achieving quality begin in pre-service programmes and continue beyond:

The problems of preservice preparation, induction, and professional development have been documented. The charge of fragmentation and conceptual impoverishment applies across the board. There are no connective tissue holding things together within or across the different phases of learning to teach.

The typical preservice program is a collection of unrelated courses and field experiences. Most induction programs have no curriculum, and mentoring is a highly individualistic process. Professional development consists of discrete and disconnected events. Nor do we have anything that resembles a coordinated system. Universities regard preservice preparation as their purview. Schools take responsibility for new teacher induction. Professional development is everybody’s and nobody’s responsibility. (p. 1049)

Thus developing “connective tissue” is one of the many challenges to achieving quality in teacher education. While many mission statements proclaim coherence, it is not enough to leave integration of programme elements to the individual learning to teach.

Goodlad (1990) has pointed to the irony of teacher education programmes repeating the very practices that they criticize, thereby perpetuating the gap between theory and practice and notes that, “We found little intellectual wave-making in the programs we studied. The very listening, responding to questions, and participating in teacher-directed discussions that go on in schools ... characterized almost all or most teacher education programs” (p. 265). Teachers’ own school experiences were the determinants of their teaching. Goodlad continued with these words:

In general, students in teacher education programs did not see teaching as “deliberate action”; they did not think in terms of the ability to use knowledge to inform their actions.

“Instead, they seemed to be trying to squirrel away as many specific solutions and techniques as possible against the challenges to come” (Barnes, 1989, p. 19). The rush to cram it all into the limited time available in teacher education programs appeared to abort the emergence of sustained inquiry and reflection. (p. 265)

This conclusion indicates that reducing complexity and enhancing quality in teacher education call for, “sustained inquiry and reflection.” In a similar vein, Segall’s (2002) study a decade later raised concerns about the, “two-step process” (Feiman-Nemser & Remillard, 1996) of separating knowledge acquisition from knowledge use: “The kind of educative process provided in teacher education will determine whether the understandings student teachers arrive with are also those with which they depart” (p. 165). For education to be more and do more, “than it does, teacher preparation cannot assume that either will materialize by providing preservice students educative experiences that reproduce what most teacher education programs believe must be changed in public education” (p. 165).

Housego’s (1994) study of teacher candidates’ perceptions of how well they were prepared to teach identified a gap between teacher educators in traditional programmes of teacher preparation in universities and mentor teachers in schools, suggesting a lack of collaboration between two major players in teacher education. This study concluded that teacher educators often see research-based rigour as a fundamental basis of initial teacher education. Accordingly, they, “may be loath to endorse feedback from program graduates to guide their work” (p. 371). Teachers and teacher candidates alike applaud that which is perceived to be practical.

Inexperienced teachers’ perceptions of the role of theory in their daily teaching range from, “if only I had time to think about it” to, “the theory learned in training is impossible to put into practice” (Carré, 1993, p. 201). An oft-repeated refrain of teacher candidates says that there is too much theory in university courses and that *real* learning takes place in *real* classrooms during practicum experiences. Consider the responses of two participants in Segall’s (2002) ethnographic study of the perspectives of six teacher candidates in a social studies methods course:

We learned so much more in the short practicum than we did in the whole semester at [the university] ... The first semester of this program is just all theory and we need to get more practical. Until we get more practical in the program, the theory will still just be a washout. (p. 155)

No real learning takes place, I think, until you get into your practicum ... [Instead of] just getting bombarded with all this theory [at the university], I think we should spend more time in the schools so we can apply that theory and so it can become more relevant. ... I mean, you need to learn by experience. (p. 155)

In the absence of classes that model the integration of practice with theory, it is not surprising that those learning to teach may turn away from theory and seek more practicum experience in schools. This would be an unfortunate mistake. Quality in teacher education requires teacher educators to find that middle ground between a two-step (theory first, then practice) process and learning by trial and error.

Thus far our goal has been to provide a range of illustrations of the complex nature of initial teacher education and thus the complex nature of efforts to achieve quality and to understand what quality is in teacher education and why it is so elusive. These illustrations help to make it clear that there are fundamental tensions between the perspectives of those learning to teach and the perspectives of those

who try to help them learn to teach. Insights into this complexity come in the following section, which begins an analysis of fundamental challenges to achieving quality.

Three Fundamental Challenges to Quality in Initial Teacher Education

Darling-Hammond identifies three fundamental problems associated with learning to teach, and each of these problems is a significant barrier to achieving quality in teacher education.

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.” (Darling-Hammond, 2006, p. 35)

In turn, we consider each of these challenges to achieving quality.

The Apprenticeship of Observation

Lortie (2002) used the phrase *apprenticeship of observation* in his insightful sociological study of teachers in schools. This phrase serves as shorthand for the tacit knowledge of teaching that is developed (unintentionally and unavoidably) by everyone who attends school. From a teacher education perspective, the phrase points to the fact that each person preparing to teach in a school already has extensive knowledge of what teachers do in classrooms, but little understanding of the professional and personal reasoning behind those actions. Teachers are often encouraged to attend carefully to students’ prior knowledge. Extending the same expectation to teacher educators compels us to ask: *Are we attending carefully to what our students already know, as we prepare them for practicum experiences and as we help them identify what they learn from experience?* What teacher candidates already know about teaching enables them to begin to act like a teacher, yet they may be quite unaware of what they know and how they learned it (by observation).

Brought to our attention again by Darling-Hammond (2006), the apprenticeship of observation is as apparent in the actions of teacher educators as it is in the actions of those learning to teach. At every level of teaching, we all tend to teach as we were taught. 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 to preservice teacher education, as well as the promise of viewing teaching as a discipline (Loughran & Russell, 2007; Martin & Russell, 2009): “To develop a disciplined view of teaching, teacher educators must help students of teaching confront what they inadvertently learned from their own schooling experiences in order to understand how differently teaching appears when viewed as a discipline” (Loughran & Russell, p. 222).

Segall’s (2002) study of teacher candidates reported comments that illustrate how the apprenticeship of observation can generate assumptions about learning to teach that many are unaware of:

We’ve seen what teaching is like. We’ve had 16 years of it, at least, up to this point. Now we want to know how to do it. [We say to ourselves,] “How am I going to control a class of 32 kids and make them learn what I’m asked to make them learn?” So I think we are working with the model of teaching, that, at some level, we’re not really actively thinking about. We’re working with this model of teachers that we have had in the past [and we say:] “I’m going to do what they did. All I need to know are the tools they used to do that.” (Segall, p. 158)

Here we see that the apprenticeship of observation is a powerful source of teacher candidates’ assumption that what they need to learn is confined to practical tools and resources.

The problem of the apprenticeship of observation spills over into the problem of enactment, which is our next topic: “Learning how to think and act in ways that achieve one’s intentions is difficult, particularly if knowledge is embedded in the practice itself.” Much information “best emerges in the actual work of teaching—and guides the planning and instruction that follows” (Darling-Hammond, 2006, p. 37). “Novices bring their own frames of reference to the ideas they encounter in teacher education; these may be incompatible with the approaches they are learning about in their coursework and clinical work” (p. 38).

The Problem of Enactment

On the London Underground, the simple phrase *Mind the gap* cautions riders to take care when stepping from the carriage to the platform at stations where the gap is unusually large. In preservice teacher education, we commonly speak of a gap between theory and practice, between what teacher candidates are told to do and what they actually do when they begin their practicum teaching. Teacher educators and teacher candidates alike tend to speak about the theory-practice gap (Nuthall, 2004) and the difficulties of putting theory into practice, as many have noted: “Teacher education programs constantly attempt to overcome the barrier of practice; the debate about the relationship of practice to theory and theory to practice continues” (Pinnegar, 1995, p. 56). Another teacher educator explained, “how she reconciles the theory-practice divide in her own work by helping her students understand and resolve this conflict in their own education” (Guilfoyle, Hamilton, Pinnegar, & Placier, 1995, p. 36). We have come to see such familiar language as

significant but potentially misleading. We see two gaps that we as teacher educators ignore at our peril if we are seeking quality; one is an action gap, and the second is an experience gap.

The Action Gap

We see this as the gap between what teachers think and hope they are doing (what they planned to do, what they intended their students to learn) and what their students actually perceive them to be doing (what the students actually did learn). This is also the gap between what teacher educators think they are teaching and what teacher candidates are actually learning. To illustrate, consider what one teacher candidate in the Queen's University programme described as *appeasement vs. engagement* in considering the quality of pre-service teacher education courses. A teacher candidate made the following comment after a particularly frustrating experience of the action gap:

Just returned home from a presentation on topic Z by a Fine Arts major turned Grade 8 teacher who highlighted all sorts of ways to bring topic Z into your lessons in English, Arts, History, etc. Unfortunately, this was all irrelevant for a Math/Physics teacher. ... I think this is a huge problem with courses here at Queen's. Far too many courses are considered entertaining, but very few actually offer any practical (or even theoretical) benefit to our teaching. Everyone finds classes either enjoyable or unbearable, but for the enjoyable ones, it wasn't because they learned anything. It was because the class was not unbearable. Rather, they got a few laughs or saw an entertaining video. This type of teaching isn't engagement; it is appeasement. They are making us happy while we put in time. It is very frustrating. (J.G., e-mail message, January 11, 2010)

This teacher candidate put into words a perspective that many others have hinted at in a series of year-end interviews (Martin & Russell, 2005). Loughran (2006) captured concisely the action gap that teacher educators face in the pursuit of quality:

Teacher Education should be a place where the breakthroughs and insights of knowledge and practice in teaching and learning are immediately applicable and constantly questioned and tested. ... Teacher educators carry a heavy responsibility in what they do, how they do it and the manner in which they come to know and develop their own professional knowledge and practice. (p. 14)

The Experience Gap

Teacher educators have considerable teaching experience (often in elementary and secondary schools but also in their teacher education courses), while teacher candidates have little or no experience of teaching (but *vast* experience as students, watching what teachers do). It is critically important to be attentive to this huge difference in experience.

Even if teacher candidates lack experience, that does not mean they are blank slates with respect to teaching. They know what teachers do typically and routinely, even if they do not know why. Images of teachers at work are far more powerful than words spoken by teacher educators.

The biggest resource available to teacher educators is the teaching we do in our teacher education classrooms. I suggest that it is in our teacher education classrooms, not in school practicum classrooms, that candidates must learn to see how (our) teaching affects (their) learning—and thus *learn to think pedagogically*. (Russell, 2014, p. 175)

Finally, as we work at minding these gaps, it is also important to remember “the curse of knowledge,” a phrase developed in *Made to Stick: Why Some Ideas Survive and Others Die*. Heath and Heath (2007) described the curse of knowledge in these terms:

Once we know something, we find it hard to imagine what it was like not to know it. Our knowledge has ‘cursed’ us. And it becomes difficult for us to share our knowledge with others, because we can’t readily re-create our listeners’ state of mind. (p. 20)

The pursuit of quality in teacher education requires careful attention to the curse of knowledge embedded within the experience gap.

The Problem of Complexity

Teaching may look easy to students but, as teachers and teacher educators know, it is enormously complex. Cochran-Smith (2003, p. 4) stated it succinctly: “Teaching is unforgivingly complex.” Loughran (2006) elaborated the point clearly:

Lack of recognition [of the complexity of teaching] can reinforce the notion of a theory-practice gap and detract from other conceptualizations of teaching implicit in the real working knowledge and skill of the expert pedagogue. Combined with transmissive views of teaching and learning, it is not difficult to see how some may equate teaching with simply doing rather than seeing teaching as being carefully structured, thoughtfully created and deliberately informed in order to engage students in learning for understanding; as opposed to learning by rote. (p. 15)

Those learning to teach are guided automatically by images of teaching learned through the apprenticeship of observation. The sooner we help them see that they already know a great deal about how to teach and that it will be hard to change patterns acquired from years of observing one’s teachers, the sooner we and they can begin to work together to help them develop their teaching skills. Just as school classrooms are complex, so are teacher education classrooms. For experienced teachers and experienced teacher educators, it may be even more difficult to change how we teach.

A specific example helps to illustrate both the complexity of teaching and the challenge of enactment. Knight (2004) drew on more than 20 years of research on the teaching of university physics to offer “five easy lessons” that are powerful but hardly easy. These are his recommendations to first-year university physics teachers:

1. Keep students actively engaged and provide rapid feedback.
2. Focus on phenomena rather than abstractions.
3. Deal explicitly with students’ alternative conceptions.
4. Teach and use explicit problem-solving skills and strategies.

5. Write homework and exam problems that go beyond symbol manipulation to engage students in the qualitative and conceptual analysis of physical phenomena. (pp. 42–44)

Notice how these suggestions differ from everyday images of teaching. Each of the five suggestions calls for a teaching practice that is significantly different from the practices that many of us experienced in schools. Each calls attention to an aspect of the complexity of teaching—engagement, feedback, phenomena, alternative conceptions, problem-solving and conceptual analysis. Loughran (2006) summarizes clearly the problem of complexity:

Because schooling has been such an integral part of most people’s formative years, there is a sense of familiarity with what teaching looks like and how it is done. ... This view of teaching [as delivery of information in an entertaining way] ignores the complexity of the interaction between teaching and learning. Most of this complexity is not immediately apparent to observers of teaching because they do not hear what the teacher is thinking or do not recognize the way a teacher’s experience influences what they know about how to best do their job. (p. 218)

Additional Challenges to Achieving Quality in Initial Teacher Education

While we see the issues raised by Darling-Hammond as fundamental, we have identified three additional challenges facing those who are attempting to improve the quality of teacher education programmes. We begin by exploring various types of dissonance, which can be either positive or negative. We also consider how student resistance and some fundamental features of culture can act as barriers to quality in teacher education.

Dissonance and the Problems of Change and Drift

Cognitive dissonance helps to explain why teaching is so hard to change. Tavis and Aronson (2007) offer many engaging examples of a very human trait captured by the term *cognitive dissonance*. Yes, teaching is complex; changing teaching is even more complex. Our innate tendency to give more weight to evidence that supports our existing beliefs and our recently made decisions helps us to understand why teaching and learning are so stable; teachers and students alike are driven to reduce cognitive dissonance, with the result that the familiar tends to be preferred over the novel and unfamiliar.

We find it helpful to compare what Tavis and Aronson describe as our hard-wired responses to cognitive dissonance with the socially learned behaviours associated with *single-loop learning*, as developed in a number of works by Argyris and Schön. The following statements are taken from *Theory in Practice* (Argyris & Schön, 1974):

- We thought the trouble people have in learning new theories of action may stem not so much from the inherent difficulty of the new theories as from existing theories that people have that already determine practice.
- We wondered whether the difficulty in learning new theories of action is related to a disposition to protect the old theories-in-use.
- Blindness to incongruity between espoused theory and theory-in-use may be culturally as well as individually caused and maintained.
- In such cases, reeducation has to begin with an attempt to specify the patterns of existing theories-in-use. (p. vii)

These statements indicate some of the consequences of single-loop learning, the everyday pattern of learning that resolves problems quickly without considering underlying governing variables and ignoring gaps between intentions and actual outcomes. It is easier to ignore dissonance than to seek it out and deal with it.

While dissonance can be valuable when it is deliberately created to challenge prior beliefs and existing perceptions, dissonance can be destructive when it arises unintentionally and when teacher educators are unaware of it and do not actively listen for and respond to its effects. Breault (2004, p. 851) has extended our understanding of dissonance by identifying four major types of dissonance:

Purposive dissonance: Do the various programme elements interact harmoniously?

Is it clear why assignments are given and what purposes they will achieve?

Axiological dissonance: What is the value of investing so much time and effort in the non-practicum elements of our programme? (Practicum time seems to be valued without question, while courses and their assignments are often challenged when such dissonance is recognized.)

Perceptual dissonance: Do the students and teacher educators in a programme share perceptions of the purpose and value of various activities and assignments? Are students or teacher educators aware of their colleagues' perceptions of purpose and values?

Contextual dissonance: Does the context in which activities are carried out support or undermine the value and declared purposes of the activities themselves? (p. 851)

These four types of dissonance are helpful reminders of the many ways in which preservice teacher education programmes can *drift* from their intended goals. Most teacher education programmes involve an array of diverse courses taught by an array of diverse teacher educators; the potential is high for unintended dissonance arising from conflicting messages. The value of many programme elements (other than the practicum) is not necessarily self-evident to those learning to teach, and neglecting this reality can have unfortunate consequences. Activities need to be supported by the contexts in which they are situated, and contexts such as the practicum are not always under the control of the teacher education programme. Dissonance is an indicator of issues that preservice teachers need to resolve if they are to understand their preservice programme experiences and their own learning. Dissonance within teacher education programmes is a major challenge to developing perceptions of quality.

Resistance as a Barrier to Quality

Bronkhorst, Koster, Meijer, Woldman, and Vermunt (2014) have studied the resistance of some who are learning to teach to the pedagogies they experience in teacher education programmes. We are intrigued by the implications for improving quality:

We should consider attuning our pedagogies to support the experiences of discontinuity that may result from [students' apprenticeship of observation] ... Our results draw attention [to] the potential of exploring and thereby exploiting resistance in the process of learning to teach. Instead of trying to overcome student teachers' resistance, or turning away from it, we propose that educators turn toward it. For educators, engaging in resistance can be informative to understand the complexity of their student teachers' learning processes better, whereas for students engaging in resistance can entail assuming or extending agency of their own learning. Therefore, for both educators and students the potential implications of resistance, destructive or constructive, seem too significant to forsake. (p. 81)

We are intrigued by the suggestion that teacher educators should turn toward rather than away from resistance expressed by teacher candidates who are seeking the highest possible quality in their programme, with a view to becoming the best possible teacher. Seeing students' resistance as a way of becoming agents for higher quality in their learning experiences turns an initially negative stance into a potentially productive one.

Cultural Barriers to Achieving Quality

Sarason (1996) wrote passionately about *the culture of the school and the problem of change* for most of 30 years; ultimately, he abandoned hope that we will ever overcome "the system," which is so much bigger than any one individual or group of individuals. Here he states:

The school is, in a social and professional sense, highly structured and differentiated—a fact that is related to attitudes, conceptions, and regularities of all who are in the setting. Teaching any subject matter, from this viewpoint, is in part determined by structural or system characteristics having no intrinsic relationship to the particular subject matter. If this assertion is even partly correct, any attempt to change a curriculum independent of changing some characteristic institutional features runs the risk of partial or complete failure. (p. 53)

Nuthall (2004) provided a complementary perspective on the relationship between school culture and quality by emphasizing the importance and complexity of knowing what students are thinking, in schools and in teacher education programmes. He writes:

I believe that the professional knowledge base that is most needed to improve the quality of teaching and teacher education is knowledge about the ways in which classroom activities, including teaching, affect the changes taking place in the minds of students: what students know and believe and what they can do with their knowledge ... This is not all that teachers need to know, but it is at the core of what they need to know and of what should be included in teacher education and professional development programs. Influencing student minds, directly and indirectly, is the primary purpose of teaching. (p. 295)

The cultural challenge for achieving quality in teacher education involves understanding how the programme in which preservice teachers are enrolled influences their minds and their practices.

Decades ago, Zeichner and Tabachnick (1981) posed the question: “Are the effects of university teacher education ‘washed out’ by school experiences?” Their paper is often cited as suggesting that their answer to the question was positive, that the effects of university teacher education are washed out by school experience. Careful re-reading indicates that this interpretation misses their point: that teacher education in fact offers little in the first instance that could be washed out by school experiences. When we seek to understand quality in teacher education, we must be attentive to the culture of schools generally and to the culture of teacher education particularly. Segall (2002) framed the challenge with these words:

Because prospective teachers are not invited to critically examine the underlying assumptions in educational conventions and practices (Kincheloe, 1993), they tend to ignore not only how those aspects impact their own education as students but also how they will structure their own classrooms in the future. As a result ... student teachers become more interested in learning how to perform expected actions than in analyzing those actions or the expectations that generate such actions. (p. 159)

These quotations remind us of an important feature of culture: it is often invisible. As fish may be unaware of the water in which they swim, so humans are often unaware of the air around them or the culture in which they live. We include culture in our discussion of challenges to quality in teacher education because any effort to make changes to improve quality must attend to the culture in which changes will occur.

Critics of schools and teacher education programmes often refer to the need to engage students in learning that is described as productive, effective, even powerful (Darling-Hammond et al., 2008). These words help to describe what we see as features of quality in initial teacher education programmes. Feiman-Nemser (2001) provides an overall picture of the many challenges confronting those who share this vision of quality:

If we want schools to produce more powerful learning on the part of students, we have to offer more powerful learning opportunities to teachers. Conventional programs of teacher education and professional development are not designed to promote complex learning by teachers or students. The typical preservice program is a weak intervention compared with the influence of teachers’ own schooling and their on-the-job experience. “Sink or swim” induction encourages novices to stick to whatever practices enable them to survive whether or not they represent “best” practices in that situation. (pp. 1013–1014)

As the authors we have cited indicate, culture is a complex variable within which programmes of teacher education are enacted. Like students’ prior knowledge, culture is easily ignored, but those who seek quality in teacher education ignore it at their peril: “We all interpret behaviours, information, and situations through our own cultural lenses; these lenses operate involuntarily, below the level of conscious awareness, making it seem that our own view is simply ‘the way it is’” (Delpit, 1995, p. 151).

We have identified some of the many challenges to quality in teacher education: the apprenticeship of observation, the problem of enactment, the problem of complexity,

various types of dissonance, student resistance, and cultural barriers. We turn now to considerations of the roles of the four major players in programmes of teacher education. In the next section we present a series of Text Boxes that offer the views of individuals on their experiences of these four major roles. If we take the development of pedagogical voice to be an important goal of quality teacher education programmes, then it is important to listen and attend to representative voices of those involved.

Perspectives on the Four Major Roles in Teacher Education

Each player in a teacher education programme is unique in beliefs, attitudes, dispositions, and prior experiences. While classrooms can often be considered in terms of the two main roles of teacher and student, teacher education programmes typically involve at least four main roles: teacher candidate; mentor teacher; faculty supervisor; and, teacher educator. This section presents a series of text boxes that offer data that remind us of the particular perspectives on quality that can be associated with each role. These data are drawn from a large database of transcribed focus groups and interviews collected in a series of large- and small-scale funded research projects spanning the period 1999–2015. The data presented here are representative of comments made by both primary and secondary teacher candidates throughout the data collection period.

We find it important to acknowledge and authorize the voices of individuals working within each role. As Richert (1992) writes, “Voice is critical to teacher education. Considering and cultivating it are especially important ... given the vital connection between voice and learning” (p. 189). We find that these voices provide additional insights into the importance of striving to achieve the highest possible quality in programmes of teacher education. Richert reminds us of the challenging nature of learning to teach and the importance of supporting and encouraging reconstruction of prior knowledge:

Learning to teach is just like learning anything else that is difficult, uncertain, complex, and infinitely challenging. As novice teachers engage in the phenomenon of teaching, and then explain what they are doing, as well as how and why, they are learning about teaching while they are learning to teach. They are constructing their own personal knowledge of teaching ... For newcomers to the profession, the starting point from which they make sense of the complexity of classroom life typically comes from their prior experiences as students ... Knowledge is constructed and reconstructed over time; ideas and beliefs about teaching once held to be “true” are rejected and reframed as new information becomes available and circumstances change. (Richert, 1992, p. 188)

Voices of Teacher Candidates Learning to Teach

The first five text boxes offer insights developed by teacher candidates as they worked to make sense of their experiences in an initial teacher education programme. The first text box illustrates one teacher candidate’s metacognitive awareness of his

experiences and insights as he moves from his first practicum experience to the second. We believe that enhancing the quality of teacher education programmes requires supporting and encouraging metacognition with respect to how one is learning to teach (Text Box 19.1).

Text Box 19.1: A Teacher Candidate Reframes His Approach to Learning to Teach

I am halfway through the B.Ed. programme and there is a noticeable shift in my focus in comparison to where I was earlier in the programme. When I started I was focused on the content of the classes. I was eager to load up my mind with piles of information that I thought would be helpful during my first practicum. I am recalling the feeling of anticipation leading up to my first teaching experience [6 weeks]. All that information I thought would be useful took a back seat during my teaching because I was focused on everything else that was happening: Trying to respond to teaching moments, dealing with classroom management, planning lessons for the next day and just overall keeping up. There are books that give suggestions and recommendations but there is no one book or one person who can guide you through that. In fact, I find that this is the point of the exercise. Each teacher/person experiences teaching in entirely different ways.

In a recent talk with a colleague who is in his first year of teaching, I asked him what some of his most difficult challenges were in the fall semester. I anticipated that he would have narrowed the list down. His response was almost identical to the challenges I have listed above. Learning to teach takes time and experience.

The reason I am noting what I tried to do prior to my first practicum is that my preparation for my second practicum [4 weeks] is obviously different. We now have working experience in teaching. We [now] have a context for the information that is provided to us during class. We can imagine something working well, moreover, we can decide if it works well for us based on our styles of teaching. I am paying attention to how professors are modeling different techniques. I am looking at how the experience of a peer's teaching is making me feel. I can later connect that information with how it would work with students in my classroom. So in other words, I am interested in "HOW I am teaching" versus my previous focus on "WHAT I am teaching."

The most difficult task will be trying to evaluate the 'HOW' during my practicum instead of preoccupying myself with simply survival. I know that I can survive, I have done that already. I learnt so much from the first practicum but this next one has the opportunity to be so much more rich. Hopefully, I'll recognize those crucial moments and grab hold. (Research participant, 26 January 2015).

Text Box 19.2 also illustrates metacognitive awareness of the process of learning to teach. This account demonstrates how an individual moved away from teaching by default (lecturing) to recognizing his options and then making deliberate choice about teaching style. The positive impact of modeling by teacher educators is also noted.

Text Box 19.2: A Teacher Candidate Analyzes His Professional Learning

Despite being exposed to large quantities of information in education coursework prior to my first field placement, I arrived to the classroom with essentially the same understanding of teaching and images of self as teacher as when I entered the programme. It seems quite apparent in hindsight that my heavily entrenched beliefs about teaching—or apprenticeship of observation—acted as a filter to the initial programme content, and therefore, at the time, my default strategy was to lecture, but of course, to do so in an interesting and engaging manner.

The time between my first and second field placements gave me ample opportunity to reflect on my experiences and determine exactly what I had learned, if anything at all. I believe it was during this time that I began to develop a more sophisticated understanding of what it is to teach. I cannot entirely describe this process or explain it succinctly in words, but the result was ultimately a radical shift in my thinking about teaching and learning by putting the needs of learners front and centre. One important factor in this transformation involved my introduction to a teacher educator who took a very different approach to teaching than I had experienced in the programme before. The approach this educator took was one I will describe as teaching how to teach through example. Rather than simply tell me how to teach, this educator showed me how to teach through the experience that was created for me as a learner, and I was able to feel what that was like.

Once I began to recognize the fundamental processes integral to sound teaching practice, I began to feel the genuine excitement and fulfillment that it can bear. The prospect of a career where one is constantly engaged in new ways of thinking and confronting complex problems with unknown solutions is nothing short of invigorating (Harrison, 2014).

Text Box 19.3 provides an account of one teacher candidate's sense of the value of weekly and voluntary focus group meetings that provided an opportunity to analyze and interpret the professional knowledge developed in education classes and practicum experiences. This statement also illustrates how one individual took initiative in managing the relationship with a mentor teacher.

Text Box 19.3: A Teacher Candidate's Account of the Value of Weekly Focus Group Meetings

I feel like I will be a more reflective teacher and also a teacher who knows what I want. Sometimes it is hard to know what kind of teacher you want to be, since there are so many different ways. The meetings have enabled me to narrow my scope and see what I want. Through discussions, I have been able to start the process of sifting through all of the information and putting some of it into practice in this practicum. I have been very upfront with my casual/laid-back associates and have told them that I am someone who likes to plan in advance. I let them know that I know it might be a different style than their own, but that it is how I work (so that they aren't wondering why I ask so many questions!). I am much more relaxed with my associate teachers this time around, as I want to show them who I am as a teacher, and not who I think they want me to be.

Our meetings have been worthwhile because they are positive, encouraging, and safe times to talk about how we feel about practicum and as future teachers. There is sometimes a topic to be discussed, and other times discussion is based on what we are feeling strongly about. The meetings are always a great time to hear from other teacher candidates who I normally wouldn't run into and I find that I learn a lot through other teacher candidates' insights and experiences. I also like the random articles that we read, because I enjoy having readings and discussions based on them. I am so glad I joined this group. I just thought it would be a way to get more involved, but it has turned into a much more rich and encouraging experience. (Research participant, 12 February 2014).

Additional comments about weekly focus group meetings are presented in Text Box 19.4 to illustrate the contribution to quality that can develop when teacher candidates are given opportunities to meet outside of formal classes. Guided discussions of the complex process of becoming a teacher can develop valuable insights about reflective practice and about how various programme elements contribute to becoming a teacher.

Text Box 19.4: Two Accounts of the Value of Weekly Focus-Group Meetings About the Quality of Professional Learning

Being able to discuss my learning with other teacher candidates, not only about practicum but about course work as well, has really helped me to highlight key issues and areas that I want to focus on in my future learning. Our meetings have brought to my attention issues that I wasn't really aware of; I might have had a general concern and wasn't able to pinpoint it until talking

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Text Box 19.4 (continued)

with others and then it clicked what the issue was. *The meetings have definitely solidified my understanding of how one becomes a teacher.* I really value the discussion component and wish that was more prominent in my courses. Theory is great and you need a basis, but these discussions have emphasized the need for application of theory and actual classroom practice accompanied by feedback. (Focus group participant, 24 April 2015).

I think the most important thing I have learned is how important reflective practice and feedback can be. In hearing what other teacher candidates have said about their associate teachers, I have learned how much I benefited from having an associate teacher who gave great feedback. I have learned that reflective practice does not necessarily mean doing reflections like we do in teacher's college, but rather it is a way of teaching where you are constantly evaluating yourself to see how you can better reach your students. I find that the comfortable atmosphere engages me in a different way than my more formal classes. It has been excellent to have time to hear from other candidates outside of my subject areas. In being able to talk through frustrations or positive experiences, I am going forward with a desire to be more reflective and consistent than before. (Focus group participant, 24 April 2015).

Text Box 19.5 offers the reader a remarkably detailed analysis of a series of turning points as one teacher candidate made links between theory and practice as he worked to understand his development. Particularly noteworthy is the focus on developing a range of teaching approaches in order to focus on the quality of students' learning.

Text Box 19.5: One Teacher Candidate's Critical Analysis of His Learning to Teach

The following is a metacognitive analysis of my personal and teaching habits as well as my mind frames regarding how students learn. It explains how my teaching and learning have led me to discover some of the profound lessons that all teachers should know. Firstly, I learned that teachers need to have their cake and eat it too. Secondly, I realized that rewards can actually hurt students.

During my first practicum I really embraced active learning (Knight, 2004). I did lots of POEs (Predict-Observe-Explain) and I incorporated several PEEL (Project for Enhancing Effective Learning; <http://peelweb.org>) procedures into my lesson plans. Sadly, when I got back to classes I couldn't say how much my students had actually learned. That insight was very disorienting.

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Text Box 19.5 (continued)

What grounded me again was a connection to Hattie's (2012) description of how a "passionate, inspired teacher" (p. 24) plans lessons: by focusing on the learning that needs to happen before thinking about how to conduct the lesson. Accordingly, for my next practicum I consulted the curriculum guidelines to find the expectations that I would be responsible for teaching. Then I focused on having "the mind frame to foster intellectual demand, challenge, and learning" (Hattie, p. 35). And it worked! Students learned [the topic of] Relativity well. I became a focused, determined, exhausted teacher. With all my focus on the learning, I had lost sight of the various methods of teaching. Still I had made tremendous strides towards connecting with the students. As Alfie Kohn would put it, I had begun "working with" students, rather than "doing to" students. Pedagogically, however, I was a one-trick pony: talking and then helping the students solve problems.

To address my methodlessness, I revisited the PEEL procedures and discovered a whole new world of pedagogical insights. No longer was this just a database of different teaching methods; it was a toolbox with various procedures to fix learning problems. Now I know that I need to have a wide repertoire of teaching methods so that I can better facilitate the *learning* that needs to happen. Another, more academic, way of putting it would be: I need to develop my technological pedagogical content knowledge (Mishra & Koehler, 2006). Yet another, more creative, way of putting it would be: I need to have my cake and eat it too.

The idea of "working with" students aligned seamlessly with the PEEL idea of sharing intellectual control with students. This idea also extends beyond teaching content, even though it has content-learning implications that I have felt when I was given trust and decision-making power over my own learning. The most important effect was on HOW I learn. Under such conditions, not only was my learning more enjoyable, but also the intrinsic value was amplified by the fact that I wanted the learning that I had decided to pursue to be valid. I want my students to have that kind of enjoyment—the pleasure of finding things out.

As a teacher, I need to remember why I love physics and math. If I don't see the value in what I'm teaching, then my students *never* will. We may get through the curriculum, but what a pointless endeavor it would be! If I can focus on the learning as well as on how to teach, afford students the respect and choices necessary to encourage vulnerability and risk-taking, and also set an example for the kind of person I want students to be, then I can discover more ways of helping students learn. (M. Brown, Queen's University, 12 February 2013).

Mentor Teacher

When six experienced mentor teachers (Kindergarten to Grade 8) were invited to share their perspectives on practicum learning in a 2-h focus group discussion, four major themes emerged in the search for greater quality in professional learning in the practicum. These themes (see Text Box 19.6) involved the teacher candidate's personal presentation and development of productive relationships as well as the importance of early participation and attention to various dimensions of a teacher's work—classroom, school, curriculum and parents.

Text Box 19.6: Insights from a Focus Group with Mentor Teachers

1. The teacher candidate's teaching persona is crucial.
 - Park your ego at the classroom door. The practicum is a humbling experience.
 - Be collegial—teaching is a political business
 - Learn as much as you can, then share it with others in classes.
2. Early and energetic engagement in the practicum setting are imperative.
 - Show initiative. Be willing to engage, and also willing to rise from the ashes (you will crash and burn).
 - Connect with kids—even the ones you don't like or understand—challenge and engage the students.
3. The contexts of classroom, school, curriculum, and parents are just as significant as the context of the university programme itself.
 - School-university *partnership is so much more than countless details of what the university expects* when it sends teacher candidates to schools that agree to take them.
 - Teachers and faculty must share the *big picture* of helping candidates learn to teach by learning from experience.
 - The *theory-practice gap* is even bigger than we thought. So many daily responsibilities of teachers and faculty are invisible unless one is personally present and doing them. Practical responsibilities necessarily become all-consuming in an environment that offers few opportunities to focus on the big picture.
4. The teacher candidate's relationships with students, associate teachers, and university supervisors are central to productive practicum learning.
 - Collegiality is essential at every level.
 - Share with everyone, learn from everyone.

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Text Box 19.6 (continued)

- The practicum is not about associate teachers transmitting a set of directives from the university. Productive practicum learning requires constructive relationships among candidates, associate teachers, and faculty supervisors. Productive practicum learning also requires a dynamic process in which associate teachers and faculty supervisors meet as colleagues with the shared purpose of assisting and guiding the teacher candidate.
- Each teacher candidate, associate teacher, and faculty supervisor is unique and speaks from both beliefs and experiences. Learning to do well in the practicum setting has little in common with learning in a university classroom, if that classroom focuses narrowly on transmitting elements of a professional knowledge base for teaching. In the practicum there are no right answers, only complexities and puzzles that have the potential to provoke conceptual change if those learning to teach are open to learning from both students and teachers.

Faculty Supervisor

Text Boxes 19.7 and 19.8 offer two perspectives on some of the challenges of the convoluted role of a faculty supervisor in a teacher education programme. These perspectives serve as reminders that there is great complexity in the role of faculty supervisor, just as there is great complexity in the roles of teacher candidate and mentor teacher.

Text Box 19.7: Ambiguity and Confusion in the Faculty Supervisor Role

The role of the university supervisor is ambiguous at best, and that role in relationship to the expectations for the cooperating [mentor] teacher is even more confused ... The degree to which the university supervisor can affect the classroom practices of student teachers, given the structure of the experience, is questioned by supervisors themselves ...

I felt that as a supervisor I was not affecting the student teachers' classroom practices very much ... Short observation and feedback sessions once every 2 weeks do not constitute adequate supervision (Richardson-Koehler, 1988, p. 32).

Text Box 19.8: Self-Study of a Faculty Supervisor's Activities

In a self-study of his own practices as a supervisor of teacher candidates' practicum experiences, Russell (2002) attempted to understand the consequences of a dramatic programme restructuring that made significant changes to the traditional expectations for the role of faculty supervisor.

The central question that emerged for me was: "*How can I help each candidate improve the quality of professional learning during the early extended practicum?*" Although this central question focuses on candidates, a second question was always prominent in the background: "*How can I help to improve the quality of the professional relationship between this school and the Faculty of Education at Queen's University?*" My self-study, then, is based on an action research design with a view to documenting and understanding each individual's experiences of learning to teach. (p. 77, emphasis in original)

The process of studying his own behaviour in a role that involves at least 30 individuals (associate teachers and teacher candidates) in one school helped him realize how easy it is to take events for granted. Self-study opened his eyes to the complexity of the programme and its goal of improving the quality of practicum learning.

With the clarity of hindsight, I realize that there were many moments when I tended to assume that simply *being in the school* was the basic requirement for success in the new role, in the eyes of those learning to teach and in the eyes of the experienced teachers to whom the teacher candidates were assigned. Personal experience and self-study of that experience have taught me how much more complex the matter is ... We continue to tinker with the structure as we also attempt to re-examine and re-define its underlying assumptions and our collective beliefs about learning to teach. Predictably, teacher educators are no better at changing their practices than are teachers anywhere else. (p. 74)

In the tradition of self-study, the gathering of data from those he was supervising led to the following challenges to familiar assumptions:

This self-study has forced me to reconsider my early premise that visits to schools to observe pre-service candidates are, in and of themselves, valuable to all concerned. School visits are made with the best of intentions, yet we have little evidence of the impact of a faculty member's school visits on candidates' professional learning or on the school-university relationship. We would be foolish to assume that visits are good, in and of themselves. Spending more time in schools does not automatically contribute to candidates' professional learning, but *time spent in schools is a fundamental base on which broader goals and relationships can be constructed.* (p. 84)

This self-study concluded with the following points about practicum supervision and self-study:

While experience is powerful, learning from experience is far from automatic, perhaps because all levels of formal schooling pay little attention to learning from experience. Candidates' initial mindsets now seem even stronger than I realized. (p. 84)

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Text Box 19.8 (continued)

My most compelling insight is that teacher candidates, experienced teachers, and faculty liaisons can be expected to approach supervisory interactions with 'default' assumptions driven by unexamined personal experiences. At the outset, self-study is a way to bring such assumptions to the surface; over time, self-study is a way to keep one's focus on the goal of extending our professional understanding of what it means to learn from experience in the classroom and school settings. With that long-term end in view, genuine partnerships may emerge from a base of significant time spent with candidates and experienced teachers, unpacking not only observations of candidates' teaching but also our fundamental premises about teachers' professional learning. (p. 86)

Teacher Educator

Text Box 19.9 provides statements from published literature by a range of people who have conducted research on teacher education and made observations about the role of teacher educator. These statements illustrate the central obligation of the teacher educator to enact that role in ways that contribute to the overall quality of a teacher education programme. Each statement highlights a different aspect of the teacher educator's role, reminding us of the multi-faceted nature of the quest for quality.

Text Box 19.9: Perspectives on the General Role of the Teacher Educator

Nuthall (2005) reviewed his career in teacher education and research and drew these insights:

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. (p. 925)

Loughran and Russell (2007) reviewed their roles as teacher educators and reached these conclusions:

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

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Text Box 19.9 (continued)

teacher preparation than training; it requires *educative experiences purposefully embedded in meaningful pedagogical situations*. (p. 222, emphasis in original)

Zeichner (2010) commented on the importance of connecting school and university experiences:

One of the most difficult challenges for me over the years has been to mobilize intellectual energy in my department around strengthening the connections between what our student teachers do in their school and community placements and the rest of their teacher education program. (p. 90)

Haigh and Ward (2004) considered the teacher educator's role with respect to the practicum:

We believe that the decisions being taken regarding teacher education practicum processes and structures should be academically anchored and firmly evidence based. We must, therefore, continue to question the taken-for-granted and carry out research in the area of practicum so that our new understandings help us to challenge the status quo in teacher education. Only then will the practicum and the manner in which it is perceived and conducted be more than simply a site for practising teaching. (p. 146)

Feiman-Nemser (2001) offered this challenge:

Unless teacher educators engage prospective students in a critical examination of their entering beliefs in light of compelling alternatives and help them develop powerful images of good teaching and strong professional commitments, these entering beliefs will continue to shape their ideas and practices. (p. 1017)

These nine text boxes serve to remind us of the four quite different vantage points used by individuals engaged in teacher education programmes to judge the quality of their learning and teaching experiences. It is helpful, if not essential, for those who hold one role to have some access to the perspectives and challenges of those who hold other roles.

Developing the ability to see beyond one's own perspective—to put oneself in the shoes of the learner and to understand the meaning of that experience in terms of learning—is, perhaps, the most important role of universities in the preparation of teachers ... The capacity to understand another is not innate. It is developed through study, reflection, guided experience, and inquiry. (Darling-Hammond, 2008, p. 343)

Improving quality can begin with listening and continue with critical conversation between and among all the players in teacher education.

In Pursuit of Quality in Initial Teacher Education

Listening to Those Learning to Teach

Listening to those we teach and to those who complete the programme in which we teach has been our most valuable source of inspiration as we work to reshape our own preservice classrooms into contexts for more productive learning about how to teach. It seems both ironic and intriguing that a strategy of listening led us to the insight that *listening itself is a powerful way forward in the quest for teaching that enhances quality in teacher candidate learning*. It is in the act of listening that one validates voice, and the development of *pedagogical voice* is an essential element of learning to teach. We see pedagogical voice as the medium in which teachers explain to themselves and to others the relationship between their actions as teachers and the subsequent and associated learning of their students.

We see value in at least two senses of listening: (1) listening actively, responsively, and in diverse ways to those who are learning to teach, in order to understand their perceptions of quality and lack of quality; and, (2) extending that listening into the study of one's own practice as a teacher educator. Because we have listened for many years to those leaving our programme, we immediately identify with the points made by Feiman-Nemser (2001). As we study our own practices, we are able to explore the practical significance of conceptualizing teacher education and development as a continuum. Our early work with focus groups has inspired us to continue to listen to those we teach, and that listening has compelled us to re-examine our own teaching. In that process we have come to appreciate the high need within a preservice programme for coherence and collaboration (Russell, McPherson, & Martin, 2001) rather than various forms of negative or destructive dissonance.

Our experiences listening to those learning to teach and then identifying the teaching changes they have inspired help us to appreciate Cook-Sather's (2002) arguments for "authorizing" students' perspectives on learning. Her reference to power relationships reminds us that issues of power in the teacher educator-teacher candidate or mentor teacher-teacher candidate relationship can be significant barriers to genuine listening.

Most power relationships have no place for listening and actively do not tolerate it because it is very inconvenient: to really listen means to have to respond. Listening does not always mean doing exactly what we are told, but it does mean being open to the possibility of revision, both of thought and action. At a minimum, it means being willing to negotiate. Old assumptions and patterns of interaction are so well established that even those trying to break out of them must continue to struggle. And understanding that is part of what it means to listen. (Cook-Sather, 2002, p. 8)

Here we are also trying to capture Schön's (1987, p. 158) sense of reflection-in-action as a, "reflective conversation with the materials of a situation," in which listening plays a significant role. Text Boxes 19.10 and 19.11 illustrate the kinds of insights into teacher candidate learning that can emerge when teacher candidates' perspectives on their learning are authorized in a teaching relationship that encourages listening.

Text Box 19.10: A Teacher Candidate's Insights into Reflective Practice

I think the most important thing I have learned in our meetings is how important reflective practice and feedback can be. In hearing what other teacher candidates have said about their mentor teachers, I have learned how much I benefited from having a mentor teacher who gave great feedback. I have learned that reflective practice does not necessarily mean doing reflections like we do in teacher's college, but rather it is a way of teaching where you are constantly evaluating yourself to see how you can better reach your students. (Research participant, 10 February 2014).

Text Box 19.11: A Teacher Candidate Realizes the Importance of Actively Seeking Feedback

Yes, mentor teachers should be aware that their feedback is helpful and really necessary, but I also have to seek advice on issues that are nagging me and learn to ask more questions. Our conversations about specific areas we want to improve upon also gave me great tips and helped me focus my learning goals for this practicum. (Research participant, 12 February 2014).

Searching for Quality Learning in Teacher Education

This is an appropriate point in our argument to be clear about our approach to the analysis of quality in teacher education programmes. We ARE NOT suggesting that education courses do not play a critical role in teacher education. We ARE suggesting that the pursuit of quality requires far more careful attention to the two very different types of learning experiences that teacher candidates have in our programmes. In courses, they are students aspiring to be teachers, always on the lookout for ideas they can connect to practice. In practicum experiences they are unqualified teachers aspiring to improve as quickly as they possibly can. They are required to move back and forth between two very different roles in two very different contexts. This goes some way to understanding the elusive nature of quality. Mentor teachers, faculty supervisors, and the teacher educators who teach their courses all need to be attentive to teacher candidates' two different roles and the need to help candidates build connections between two very different types of learning in two very different contexts.

The ultimate folly of teacher education institutions involves trying to improve schools by filling new teachers with dreams of new research-based practices without first attending to and improving their own teaching as teacher educators. Darling-Hammond (2006, pp. 279–280) cites the only-too-plausible criticism that “one reason professors spend so much time trying to change K-12 schools is that they know they cannot change their own organizations.” The reality that preservice

programmes can never fully prepare a new teacher for school realities has been recognized by the creation of induction programmes. Connecting messages from education classrooms to in-school contexts is one rationale for promoting the quality of learning from practicum experiences. Promoting such quality requires teaching candidates how to learn from their practicum experiences in ways that make explicit the perspective of school as a culture and the inherent complexity of creating classroom contexts of productive learning.

Cochran-Smith (2004, p. 295) has argued that teacher education has been conceptualized in three major ways in the last 50 years: as a matter of training; as a matter of learning; and, as a matter of policy. How the pre-service teacher candidate thinks of learning to teach—as any or all of these three or in other ways—may be even more important than how teacher educators think of learning to teach. We have been particularly struck by the apparent absence of conversations between pre-service teachers and teacher educators within our own Faculty of Education about how teacher education is conceptualized. How frequently do such conversations occur in your institution? The constraints of candidate expectations, government regulations, university structures, and practicum requirements may make it impossible to achieve a teacher education programme that successfully models a context for productive learning. However, if schools themselves are to create contexts of productive learning for children, then the goal of quality learning for teacher education must not be overlooked as part of the overall picture to which all teacher educators must contribute.

The Australian Project for Enhancing Effective Learning (PEEL) is perhaps the ultimate illustration of conversations about how schooling is conceptualized and what focused conversations about teaching and learning can achieve. This project brought teachers together across school subjects to find ways to draw students into the learning process. PEEL generated a list of *Principles of Teaching for Quality Learning* that are both complex and challenging. They are as appropriate for teacher education classrooms as they are for primary and secondary school classrooms.

1. Share intellectual control with students.
2. Look for occasions when students can work out part (or all) of the content or instructions.
3. Provide opportunities for choice and independent decision-making.
4. Provide diverse range of ways of experiencing success.
5. Promote talk that is exploratory, tentative and hypothetical.
6. Encourage students to learn from other students' questions and comments.
7. Build a classroom environment that supports risk-taking.
8. Use a wide variety of intellectually challenging teaching procedures.
9. Use teaching procedures that are designed to promote specific aspects of quality learning.
10. Develop students' awareness of the big picture: how the various activities fit together and link to the big ideas.
11. Regularly raise students' awareness of the nature of different aspects of quality learning.
12. Promote assessment as part of the learning process (Mitchell, Mitchell, & Lumb, 2009; see also <http://peelweb.org>).

Quality learning has long been an elusive characteristic of many teacher education courses. As Darling-Hammond (2006) has shown, only a few teacher education programmes have achieved significant levels of coherence and quality learning. Darling-Hammond et al. (2008) draw on the research by Donovan and Bransford (2005) for the National Academy of Science to offer three “fundamental and well-established principles of learning that are particularly important for teaching”:

1. Students come to the classroom with prior knowledge that must be addressed if teaching is to be effective. (p. 3)
2. Students need to organize and use knowledge conceptually if they are to apply it beyond the classroom. (p. 4)
3. Students learn more effectively if they understand how they learn and how to manage their own learning. (p. 4)

Darling Hammond et al. (2008) also offer seven characteristics of effective teaching:

Studies consistently find that highly effective teachers support the process of meaningful learning by:

- Creating ambitious and meaningful tasks that reflect how knowledge is used in the field
- Engaging students in active learning, so that they apply and test what they know
- Drawing connections to students’ prior knowledge and experiences
- Diagnosing student understanding in order to scaffold the learning process step by step
- Assessing student learning continuously and adapting teaching to student needs
- Providing clear standards, constant feedback, and opportunities for work
- Encouraging strategic and metacognitive thinking, so that students can learn to evaluate and guide their own learning (p. 5, emphasis in original)

These three principles and seven characteristics should also be read as principles of teaching for quality learning that are essential in any attempt to improve the quality of learning in a teacher education programme. Quality learning would be greatly assisted by a tradition in teacher education of examining our teaching of beginning teachers in light of principles such as these.

Fostering Metacognition and Learning from Experience

Do teacher education programmes foster metacognition? Should they? Fostering metacognition is not typically associated with teacher education programmes, but the absence of such efforts may help to explain why teacher education is so frequently criticized by those who experience such programmes. Gunstone and Northfield (1994) described metacognition as, “learners having an informed and self-directed approach to recognizing, evaluating and deciding whether or not to reconstruct ... personal conceptions, attitudes, beliefs” (p. 526). Such processes of reconstruction and the making of informed decisions are contingent on learners having the requisite knowledge and skills to do so. Importantly, Gunstone and Northfield underscore that, if learners are to become metacognitive, the teacher’s

role is enhanced and in no way diminished, “to allow and actively promote recognition, evaluation, and reconstruction” (p. 525).

Sawyer (2006) sees metacognition and reflection as linked and describes them in the context of research in the learning sciences.

One of the reasons that articulation [of one’s developing knowledge] is so helpful to learning is that it makes possible *reflection* or *metacognition*—thinking about the process of learning and thinking about knowledge. Learning scientists have repeatedly demonstrated the importance of reflection in learning for deeper understanding. Many learning sciences classrooms are designed to foster reflection, and most of them foster reflection by providing students with tools that make it easier for them to articulate their developing understandings. Once students have articulated their developing understandings, learning environments should support them in reflecting on what they have just articulated. One of the most central topics in learning sciences research is how to support students in educationally beneficial reflection. (Sawyer, 2006, p. 12)

Hammerness, Darling-Hammond, and Bransford (2005) speak clearly about the importance of metacognition in the work that teachers do, confirming our sense that fostering metacognition is an essential feature of quality learning in teacher education programmes:

People with high levels of metacognitive awareness have developed habits of mind that prompt them to continually self-assess their performances and modify their assumptions and actions as needed. People who are less metacognitive rely on external feedback from others to tell them what to do and how to change.

Effective teachers particularly need to be metacognitive about their work. The more they learn about teaching and learning the more accurately they can reflect on what they are doing well and on what needs to be improved. For example, beginning teachers frequently focus on their teaching practices rather than on what their students are learning. They need to be able to figure out what they do and do not yet understand about how their students are performing and what to do about it. They also need to be able to ask themselves and others questions to guide their learning and decision-making. (pp. 376–377)

We see an additional element of metacognitive skill development that relates particularly to teacher candidates’ practicum experiences. Those learning to teach have spent years becoming experts in the role of student, enjoying classroom learning so much that they intend to continue to work in classrooms but with the role of a teacher. Teaching in practicum placements requires a very unfamiliar skill—learning from experience systematically rather than haphazardly. Teacher candidates learned the authority of reason as they learned from textbooks and arguments; they learned the authority of position as they took direction from parents, teachers, and now mentor teachers guiding their practicum experiences. Teacher education programmes require them to develop skills of learning from experience, in order to develop that personal sense of the authority that comes with experience seen systematically through a metacognitive lens. Munby and Russell (1994) note:

Listening to one’s own experience is not the same as listening to the experience of others, and the students seem to indicate that they still place much more authority with those who have experience and with those who speak with confidence about how teaching should be done. They seem reluctant to listen to or to trust their own experiences as an authoritative source of knowledge about teaching. We wonder how and to what extent they will begin to hear the voice of their own experiences as they begin their teaching careers.

The basic tension in teacher education derives for us from preservice students wanting to move from being under authority to being in authority, without appreciating the potential that the authority of experience can give to their learning to teach. The challenge for teacher education is to help new teachers recognize and identify the place and function of the authority of experience. If this is not done, the authority of experience can fall victim to the danger that accompanies all versions of authority: mere possession is not enough because authority can be abused. (pp. 93–94)

Until teacher education programmes come to terms with the fundamental importance of experience and the authority that comes with experience, programme structures are likely to contradict their research-based premises and rhetoric, leaving candidates continuing to discount the significance of their formal courses in education.

Promoting Knowledge Integration

Working in the context of teaching and learning science, Linn and Eylon (2011) have developed a strong case for the idea of knowledge integration. Those learning to teach have often complained that the task of integration their various courses and their practicum experiences is left to the individual. The quality of teacher education programmes could be improved by careful attention to the integration of the array of learning experiences that teacher candidates have in a programme intended to prepare them for their first year of teaching. They note:

When absorption fails, it is common to argue that (a) students are not sufficiently motivated or do not work hard enough, (b) students need to develop a larger vocabulary, master some set of facts or details, or develop more powerful reasoning skills before they can understand the material, or (c) students are inhibited by misconceptions or naïve ideas that interfere with their ability to absorb the new knowledge. The absorption approach guides the design of most textbooks, lectures, and even laboratory experiences. In this book we argue that instruction should be designed using a knowledge integration (KI) approach that involves building on personal ideas, using evidence to distinguish alternatives, and reflecting on alternative accounts of scientific phenomena. (p. 4)

Promoting KI runs counter to the intuitive belief that transmitting *information is key to learning*. Many textbook designers, lecturers, and even some classroom experiments follow the intuitive belief that if they just find the ideal explanation, students will learn the material. Lectures get more packed, books get longer and longer, but students only get more and more confused. Transmission without attention to the ideas held by the learners leads to adding but not integrating ideas. Students often remember the new ideas only long enough to repeat them on the next classroom test. The KI approach emphasizes *adding ideas* to the mix of ideas held by students but argues that effective ideas need to serve as pivotal cases that help students develop more coherent understanding ... The KI approach emphasizes finding ways to help students use evidence to distinguish new ideas from the ones they have developed already. Rather than viewing the ideas held by students as unworthy of consideration, the KI approach seeks to engage students in analyzing all of their ideas. (p. 281)

As both Hattie (2009, 2012) and Linn and Eylon (2011) suggest, one of the major differences between absorption and knowledge integration as frames for thinking about learning is the demand that knowledge integration places on teachers; making student learning visible requires teachers to do far more listening to students than is required by an absorption mindset. Cook-Sather (2002) put the issues very clearly:

The work of authorizing student perspectives is essential because of the various ways that it can improve current educational practice, re-inform existing conversations about educational reform, and point to the discussions and reform efforts yet to be undertaken. Authorizing student perspectives can directly improve educational practice because when teachers listen to and learn from students, they can begin to see the world from those students' perspectives. (p. 3)

Listening to students' voices may be one of the most challenging new habits required of those learning to teach and of those who teach them; neither teacher candidates nor teacher educators have many experiences of being listened to by their former teachers, and thus they lack an initial mindset for doing so. Achieving knowledge integration in teacher education programmes would be a significant step toward improving quality; more listening and more attention to learning from experience will be significant steps along the way.

Connecting Epistemology to the Challenge of Quality

We rarely see discussions of epistemology in the context of teacher education programmes. A common assumption appears to be that programmes should focus on encouraging the use of evidence-based "best practices" without anchoring epistemological issues more broadly. The field of physics education research provides important conclusions that pose important challenges for teacher educators in search of greater quality in their classrooms and in their programmes. A paper by Elby (2001) signals the potential significance of epistemological issues when teaching for conceptual change in physics, and we would extend Elby's insights to the significance of epistemological issues associated with concepts of teaching and learning. The following excerpts from Elby's report point to a way forward. The crucial feature is the view that attention to epistemological development must be explicit:

Many of the best research-based reformed physics curricula, ones that help students obtain a measurably deeper conceptual understanding, generally fail to spur significant epistemological development. Apparently, students can participate in activities that help them learn more effectively *without* reflecting upon and changing their beliefs about how to learn effectively. These students may revert to their old learning strategies in subsequent courses. (p. S54)

The fact that so many excellent physics courses fail to foster significant epistemological change ... suggests that isolated pieces of epistemologically focused curriculum aren't enough. Instead, the epistemological focus must suffuse every aspect of the course.

Second, the classroom atmosphere created by the instructor, and the way he/she interacts with individual students, undoubtedly plays a large role in fostering reflection about learning. (p. S63)

Students' epistemological beliefs—their views about the nature of knowledge and learning—affect their mindset, metacognitive practices, and study habits in a physics course. Even the best reform curricula, however, have not been very successful at helping students develop more sophisticated epistemological beliefs. (p. S64)

Issues of epistemology are significant not only at the programme level but also at the level of the university itself (see also Munby, Russell, & Martin, 2001). Rare or extinct is the teacher education programme that has not adopted wholeheartedly the

term *reflection*, yet there is little evidence that the term has been taken beyond its common-sense meanings to incorporate Schön's (1983) focus on the significance of reflection in learning from experience. Schön (1995) later extended his analysis to include issues of epistemology:

All of us who live in research universities are bound up in technical rationality, regardless of our personal attitudes toward it, because it is built into the institutional arrangements—the formal and informal rules and norms—that govern such processes as the screening of candidates for tenure and promotion. Even liberal arts colleges, community colleges, and other institutions of higher education appear to be subject to the influence of technical rationality by a kind of echo effect or by imitation. Hence, introducing the new scholarship into institutions of higher education means becoming involved in an epistemological battle. It is a battle of snails, proceeding so slowly that you have to look very carefully in order to see it going on. But it is happening nonetheless. (p. 32)

The epistemology appropriate to the new scholarship must make room for the practitioner's reflection in and on action. *It must account for and legitimize not only the use of knowledge produced in the academy, but the practitioner's generation of actionable knowledge in the form of models or prototypes that can be carried over, by reflective transfer, to new practice situations.* The new scholarship calls for an epistemology of reflective practice, which includes what Kurt Lewin described as action research. But in the modern research university and other institutions of higher education influenced by it, reflective practice in general, and action research in particular, are bound to be caught up in a battle with the prevailing epistemology of technical rationality. (p. 34, emphasis added)

These comments about epistemology complete our exploration of topics relevant to the pursuit of greater quality in teacher education programmes.

Conclusion

What counts as quality in teacher education programmes and the associated experiences of those learning to teach? Recall the basic issues:

Teachers must learn to integrate ways of thinking, knowing, feeling and acting into a principled and responsive teaching practice. Inside the classroom, teachers engage in a wide range of activities—explaining, listening, questioning, managing, demonstrating, assessing, inspiring. Outside the classroom, teachers must plan for teaching, collaborate with colleagues, work with parents and administrators ... To act like a teacher, teachers need a repertoire of skills, strategies and routines and the judgment to figure out what to do when. The normal busyness of classrooms requires the establishment of routines to make teaching manageable. At the same time, the unpredictability of teaching means that teachers are constantly absorbing new information and using it to decide what to do next. (Feiman-Nemser, 2008, pp. 699–700)

We began from the position that the quality of many teacher education programmes is perceived by many to be low. The last 40 years have produced volumes of research (see the various handbooks of research on teaching and on teacher education) on ways to improve teacher education programmes, yet there has been little research on their quality. In this chapter we have developed a range of qualitative perspectives on the issue of quality with a view to focusing attention on the many

challenges to achieving quality. Quality is an elusive construct because there is no single definition that can apply universally to the teacher education practicum, teacher education classrooms and lecture halls, and relationships among individuals in roles as diverse as students and mentor teachers in schools, faculty supervisors who move between schools and universities, and teacher educators in colleges and universities. There is no single recipe for quality in a domain as complex as teacher education.

Some might be inclined to link the frequent reference to best practices to the concept of quality but we deliberately resist making such a link. It is common for those learning to teach to seek out resources created by experienced teachers, perhaps in a quest for the magic bullet of teaching—that one right way to teach that will generate high-test scores while minimizing management problems. To challenge the quest for one right way to teach (either in schools or in teacher education programmes), we acknowledge at the outset that our focus is on recognizing, accepting and working with the complexity of each and every student in each and every classroom. We hope that readers have explored this chapter from the perspective that quality learning in teacher education requires reading teacher candidates' reactions and consistently adapting our teaching in ways that respond constructively to those reactions. We close with further comments from others who also seek quality in teacher education.

Darling-Hammond, Newton, and Wei (2010) studied their own programme at Stanford and offered these conclusions in the context of familiar pressures to measure quality in terms of effectiveness:

Although there is strong press for the use of measures of teacher effectiveness as measured by student achievement gains, these are unlikely to help teacher educators improve programmes without a rich array of other tools that reveal how specific experiences support candidates in developing useful practices, and what areas of practice need more attention.

Educators will need to develop many ways of looking at the impacts of teacher education on candidates' knowledge, skills, practices, and contributions to pupil learning. Using multiple measures and examining the relationships among them may help teacher educators develop a knowledge base for the continuous improvement of their own practice and may ultimately save the enterprise of teacher education as a whole. (p. 386)

Feiman-Nemser (2001) stressed that quality in teacher education requires consideration of the practical contexts in which teachers do their work as professionals and also the very practical nature of that work:

Much of what teachers need to know can only be learned in the context of practice. This does not mean that good professional education and development only take place “in” schools and classrooms. It does mean that a powerful curriculum for learning to teach has to be oriented around the intellectual and practical tasks of teaching and the contexts of teachers' work. (p. 1048)

Le Cornu and Ewing (2008) reminded us that a reflective practicum requires teacher candidates to be active rather than passive, positive but not submissive, embracing risks and developing a professional voice:

A change in the role perceived for student teachers also became evident as they were positioned to accept more responsibility for their own learning. Student teachers were posi-

tioned to ‘find their voice’, which is very different to the traditional situation in the practicum, described by Canning (1991), who claimed that: ‘Student teachers trained to please, to defer to professors and supervisors for good grades and positive evaluations, said that they had a voice, but had learned to withhold it’ (p. 19). Student teachers, in a reflective practicum, are no longer passive recipients of the practicum but take control over their learning and accept responsibility for it. With this comes enhanced risk taking and increased professional agency. (p. 1802)

We conclude that initial teacher education programmes making efforts to achieve quality will be more successful when the many dimensions of the concept of quality are embraced, the challenges are understood, and the complex nature of quality is pursued accordingly.

Acknowledgements This work includes data collected under a grant from the Social Sciences and Humanities Research Council of Canada. We are grateful to the many students, mentor teachers, faculty supervisors and fellow teacher educators who have contributed to our efforts to understand and improve quality in teacher education.

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Chapter 20

Intimate Scholarship: An Examination of Identity and Inquiry in the Work of Teacher Educators

Mary Lynn Hamilton, Stefinee Pinnegar, and Ronnie Davey

Introduction

In this chapter we look across the literatures of identity, inquiry, and pedagogy to explore the place of teacher educators in their institutions and the methodologies for inquiry they use to sustain themselves as instructors and scholars. Through examination of practice that represents a fundamental quality of teacher education and guided by felt obligations to students, teachers and teacher education, the evolution of identity formation as a site for the growth of professional knowledge occurs through experience. This chapter articulates the need for and potential contribution of intimate scholarship to the conversation concerning research on teacher education. We assert that intimate scholarship includes various methodologies but we privilege this label when the researcher is one of the researched. In addition, relational ontology grounds researchers with a focus on the particular rather than the universal, a coming-to-know process through dialogue and a context that includes a space of vulnerability and openness. Such work utilizes numerous research methodologies, including forms of action research, autobiography, autoethnography, reflective inquiry, scholarship of teaching and self-study of teaching and teacher education practices (S-STEP).

This chapter explores various tensions, puzzles of practice and conundrums addressed in the literature and gives attention to the notion of intersecting identities. For example: teacher educator identities shaped by and viewed through the lens of

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culture, sexual orientation, race and class. We explore how becoming a teacher educator – experiencing living contradictions, wondering about experiences, investigating practices, or exploring professional curiosities (Pinnegar & Hamilton, 2009) – offers focus, context, and opportunity to use inquiry, particularly forms of intimate scholarship to contribute new knowledge to the research conversation on teacher education. Ultimately, we turn to a consideration of how what we learn leads us to form and shape pedagogical responses.

Theoretically, we take as starting points the notions of identity – as socially constructed, subjective, plural, and subject to constant personal negotiations as people position and re-position themselves within social and institutional contexts (Murphy & Pinnegar, 2011; Pinnegar & Murphy, 2011) – and professional identity as the ‘valued professional self’ (Davey, 2013, p. 6). Teacher educators’ identity negotiations and constructions of professionalism are indeed complex (Murray, 2014). This chapter draws on key theories of identity as a backdrop against which we place a survey of literature on teacher education regarding teacher educator professional identity, their lived experiences, their identified roles and positioning in the institutional structures within which they work. The problematics of self-identification are also addressed.

As we examined teacher educators along with their roles and ways of being in their institutions, we looked at how identity, inquiry and pedagogy represent and shape that place, recognizing that wherever they are in the world pressures, questions and critiques exist about what ‘ought to be done’ and what teacher educators should do. We also remembered that teacher educators, across institutions, national boundaries, and cultures, might well have other and potentially differing roles in their institutions beyond their classrooms. Importantly, we cannot understand teacher educators, their identities, their views of inquiry and approaches to pedagogy without turning first toward teacher education. In many ways we could say that teacher educators educate themselves for their profession (Arizona Group, 1995; Martinez, 2008) so that their preparation as teachers (or lack thereof) and their teaching experience become critical to understanding how they perceive their identity, inquiry and pedagogy.

With its professional focus, teacher education has a different place in the university than most disciplines. Whereas an academic in a discipline must know the work and thinking within a discipline, a teacher educator must know the discipline along with having the pedagogical skills to prepare others to teach the concepts and principles a typical university person teaches. When we consider what it takes to be a teacher educator, we also explore the institutional grip upon the minds of teacher educators (Arizona Group, 2007; Ball, 2003; Davey, 2013) and the ways that training models may bound, decontextualize, and hold static students and teachers. Every review of research on teacher education published in the last decade has argued for the need for stronger research to guide teacher education and teacher educators. However, such reviews usually promote research models that focus on experimentation and the use of large data sets as the research that needs to be done (e.g., Borko, 2004; Cochran-Smith, 2005; Cochran-Smith & Zeichner, 2005; Darling-Hammond & Bransford, 2005).

In contrast, some researchers like Putnam (2005) assert that a thorough study of the particular offers insight that can guide us in responding to recurring difficulties in education and beyond. Similarly, other researchers who focus on teacher education and teaching argue that research on teaching and teacher education that will be most helpful for preparing new teachers will emerge from careful studies of the particular and the local (see Bullough, 2008; Darling-Hammond & Lieberman, 2012). Looking at the particularities of identity, inquiry and pedagogy can be a fruitful place for intimate scholarship (see Hamilton & Pinnegar, 2016), the kind of scholarship that provides insight into the personal practical knowledge teacher educators hold or are developing about preparing teachers, since without this scholarship such knowing is absent from the academic discourse. Indeed, through intimate scholarship such knowledge can be strengthened and presented in ways that can be viewed as influential enough to move teacher education forward. We define intimate scholarship (Hamilton, 1995) as work conducted from an ontological orientation developed in a coming-to-know process that emerges in and is authorized through dialogue (Hamilton & Pinnegar, 2014).

For teacher educators deeply engaged in designing and enacting practices that support the development of new teachers and simultaneously studying teaching and teacher education, subjective research methodologies allow the development of understandings and make needed contributions to the research conversation. Indeed, utilizing more intimate methodologies allow such researchers to uncover and excavate their tacit (Polanyi, 1967) and practical knowledge (Clandinin, 1985; Clandinin & Connelly, 1996) developed in the present moments (Stern, 2004) of their practice that may remain hidden from those using other forms of research. Such research is intimate because it always involves our own understandings of ourselves and our experiences in relation to those we educate and our imaginings about those they will educate.

Identity, Inquiry, and Pedagogy Influence and Inform Teacher Educators in the University

There has been dramatic movement socially and politically around the world in the past ten years and as a result of this movement countries increasingly turn to the education of youth as problem or resource. When this occurs the conversations often turn to a focus on the terrain of teaching and teacher education (for example, UNESCO, 2004, 2005, 2006, 2008, 2010). These discussions, though loud and insistent, seem to remain static and the map of concerns shows little differentiation or extension. In other words, there seems to be a continual rehashing of concerns with teacher education without concomitant attention to the actual landscape of teacher education in individual countries. Moreover, this litany of recommendations fails to consider the kinds of progress that understanding the development of teachers and teaching have been made. Orland-Barak and Craig (2014, 2015a, 2015b)

have developed such a response exploring the pedagogies of teacher educators across the world. While teacher education and related research are in fact global concerns, researchers in this field sometimes ignore the international nature of the enterprise and fail to take into account the nuances of meanings from results provided by the context of the country where researchers conduct their research (see Hamilton & Pinnegar, 2013). As intimate scholars oriented to the ontological, we recognize that when teacher educators fail to notice the particularity of the work or to examine research findings as local knowledge, they then fail to realize the richness and variability that context imbues in such studies.

When researchers recognize the influence and contribution of context to findings, alternative explanations for results and understandings emerge from international inquiries. When we question results not in terms of validity but in terms of context, we wonder about teacher education practices in a particular setting. Addressing this wonder brings teacher educators to new and different questions. Looking globally in this way as intimate scholars we wonder what we can learn about the terrain of teaching and teacher education and its related research. To consider the implications of these wonderings requires an exploration of texts focused on comparative studies of teaching and teacher educators—texts that focus both more generally on teachers and teacher education, as well as studies that focus more specifically on methodologies.

Weaving the literatures of Shulman and colleagues (Shulman, 1987 & see <https://www.en.wikipedia.org/wiki/LeeShulman>), Ball and colleagues (e.g., Ball & Forzani, 2007, 2009), Korthagen and colleagues (Korthagen, 2004; Korthagen & Vasalos, 2005), along with the works that take a transmission model toward teaching and teacher preparation, while considering the contexts from which such work emerges, teacher educators come to new understandings of teacher education and scholarship in this field. Additionally, we juxtapose the works of Fenstermacher (1986, 1987, 1994), Dewey (1933/1993, 1938/1997) and other teacher educators engaged in intimate scholarship: a scholarship of enactment.

When we examined issues of identity in the earlier handbooks of research on teacher education (Houston, 1990; Sikula, 1996), such studies labeled these investigations as explorations of beginning teacher development or the learning-to-teach process. Such work tended to focus on teacher thinking, beliefs of new teachers, processes of becoming teachers, and challenges routinely faced exploring metaphors that guide development. In the Cochran-Smith, Feiman-Nemser, McIntyre, and Demers (2008) handbook, teacher identity as a theme in research on teacher education emerged. In that text, Rodgers and Scott (2008) argued that the earlier research had subsumed these categories and moved forward as theorists took a greater interest in who teachers were as people. However, this research still focused on teacher identity with little attention to the role or place of teacher educator identity development. In the *International handbook of self-study of teaching and teacher education practices* with its focus on the S-STEP research and with the aim of making tacit ideas explicit, recognizing teacher educators as critical participants, and seeking an orientation toward improvement marks the emergence of research that explores identity formation among teacher educators (see Loughran, Hamilton,

LaBoskey, & Russell, 2004). Although initial research focused mostly on static notions of teacher identity formation attending to role enactment or Erikson's (1980) conceptions of identity, such work has since moved forward with more complexity.

In this chapter, a twenty-first century examination of these issues, we push these concepts further. Specifically we look across the literatures of identity and inquiry to explore the places where, as teacher educators, we argue that experience in identity formation is a rich source and site for intimate scholarship with potential to contribute to research on teacher education and teaching (see Hamilton & Pinnegar, 2016). As we examine the research on teacher educators, we look at how identity and inquiry represent and shape that place with the recognition that wherever they are in the world, there are pressures and questions and critiques about what *ought to be done* and what they *should do*.

We also remember that they often have roles in their institutions beyond their classrooms. Importantly, we cannot understand teacher educators, their identity and their views of inquiry without turning first toward teacher education. In many ways we could say that teacher educators prepare themselves for their profession so that their preparation for teaching becomes critical to understanding how we perceive their identity and inquiry (see Arizona Group, 1995). Such research is intimate because it always involves our own understandings of ourselves and our experience in relation to those we educate and our imaginings about those they will educate.

Practice as a Purpose of Teacher Education

Teaching and teacher education is anchored in and by practice. As teacher educators, hopefully our own practice develops and strengthens as we engage in our work and model for preservice teachers ways to take up practice (for a discussion of the importance of developing better rather than best practice, see Bullough, 2012). A fundamental responsibility and commitment of teacher education and teacher educators is the preparation and education of new teachers. Obligations toward the students of our students (Arizona Group, 1997) represent an overarching component of this responsibility and commitment to the preparation of teachers that teacher educators feel. Whether that moral purpose is about making a difference or having an obligation, it weighs on most teacher educators and serves as the ethical basis from which we/they construct our identity as teacher educators and from which we act.

As we engage in teacher education, inwardly we imagine the children our students will teach and consider the educational experiences we want these soon-to-be teachers to enact. This perspective toward unseen children influences us – seemingly present in our peripheral vision and as background in deliberations about programme development for and in interaction with our students. Indeed, as we and other teacher educators prepare new generations of teachers, we feel the ethical press and the moral and ethical claims of these future students. Constructing strong

practices with our students and educating them to build strong educational experiences and develop educative environments for their students becomes our purpose as teacher educators.

Exploring the purpose of teacher education, the obligations and commitments of teacher educators, and the fluidity of teacher educator identity formation, fundamentally anchors teacher education and related research in practice. As teacher educators we orchestrate programmes, design activities, and construct courses that enable future teachers to develop their own practice as well as teach themselves to be teachers. We also engage in our research conducted from our position of knowing and doing teacher education within the framework of intimate scholarship. This frame informs our work as we excavate understandings of experience and practice using a variety of strategies and/or methodologies. In one example of intimate scholarship, LaBoskey (2012) provides insight into this layering as she examines the practice of her former students to better understand her own teaching practice with current students. In another, Feldman (2006) uses existential argumentation to examine how his experience as a teacher educator led him to resist attempts at his institution to dismiss the rigor and value of teacher education. In moving this knowing into doing, he found new courage to advocate for himself and for the preservice teachers he taught. His arguments provide impetus for action and insights into being a teacher educator that can enable others of us to shift the discourse about teacher education.

Lovin et al. (2012) engaged in a study grounded in intimate scholarship to explore their beliefs as teachers of mathematics becoming teacher educators. In their examination, they realized that while they knew a lot about teaching mathematics from a reform paradigm, the field as a whole lacked similar understandings about how to prepare teachers to take up reform practices in ways that best support preservice teachers. Living alongside teachers, students, and community members, Huber and Clandinin (2005) demonstrated the intersecting trajectories of experience and meaning-making as captured through their exploration of a school field trip during a narrative inquiry. Engaging in narrative research, Murphy, Pinnegar, and Pinnegar (2011) explored the ethical tensions that past narratives introduce into current understandings of selves as teacher educators. Using the tools of narrative inquiry and the perspective of Schwab's practical, Craig (2013) traced the concept of the teacher's best-loved self. She explored those practices that teacher educators might engage in support teachers in fostering their best-loved teacher selves. In their autoethnography, Coia and Taylor (2013) demonstrated how early theoretical understandings about feminism shaped their practice as teacher educators and how their practice as teacher educators shaped their understanding of feminism.

This series of research examples demonstrates the promise of unique understandings in the examination of ideas when we utilize intimate scholarship through research methodologies such as S-STEP, narrative, narrative inquiry, autoethnography, action research, reflective inquiry, or memory work. Examinations of knowing, doing and becoming teacher educators conducted within such methodologies bring new knowledge to teacher education.

Knowing Practice as Contribution to Teacher Education Scholarship

The recognition of knowing as a teacher educator in the doing of teacher education shifts what kinds of knowing are of most value to teacher education and teacher educators. In developing understandings of practice that inform research on teaching and teacher education, inquiries into experience, practice and knowing and doing as teachers and teacher educators require methodologies of research oriented toward intimate scholarship (and the knowing, doing, and becoming of the teacher educator (Hamilton & Pinnegar, 2016) acting within teacher education practice). More recently, some researchers (see for example, Ball & Forzani, 2009) in the United States have suggested that a narrower view of teacher education would be a more productive approach to preparing teachers and argue that practice should be the purview and focus of teacher education. In contrast with our view, this alternative approach looks narrowly at practice as a way to generate selected teaching techniques where teacher educators train preservice teachers to enact practices in a reprise of Kagan's (1992) call to train teacher candidates rather than educate them. Presented as straightforward practices, the claim seems to be that if we identify universally useful practices and train future teachers to enact them, adjustments from student-to-student, context-to-context, are easily accomplished.

From this vantage point, if prepared well in these techniques and practices, these beginning teachers will enter the classroom unprepared to deliberate or navigate the complexities of knowledge and learning or the variations of context but to precisely enact the practices taught. This orientation to practice ignores the nuances of Schwab's (1970) description of the holistic nature of practices and the kinds of deliberation teachers need for successful teaching. It asserts teachers/teacher educators' supremacy of position.

We juxtapose an opposing view, where teacher educators' support teachers in teaching themselves to teach, responding to nuances, and integrating children, context, and content. The contrasting view described above where teacher educators train preservice teachers in specific practices and evaluate the precision with which they enact the practice regardless of context, child, and/or content produces (we use this word strategically) teachers who can enact practices without developing understandings of the experience of teaching, the elements to which they might attend, how to adjust and learn from experience or how they might consider their own personal practical knowledge. Even if they do reflect upon their practice, attending to its fidelity to training, we suggest that such reflection serves to instantiate the institutional grip and narrowness of the prescribed view of teaching as a set of practices to be generally deployed. Stephen Ball (2003) argues that teachers currently often regulate themselves in enacting prescriptive practices because being inculcated in such practices leads them to judge themselves as incompetent as teachers when they veer from the practices they learned.

Bullough (2012, 2014) in a series of articles argues for the need to consider what kind of teacher education (preservice and professional development) sustains rather

than limits the life experience of being a teacher. This recent orientation to teacher education that trains preservice teachers to enact best practice reverts to an orientation of research on teaching and teacher education grounded in an abstractionist ontology and epistemology and reifies a positivistic orientation to research. In other words, it is an ironic movement backward away from what we have come to know and understand about the teaching that sustains students and their teachers.

We argue here that teacher education, anchored in practical knowing and practice, is better served by an orientation to research that embraces intimate scholarship and simultaneously contributes to the practices of teachers, teacher educators and teacher education programmes as well as contributes to research on teacher education. We argue here that fundamental to research on/in teacher education is an understanding of practical knowing. There are three ideas about practical knowledge that inform those engaged in scholarship for educating teachers. Noel (1993) argues that extant ideas about practical knowing in educational research that seeks to understand teacher (or teacher educator) knowledge share commonalities but different orientations. She highlights certain similarities: "... content of the practical as the interaction between situational and personal aspects of the teacher and the teaching situation; methods as concepts of deliberation for specific decision making; and various approaches to guiding principles of the practical" (p. 1). Each conception enables us to consider the ways in which practice and the practical anchor teacher education and how exploration of this knowing and doing contributes to research in teacher education.

The first notion we explore is personal practical knowledge as defined and proposed by Clandinin and Connelly (see Clandinin, 1985; Connelly & Clandinin, 1984, 1985). Their work identifies the kinds of knowledge that inform teachers and teacher educators in their practice and that reveal its holistic quality. Second, we consider the works of Merleau-Ponty (2013), Polanyi (1967), and Stern (2004) as these researchers offer another look at embodied knowing. Finally, we fit the assertions of Fenstermacher (1986, 1987) and Noel (1993) about practical arguments into this discussion as they articulate the coherence of teachers' practical knowledge uncovered through an examination of such arguments.

Personal Practical Knowledge

Personal practical knowledge emerged as a concept as Clandinin (1985) sought to understand teachers' language in accounting for their knowing of and accounting for their practice as teachers. Connelly and Clandinin (1984, 1985) argued that knowing and acting united within a person and becomes evident in the teacher's account of teaching because personal practical knowledge comprises all that goes into, "the make up of a person" (Clandinin, 1985, p. 361). This knowledge develops in the circumstances of teaching from the actions as well as the emotional and relational significance of these actions. Using the word personal in the name signifies that the person and context involved in this knowledge includes all that a person

brings into teaching – the character, the past, the present and the future. (See Ross & Chan, Chap. 1, this volume for an elaboration on these ideas.)

What people say and how they act – in the stories they tell and the comments they make about their teaching practice – reveals this knowing. The ‘knowledge’ in personal practical knowledge refers to the convictions that a teacher holds in teaching and in interaction with others involved in the practice. This knowledge grows with experience, including intimate and social interaction as well as the traditions and background of the person. Teachers’ actions and their accounts of their experience, actions as a teacher, and stories told about their teaching all express the knowing. Specifically, they argued that all the experiences that are part of a person’s being compose personal practical knowledge. Rather than conceiving of the elements of knowing that a teacher brings to teaching as being made up of separable constituent parts (Shulman, 1987), personal practical knowledge encapsulates the holistic quality of such knowing to inform the doing and becoming in teaching.

This conception of knowing recognizes that experience, past knowledge, ethical commitments, and emotional understanding synergize to guide teachers in their teaching. The organic quality of this knowledge allows teacher educators to recognize that preservice teachers bring personal practical knowing into their preparation as teachers since it includes their beliefs about students and learning, their understanding of content, and their desires and commitments to teaching. Personal practical knowledge is shaped by experience, and captured in storied accounts of decisions to be teachers and actions in teacher like roles. This personal practical knowledge continues to emerge and develop throughout their teaching lives, as teachers make meaning from experiences and seek information to enhance content they teach, and the relations they have with their students, their community, and their families.

This conception of personal practical knowledge presents a complex and nuanced view of how, and from what perspective, such knowledge might be shaped. Though complex, its very complexity provides entry points for understanding the actions of teachers as teachers and makes clear that density, complexity, and potentiality for influencing the knowing and ultimately the doing of teachers. Moreover, this conception enables teacher educators in their considerations of how they might transform the practice of future teachers and explore their own knowing and doing within their own practice as teacher educators.

Embodied Knowing

The personal practical knowledge that informs teaching is embodied knowing, much of which is tacit. Clandinin (1985) has argued that personal practical knowledge becomes visible in the way we enact our teaching practice. Routines we use, assignments we construct, responses and interactions we have from/with colleagues and students, and lessons and experiences we have all reveal our knowing. Accounts of the what, how, and why, as well as our feelings about and in our teaching—our stories -become ways to reveal our tacit knowing.

Polanyi (1967) and Stern (2004) both provide insight into how such knowing emerges or develops. Such knowing emerges in experience, with emotion, commitment, desire, belief and enactment all contributing to this knowing. Our interpretation of action, our response and the response of others to it also shape and inform this knowing. Still, this knowledge can remain hidden if not brought to consciousness. The telling of stories can surface that knowledge in ways that other activities cannot.

Merleau-Ponty (2013) argued that our bodies and actions can reveal our knowing. In teaching we enact our practices in a busy and interactive, public space. Things happen in classrooms that require immediate response. In fact, many things happen simultaneously, requiring a short response. Teachers rely on their personal practical knowledge, the content knowledge and their embodied knowledge – developed through experience – how, where, why and what we respond builds the knowledge that supports teachers and teacher education in the desire to be present to our students (Rodgers & Raider-Roth, 2006). This presence requires that our attention focus intently on students and the circumstances, and guides us in taking the required action. Being able to act in such settings on routines and practices frees up space, which allows us to be present to students in our moment of interaction with them. Thus uncovering what knowing, commitment, desire, and emotion embodied in our action promises development of deepened understanding for teaching.

Stern (2004) argues that such knowing develops in present moments as we move into consciousness. We live our lives not in great gulps but in moments. As we act in these moments we build up this store of embodied knowing. He argues that our lived experiences are made up of small momentary events, present moments, or ‘nows’. In these moments change occurs and our lives unfold. Furthermore, he asserts that change occurs because in the present moment we participate in events that can either positively or negatively impact the rest of our lives. In a present moment, as we bring a past experience forward and reconsider it in this moment, we may reinterpret, relive, and retell, coming to new understandings that have the power to both reinterpret the past and propel us forward into the future. As we act we move from consciousness to non-consciousness, attending to both—what and when we come into consciousness and what and when we act in non-consciousness within our teaching practice are both sources for our knowing as teacher educators and fruitful venues for exploring and learning what we know and might contribute to research in teacher education.

Practical Knowing

Fenstermacher (1986) proposed that teachers could better understand their practice if they use a formalized exploration process of practical argument. The practical argument allows teachers to present their understandings of their practice that could expose conflict between their word and their action. In a way this could be

considered the relation of one's living contradiction – those tensions between what you say you do and what you actually do. A practical argument allows a way to understand how knowledge based in an oppositional epistemology can end up in action—thus how empirical findings can effect practical action. When, “findings generated in one epistemic and value context [can be] applied to a quite different epistemic and value context” (p. 357). Through explorations of practical arguments, teachers can reveal the contradictions in their thinking and explore how and why they act as they do. Tracing practical arguments found in their thinking about their teaching provides a strategy that teacher educators and teachers can use to both reveal and refine their practical knowing.

As we have argued, teacher education is anchored in practical knowing. From this perspective, the kind of scholarship that would hold the most promise in informing research in teacher education, would not be research conducted from an orientation toward generalizability and warrants for knowing. Instead, scholarship that takes up the perspective of the person in action and privileges learning from experience by exploring and interrogating it, opens possibilities for exploration into what might be known about educating teachers and the knowing and doing of teacher educators. Taking up scholarship from this perspective, exploring and excavating practice and the space between the practitioner and Others engaged in the practice, making the private public by exploring and uncovering the meaning in doing, from the perspective of the actor, could be useful. It also represents a space of great vulnerability. This kind of scholarship carefully examines the particular with an orientation toward ontology rather than epistemology with dialogue as a coming-to-know process. Scholarship like this we label intimate scholarship because of the nature of the particular, where work centers on the particular – person, context, experience – and requires a willingness to be vulnerable in a public setting.

Practical Knowing and Professional Identity

Drawing on psychological understandings, professional agency can be described as internalised mental models, located within individuals who have particular professional roles and identifications. Over time, these internalisations may shift in response to external events, or may be constructed through personal reflections. Individuals may have multiple possible selves with some preferred over others. In contrast, socio-cultural perspectives on professional identity suggests that it develops in response to social and cultural values, norms, discourses and practices of the context in which individuals work. These professional contexts can be understood as normative, with those in authority having an interest in the professional community upholding the norms, which may present pressure to conform and deny occupational groups agency and voice (Rodgers & Scott, 2008). Common to socio-cultural understandings of professional identity are the ideas that it involves ongoing interactions among biography (personal and professional), views of self, agency and social structures, and that it is a site for constant renegotiation over time

(Feiman-Nemser, 2001; Flores & Day, 2006; Gee, 2000). While some may disagree as to the relative importance of individual agency and cultural/social interactions as the prime determinants of identity, most share Taylor's (1989) view that, "self can never be described without reference to those who surround it" (p. 35).

From a post-structural perspective, professional identity, which can be thought of as a form of social identity, is not a single entity. It may consist of 'multiple selves' or subjectivities, all of which are contestable and subject to change over time in response to historical, social, cultural and psychological circumstances. In particular, professional identity must be seen in terms of the group politics that give form to it, as well as the emotional, value-laden discourses of belonging that help construct it.

Position of Teacher Education

Although the historical structures of teacher education programmes worldwide have been challenged and subject to change over recent years, the settings in which these discourses are played out have varied. In many contexts, the neo-liberal reformist agendas that have dominated the politics of higher education in most western countries over the last two decades has sought to transform education into a commodity market. This has taken different forms: in some locales attempts to reprofessionalise teacher education have relocated into the academy with the ostensible intent to increase academic rigour. In other locales, teacher education has been relocated to public schools.

In the wake of fiscal constraint and institutionalised austerity, moves to drive structural reform include institutional amalgamations, cultures of compliance, staff cutbacks and redundancies, changes in pedagogies and modes of teaching delivery and shifting priorities. Inevitably many teacher educators have reexamined who they are, what they stand for and value in their roles, and whence they derive their feelings of professional agency. Within a British context, a study by Brown, Rowley, and Smith (2014) highlights some of the challenges to professional identity for teacher educators working between institutions.

Positioning as a Teacher Educator

While mindful of those national differences in political and policy agendas, we argue that teacher education and the study of it is not just about practice but the practical (Orland-Barak & Craig, 2014; Schwab, 1970, 1978) where we reveal our doing (our action, our practice) our talk and our story of our experiences (Clandinin, 1985; Clandinin & Connelly, 1996). What we examine more carefully here is how our positioning within teacher education as teacher educators opens particular vistas and venues for productive intimate scholarship that is obscured, blurred or irrelevant to explorations of teacher education conducted from a modernist perspective.

Cochran-Smith (2005) argued that in the *new teacher education* we need to conduct studies that look across institutional contexts so that what researchers uncover is generalizable. She argued that only when we have in hand knowledge based in positivistic criteria for knowledge including randomized sampling, statistical analysis with large data sets, sampling multiple institutions and consider teacher education in general as the context will the knowledge of teacher education and teacher educators be taken seriously. Further, it is only this kind of validated generalizable knowledge that will allow us to build the needed *new teacher education*. From her perspective and that of others, teacher education is under mandate to meet this challenge. As teacher educators, we need to develop and apply generalizable knowledge developed from a modernist epistemological and abstractionist ontological perspective to reform our teacher education programmes.

When we consider this notion of re-form, we consider it against Greene's (1999) notion of releasing the imagination. Reform as a term suggests not 'new' but a reformation or re-arrangement of what is already present. In contrast, Greene's idea that what we can know from a modernist perspective provides only a horizon against which we can consider the deeper knowing that emerges from intimate scholarship. It is in this space between seeing large and seeing small that imagination is released. In their final chapters, Clandinin et al. (2006) demonstrated how looking across the far horizon (seeing small) of research on dropouts is imbued with radical new insights and generates unusual provocative new questions only when juxtaposed against their inquiry (seeing large) into the lives of diverse children in elementary school. From their work, we see how similar work within teacher education brings large-scale work argued for by Cochran-Smith against work that sees teacher education and teacher educators large, such as the work by Lovin et al. (2012). This work raises new questions about differences between understanding learning from mathematics by children and teachers and the understandings of teaching teachers held by teacher educators. Or, examining work about teacher learning against Brubaker's (2011, 2012, 2015) study of negotiating assignments with preservice teachers opens our imagination concerning how experiences like those of Brubaker's students shifts the terrain of the learning to teach process anchored in shifts in the pedagogical experiences of teacher educators and preservice teachers.

We assert that to reimagine and develop contexts, programmes, and practices in teacher education in the preparation of strong teachers, the greatest hope comes in understanding the particular. In developing trustworthy accounts of inquiries conducted from the perspective of the person deliberating on the competing demands of practice and orchestrating their work (practice, programmes, assignments, assessments) in particular ways, teacher educators can provide the kind of knowing most helpful for doing teacher education and becoming teacher educators. Studies grounded in intimate scholarship are necessary (Hamilton & Pinnegar, 2016). Through intimate scholarship, teacher educators can provide examinations and inquiries into their practice (doing) and uncover their knowledge and evolution in teacher education and as teacher educators.

In intimate scholarship, as the aforementioned studies along with Clandinin, Davies, Hogan, and Kennard (1993) reveal, teacher educators can examine the ways

that the mega-studies proposed by Cochran-Smith (2005) apply or not. Similar work where teacher educators explore their knowing in educating preservice teachers that emerge from large scale studies of the results of training teachers open new questions for teacher education. They provide a relational ontological basis that can guide judgment concerning teacher education, teacher educators and the ethics that ought to underlie teacher education. Such intimate scholarship explores which particular studies in developing educative experience might enable intimate scholars to uncover perspectives about knowing and doing teacher education (for example, Bullock, 2009; Mansur & Friling, 2013). This scholarship links the research conversation in teacher education to personal experience concerning shifts in becoming teacher educators within the contexts of their own practice. What we argue is that well-orchestrated, designed, conducted and reported intimate scholarship potentially provides more profoundly helpful knowing for doing teacher education and becoming teacher educators. Such studies allow teacher educators to deliberate about the dynamics of their own contexts, students, obligations and commitments in relationship to the understandings provided by such studies. As Greene (1999) noted, through such deliberations the imagination (of both the intimate scholar conducting the study and the teacher educator examining the study) is released. Shifts in current programmes produce radical transformations in practices and new avenues for inquiry are opened for consideration.

Moreover, we argue that not only is intimate scholarship a useful orientation to inquiry to transform teacher education, but also that the shifting ground of practice emerging from the uneasy positioning of teacher education in the academy provides fertile grounding (see Davey, 2013). Examining carefully our knowing and doing as teacher educators within particular programmes, in particular places, with particular students engaged in particular experiences can better inform teacher education than studies that come divorced from contexts with findings presented as generalizable.

Positioning Teacher Education and Educator Scholarship Internationally

Research in teacher education spans the world (see Zhu & Zeichner, 2014 or Orland-Barak & Craig, 2014, 2015a, b). Yet, a question that should plague the work is whether researchers attend carefully enough to the variation that context produces in the application of research in one country to research in another. In a series of short pieces, Hamilton and Clandinin (2010, 2011) critiqued this phenomenon and explored the implications for research in teacher education. Too often in this current climate, researchers across the world draw on research across international boundaries (often relying heavily on work from the United States) and apply it to reasoning in their own cultural context as if we now work in a global culture. They ignore the notion that while issues of concern may be shared across national boundaries, there is local variation (Anderson-Levitt, 2003) addressing the dynamics of

the situation within particular cultures or countries. While researchers have always argued context matters, they routinely apply findings from one context and situation to another that is quite different.

It seems that if the underlying issues are shared there is an assumption that studies on that issue can be applied anywhere. Reports from UNESCO (see, for example, 2004, 2005, 2006, 2008, 2010) provide clear evidence that there are shared issues, one example of which is the quality of teacher education (see Russell & Martin, this volume.) Using intimate scholarship, Berry (2007) demonstrated that there are indeed similar quandaries that entangle intimate scholars yet the breadth and depth of understanding of teacher education can be limited when scholars fail to recognize that local variation and context matter. They matter for the study being conducted and for other scholars who resonate with the findings of a particular study and want to use the ideas to respond to particular situations within their own setting.

Hamilton and Pinnegar (2013) explored the phenomenon of the dominance of the American research voice in the world conversation and the lack of practical action that attends to shifts in context and culture across international and institutional boundaries. They explored ideas that hold currency in research on globalization. Specifically, in this work, they assert that while issues transcend national boundaries and the problems of one country may share themes and concepts with another, generalizing findings from one country or culture to another must attend to local variation around issues related to the research and to the cultural context where they hope to apply the findings. Those who hold notions of a global culture argue that either through evolution or economic dominance, all countries of the world share that culture. In contrast, another more tenable position is that as a result of globalization and the fact we are all human, where issues in one culture or country can crop up in another, findings from research can help us reason about these issues. Unless we attend to the context of findings and the context where new research may be initiated, researchers can do damage to the ideas and limit what might be learned (Hamilton & Pinnegar, 2016).

Some would argue that, in many ways, conducting large scale studies across multiple institutional boundaries erase context as a factor. However, Putnam (2005) asserts that such findings from the social sciences have been of little use in solving or even responding well to the intractable problems of the world. Polak's (2009) work on helpful responses to poverty demonstrates this phenomenon. He argues that when social scientists enter a setting and desire to alter it, the usual first step includes an extensive exploration of context whereby they draw understanding of the situation from those most deeply and closely involved. The next step involves a broad sweep of ideas from research. In turn, they attempt to integrate specific local knowledge with more generalized knowing in pursuit of potential ways to respond to particular situations (Polak, 2009).

In making a similar point, Putnam (2005) explained that careful attention to the particular, wherein a scholar in one setting can contemplate application of results within another context and vice versa, can contribute to the experience under consideration. Milan Kundera (1980) argued that repetition is the second infinity. Using

the example of a pianist, he points out that each time a piece is played results in a unique rendition of the artistic work. With each iteration the pianist highlights different features, uses different phrasing and communicates different affect and emotions resulting in a different resolution to the piece.

Grounded in ontology intimate scholarship insists that context as well as understandings that emerge be made explicit and positioned to contribute not just to scholarship but to practitioners grappling with problems across international and cultural settings. Teacher education and teaching occur repeatedly within a particular setting and across institutional and international boundaries. Thus work that explores a particular experience in a particular place at a particular time provides opportunity to excavate this second infinity. In the process, researchers enrich the research conversation on teaching. Examining variations in practice and the knowing/understanding from the perspective of the particular has the potential for transformation of our practice, who we are as teacher educators and our collective understandings of research on teacher education and teaching.

We argue that exploring particular local variation gives us understanding of how things might be different or how our own context could be shaped or shifted slightly to accommodate practices from elsewhere. Importantly intimate scholarship can reveal disasters, disappointment and/or success, all of which can inform us. (For other examples, see Placier's (1995) self-perceived fiascos in her classroom; Brubaker's (2010, 2011, 2015) negotiations with students' work and Lovin et al.'s (2012) exploration of tensions regarding beliefs in a mathematics education classroom.) Inadequacies as well as failures as well as triumphs inform our knowing, especially when we clearly articulate deliberations, responses, shifts, and understandings within our inquiries. We learn from the disasters as well as the successes of others, since such reports allow more complex and nuanced positioning from which our work as scholars and educators can proceed.

Identifying as Teacher Educator: A Not-So-Simple Question of Definition

Here we turn to a few thorny issues of definition regarding the terms we have used in this chapter: 'teacher educator', 'identity', and 'professional identity'. Who are the group we call teacher educators? What do we know about the nature and factors affecting the development of their professional identity? Previous discussion in this chapter has highlighted the ways in which intimate scholarship offers a powerful way of understanding the work teacher educators do and requires brief consideration to fully understand the potential contribution of explorations by teacher educators.

That teachers matter, and have a profound influence on student learning (Darling-Hammond, 1997, 2006; Hattie, 2009) is an axiom in the research literature on schools, teacher education, and schooling. This robust literature highlights the

importance within schooling of teacher thinking, knowledge and decision-making (Elbaz, 1983, 1991; Schön, 1983; Shulman, 1987), teacher identity (Connelly & Clandinin, 1999; Day, 2004; Day, Kington, Stobart, & Sammons, 2006; Korthagen, 2004), the professional/personal nexus in teaching (Hargreaves, 2001; MacLure, 1993; Palmer, 1998), and the sociocultural aspects of classroom culture (Bishop & Glynn, 2003; Darling-Hammond, 1997; Ladson-Billings, 1995).

In other words, what teachers think, value, believe, who they are, and how they relate to learners and others as a professional community matters (see Fenstermacher, 2001; Fenstermacher, Osguthorpe, & Sanger, 2009; Osguthorpe, 2009; Sanger & Osguthorpe, 2011). By extension, we assume that the same aspects matter in relation to teacher education and teacher educators. If the quality of teaching in schools is determined in large part by who teachers are and how/what they teach, then the quality of teacher education is equally determined by who teacher educators are, what they believe, value and by what they know and teach. And given claims that who teaches teachers influences teacher learning as much as actual curriculum content, teacher educators are increasingly being recognized as crucial to the preparation of future teachers educating students for the demands of the twenty-first century (see Darling-Hammond, 2006). Yet despite a burgeoning of teacher education research and literature over recent decades, gaps remain when it comes to the study of teacher educators themselves.

Context, Responsibility, Vagueness and Definition

As Loughran (2011) and others have stated, one problem in writing about the work and professional lives of teacher educators comes in defining of the term itself – what it implies, who it labels, and who lays claim to the title. Historically, the term teacher educator has been problematic, ambiguous and differently defined over time and place. While there has been a rich literature about teachers, there has been little to match this literature on the subject of teacher educators until more recently. In what early literature exists, a common theme emerges around vagueness of definition, compounded by persistently pejorative discourses around their status within the academy, highlighting a lack of desirability of self-identification (Ducharme, 1993; Tischer & Wideen, 1990; Zeichner, 1999). Several decades on, recent shifts in the location, provision and nature of teacher education, has only served to reinforce an ongoing vagueness about the term. The problems of identification and delimitation with respect to who is, and is not, a teacher educator have persisted to the present (Davey & Ham, 2010, 2012; Murray, 2014). The label of ‘teacher educator’ as a role, job designation or title is still clearly problematic internationally, not least because of institutional and international variation in the nature of teacher educators’ work, their responsibilities and their varying degrees of involvement with student teachers and the contexts within which they work with them (Davey, 2013).

Clearly, acknowledging teacher educators as under-researched (Harrison & McKeon, 2008; Murray, 2014), and poorly-defined, and poorly understood group (Ducharme, 1993; Martinez, 2008; Mayer, Mitchell, Santoro, & White 2011; Zeichner, 2007) is not a new insight, despite the fact that teacher education itself has become increasingly positioned in the twenty-first century as a 'policy problem'. Seen as a lever for educational change in schooling internationally, teacher educators have both come increasingly under scrutiny (e.g., Murray, 2014) as well as being recognized as important catalysts and change agents. While much work on teacher educator identities has focused on those who worked in preservice education, more recent definitions have broadened to include studies of those involved in professional development of teachers beyond the induction stage, through to those working in partnership in schools with in school mentors. Those who do the work of teacher education in schools are also being redefined or redefining themselves as teacher educators, a group Livingston (2014) suggests "may be 'unrecognised' or 'hidden professionals'" (p. 226).

A decade ago, Zeichner (2005) and Loughran (2006), among others, highlighted the need to prepare teacher educators who not only consume but also generate knowledge through research on practice that adds to the scholarship of teaching and teacher education. Dinkelman, Margolis, and Sikkenga (2006a) argued these ideas as teacher educators involved in S-STEP work and suggested that these ideas had been instrumental in providing, "a powerful impetus for the growing body of research into teacher educator identity, competence and practice" (p. 7). We take this idea further to assert that engaging in intimate scholarship and privileging the particular supports a deeper examination of practice and the worlds of teachers and teacher educators and therefore offers the greatest promise for knowing and doing in such worlds.

This chapter attempts to address the gap in the literature of teaching and teacher education concerning teacher education and teacher educators knowing and doing by drawing together what we do know in order to add to our "rich mosaic of knowledge" (Martinez, 2008, p. 36) about the complex professional lives, practices and identities of that group we call teacher educators and the inquiry in which we engage to develop knowledge of teacher education practice that has the greatest potential to inform research in this area. We constitute and continually reconstruct multiple and ever-changing identities or subjectivities through the semiotic processes of language and within language. Seeing identity as a, "discursive activity" and a "communicational practice" (Sfard & Prusak, 2005, p. 16) we agree that identities form, "... in this shifting space where narratives of subjectivity meet the narratives of culture" (Zembylas, 2003, p. 221), where identity theory including post-structural identity theory emphasizes the flexible, discursive, shifting and ongoing nature of identity negotiations.

Context Matters

How one becomes a teacher educator varies across and within continents. In Australia, New Zealand, South Africa, and parts of Europe teacher educators enter the field through practitioner pathways and academic pathways. Elsewhere, such as in the United States and Israel, they follow an academic pathway into teacher education through higher degrees (Lunenberg & Hamilton, 2008; Murray, Swennen, & Shagrir, 2008), whereas teacher educators with a focus on secondary education in the Netherlands are teachers with a master's degree in a specific subject. In general, there is no formal professional path to become a teacher educator (Bates, Swennen, & Jones, 2014). The fact that "the profession of teacher educators is neither well-defined nor recognised as being an important profession with its own merits. This appears to influence the identity of teacher educators" (Lunenberg & Hamilton, 2008, p. 186).

Responsibility

To add to this complexity, the past decade or more has seen a burgeoning development of different routes into teacher education in many countries. The growth of professional development schools and partnership schools in the US and elsewhere has spawned the growth of 'hybrid educators' (Zeichner, 2006), teacher education has been opened up to privatization in many international contexts and economic imperatives have led to a casualization of the workforce. As early as 2002, Ling, for example, found that the sessional staff employed to teach in Australian teacher education courses were generally classroom teachers, either currently practicing, recently retired or enrolled as post-graduate research students; nearly all were part-time. Cochran-Smith (2003) notes many teacher educators are "part-time, adjunct, temporary, and/or clinical faculty and fieldwork supervisors; graduate students who supervise as part of financial assistantships or part-time jobs; and school-based personnel who work as site-based supervisors" (p. 22). As Cochran-Smith and others (see Lunenberg & Hamilton, 2008; White, 2012) note the growth of in-school teacher educators who work alongside preservice students in classrooms as mentors. Cooperating or associate teachers or teachers involved in the professional learning and/or development of colleagues along with a number of other school-located roles are also among the group who now may claim the title of teacher educators.

Writing from a UK perspective, Murray, Czerniawski, and Barber (2011) reinforce Ducharme's (1993) early comments about the broad and heterogeneous nature of teacher educators as an occupational group. The result of the range and nature of the different institutions offering teacher education programmes, a government mandated requirement to work in partnership with schools, ongoing institutional

imperatives faced by teacher educators around the teaching, research and administration triad, the ongoing challenges of constant audit, performativity, accountability at policy levels that all academics, including teacher educators face, multiple pathways into teaching and teacher education. In other words, as responsibility and the location for preparing teachers continue to shift in response to government policies and reform agendas, so do the people taking up this work and claiming the title. The heterogeneity of the term has led to attempts to more finely differentiate among those doing the work.

Vagueness

In the Scottish university context and elsewhere (for example, Australia, Israel, New Zealand, South Africa) mergers between the old colleges of education and local universities have been identified as a ‘universalization process’ (Menter, Brisard, & Smith, 2006), what Menter (2011) denotes as teacher education ‘tribes’. In seven Scottish universities with teacher education programmes, he identified four ‘academic sub-tribes’ consisting of former college staff (FCS); longstanding university staff (LUS); newly appointed university staff (NUS) and temporary university staff (TUS). And if anything, the title of teacher educator has expanded beyond a traditional university context to include anyone working in a school, which has responsibility for the professional learning of ITE students and/or colleagues. This further problematizes identification, since the term itself can both be ascribed by others, via their institutional roles, and claimed by teacher educators themselves as part of their own self-identification and categorization.

More recently, teacher educators can be described as those who educate teachers Loughran (2014), but understanding the variability behind the title, the positioning and the power that comes with these identities are important to recognize. The increasing move to locate more teacher preparation work out in schools, particularly in the UK, means that it is important to distinguish among studies of in-school teacher educators and mentors and the development of professional identity within the schooling context.

Identity and Definition

In light of such complexities and variations around definition and self-identification, it can be argued that the professional identity of teacher educators will derive from and be dependent not only upon their biographies, values and beliefs, the nature and value of their different roles and professional work, and their affinities, communities and institutional positioning, but their national contexts and locales as well. As Hamilton and Clandinin (2011) contend:

While we recognize that notions of teaching and teacher education may be universal, how one teaches or becomes a teacher or teacher educator is not ... The preparation of teachers and teacher educators varies from country to country and in many instances, the preparation varies within countries, given the differences apparent in alternative certification programs. For example, who becomes, and how one becomes, a teacher educator is not universally defined across countries. (p. 244)

In other words, where teacher educators are recruited from and the conditions for access to the role varies from country to country (Lopes, Boyd, Andrew, & Pereira, 2014) and even within countries from institution to institution. Most importantly, these contexts impact the professional identities formed and the ways teacher educators approach their practice. Ironically, beginning teacher educators who come to that position without having taught are themselves first year beginning teachers and they bring to their practice of teaching teachers the same hesitations, misunderstandings, and difficulties with management, curriculum design, planning, and teaching that the teachers they are teaching will bring to their practice.

For the most part, however, those who identify as teacher educators came to teacher education to do teacher education and they are committed to that. Indeed, they stand in the space of practice and they look forward to the kinds of practice preservice students will develop. Schwab (1970) argued that knowing in teacher education centers on knowing of the practical, particular, situated, and local. He sees teachers and teacher educators as oriented toward resolving student dilemmas within their particular context while seeing ways to orchestrate and design experiences so that learning occurs. In his explanation of the particular, Schwab reminded us that unlike theoretical knowing that guides the social sciences, practical knowing involves a holistic sense that encourages teachers to attend to the whole child (or preservice teacher in this case) – including development, social background, current intellectual development, along with intentions and desires – as well as the content or understandings to be taught and the context in which the learning will occur.

Pathways in Becoming

In an early exploration of the pathway toward becoming teacher educators, the Arizona Group (1995) asserted that they taught themselves in their becoming teacher educators. They drew forward and integrated their personal practical knowledge as teachers and of teaching and the content and experiences of graduate school and their first forays into the practices of teacher education as teacher educators as graduate students. From this initial basis of knowing as teacher educators, they began doing teacher education and acting as teacher educators in roles as faculty members within the academy. In this process, they continued becoming teachers of teachers. Through this exploration, they came to three deeper understandings that have informed their identity-formation as teacher educators.

First, we never arrive, always becoming, with no point at which a teacher educator identity solidifies. Identity is always forming, never formed. Identity emerges from

knowing and doing and developing; a becoming process that deepens and expands our sense of the world and our places in it. In knowing as a teacher educator and doing the practice of teacher educator (in practicing teacher education as a teacher educator), the landscape shifts and seems uncertain. Our knowing forms a basis for acting as a teacher educator – surfacing our understandings, commitments, and obligations that inform our practice and guide our action in the space of teacher education. Furthermore, in doing teacher education – taking up and enacting our practice as teacher educators we confront what we know and believe through our actions and interactions. Knowing and doing form a basis from which to act; however in the knowing and doing who we are as teacher educators is ever subject to disruption, transformation, and emergence.

Second, looking backward and following our own development as teachers, we began to look at our students and ourselves, “with more loving eyes” (Arizona Group, 1995, p. 50). We remembered our own foibles, failures, and vulnerabilities. We recalled our successes, our sacrifices and our striving for perfection as teachers. We then saw the resistance, engagement, and development of this new generation of teachers from a deeper understanding of our own becoming. Seeing their resistance not as rejection or disengagement but as part of their pathway toward becoming teachers and shifting beliefs and ultimately action, allowed us to better respond and be more welcoming of their initial ideas.

Third, rather than resisting our student claims that they taught themselves to teach, we embraced and celebrated their right to own their claims. These three understandings positioned us differently in our identity as teacher educators, in our responsibilities in educating a new generation of teachers (in our practice as teacher educators) and in our inquiries into teacher education. We recognized that teaching is constantly an act of deliberation and judgment. We saw that there was much that could be contributed to research in teacher education through explorations into the ideas that intrigued us, the contradictions we experienced in our own practice, and the resolution of individual and institutional conflicts (Arizona Group, 2007). We recognize that we cast our role as teacher educators as one in which we teach teachers to teach themselves to teach and that what we bring to this task is knowledge that can educate the judgment of these teachers and position them to learn from their experience –as students and scholars, as citizens and as teachers.

Obligation as Teacher Educators

We have asserted thus far that teacher educators should recognize that teachers through experience (highlighted naturally by Dewey’s (1938/1997) characteristics of continuity and interaction) teach themselves to teach. In teacher education our role is to educate teachers’ judgment – about students, curriculum, the political and how and where they should change practice. Underlying this assertion is our belief shared by most teacher educators that they have a deep obligation not just to the education and experience of the pre-service teacher they face but also to their

students. In relationship to this consider Appiah (2006) who reminds us that as human beings we have, “obligations to others, obligations that stretch beyond those to whom we are related by the ties of kith and kind, or even the more formal ties of a shared citizenship” (p. xvi). In addition he also argues for another commitment: our need to take seriously the value not so much of human life in general but in the particular human lives—in our case the lives of those we teach. This means exploring deeply our own beliefs and those of our students. We are open to and welcoming of divergence in the beliefs of our students and seek to understand both their beliefs and their practices as a person. We have an expectation that as we teach teachers and as those teachers then teach their students universal concern for the well-being and development of our students, as preservice teachers, and our respect held for individual difference can clash with each other. This is a fundamental challenge within our obligation to educate teachers in ways that lead to their continued growth their personal willingness (and ours) to grow, change and continually strengthen and develop.

As teacher educators regardless of how we come to the role, if we seek to support our students in teaching themselves to be teachers, we must do as Schwab (1970) argued, and support them in learning the elements of the whole that they can enlist for student learning. Simultaneously, teacher educators must enable their ability to both attend to the whole and capitalize on and integrate strategies and techniques that will move this child’s learning or life forward in the ways the teacher desires. In a similar way, as we design learning experiences that support future teachers in learning how to develop their practice, teacher educators must also be aware of the whole, the parts within the whole, and the points of productive action. While we do this, we consider what experiences, lessons, readings, and assignments, might we engage in with our students in order for them to construct strong practices themselves.

Teacher educators and teacher education is clearly anchored in practice. It is also grounded in a relational ontology rather than an abstractionist one. The space in which teacher education practice is constructed is fluid and uncertain. In our practice we respond to the particulars of the dilemma. Thus, while there may be preferred ways of proceeding or preferred strategies, what teacher educators choose to do emerges through an evolving understanding of the particular students, content, experience, and context before them. Studies of this evolving practice not only build our identity as teacher educators and inform our own practice, but as we systematically examine our experience we contribute new understanding to the research conversation. Additionally, response in our practice attends to the emotional (Zembylas, 2003, 2005), the ethical (Kelchtermans & Hamilton, 2004), the intellectual, the relational and the contextual. What we do one time will form part of our deliberation but never determines fully what we, in our role as teacher and teacher educator, choose to do next or next time. Both the uncertain terrain of our practice and our decision to study it and make our knowing public leaves teacher educators vulnerable. Teacher education and our knowing of it as intimate scholars of teacher education and the contribution we might make to the research conversation must be based in and emerges from our practical knowing rather than positivistic research on practice.

Purpose/Position/Obligation

People differ from each other and there are many possibilities of how people become teacher educators and in what ways their construction of what that means differ. There is much to learn from our differences. Indeed, there are many possibilities worth exploring and we neither expect nor desire that every teacher educator or even every teacher education programme should converge on a single mode. In terms of scholarship focused on teacher education, such differences mean that there is much to inquire into and that the meaning, purpose, practice of individual teacher educators who have committed to teaching teachers suggests an endless array of studies.

The heart of our lives as teacher educators involves relationships. These relationships are often tenuous and always emerging. They are tenuous because of the myriad institutional boundaries we negotiate in our practice and in knowing and doing teacher education (see Hoban, 2005 for an examination of the systems that must be negotiated in preparing teachers). We work with teachers, usually not at one school but many, our programmes require support from other departments and we often are required to provide support for them. We work with State Offices and Ministries of Education and accrediting agencies to gain permissions and credibility for credentialing teachers. We work with multiple school districts. Within a college of education, teacher education may be orchestrated across department boundaries: elementary (or primary) or secondary education, curriculum and instruction, technology, special education. The names will vary depending on national contexts. In addition, in our colleges we work with a multitude of offices and personnel, all of whom often have veto power concerning the practices, programmes, and structures we believe are optimum. Even within teacher education departments we often encounter institutional boundaries when elementary education, early childhood, and secondary programmes for example might all be housed in one department. Actually as we 'do' teacher education, relationships with the parties involved and our engagement in and with them link the practices and programmes together. Relationships either grease the wheels or provide the deterrents to successful teacher education. Exploration of practice and programmes always involves others and the development of understandings concerning such relationships.

Teacher education is anchored, as we have asserted and demonstrated, securely in practice. But this practice is not abstract; it is concrete and it is human. Our commitment and obligations involve supporting teacher candidates in teaching themselves to teach. We seek to engage with them in the kinds of interactions that lead not just to their certification but also to their flourishing and ongoing growth as teachers. A tension always with our understanding of the challenges and difficulties faced by the student (future teacher) in front of us is the image we carry of the students this teacher will teach. Thus, as teacher educators, our concerns move beyond the efficacy and rigor of our own teaching practice and whether our students learn what we teach, to the whole of who students are and the relationships they need with others involved in their education and with us.

We recognize that preparing a teacher is not the task of us as an individual and we must care about the quality of those relationships. An examination of those relationships is part of what intimate scholarship can contribute. As important as teachers' knowledge of content for teaching is their manner as teachers—their own moral development and the way they communicate it to students (see, Fenstermacher et al., 2009). As teacher educators, we must be concerned with our manner and how we engage in practices that communicate our manner and support preservice teachers in their development. We care about teachers' emotional regulation and their ability and willingness to care for and about those they will teach (see Zembylas, 2005). Again, as teacher educators we must develop emotional regulation and care for our own students. We need more research on exactly how a teacher educator might do that in authentic ways to sustain teachers and teacher educators. We are concerned that we and they are able to communicate clearly and well—not just in terms of course content but also with other humans. We want them to feel grateful for the privileges they have experienced and be willing and capable of enabling opportunity and accruing privileges and fairness for their own students. Just as teaching is fundamentally relational; so, too, is teacher education. Intimate scholarship allows teacher educators to develop understandings in these areas that enable them to meet their obligations to their students (preservice and inservice teachers) and the obligations they hold for the students of their students.

Appiah (2006) has argued that through relationships we are able to negotiate the human and institutional boundaries that threaten to divide us in the cosmopolitan world we live in. We know that not all the teachers we prepare, and indeed almost all of them, will not be teaching in schools like those that educated them. They will not necessarily work with those they feel culturally most comfortable with, or those with whom they already share deep familial relationships. Just like us, the teachers we prepare will need to reach across difference for the development of relationship. We argue with him that teachers and teacher educators have obligations that, “stretch beyond those to whom we are related by the ties of kith and kind or even the formal ties of a shared citizenship” (p. xiv). It is the teacher's obligation to have the skills and understanding to stretch beyond these boundaries. As teacher educators, we need to both develop knowledge about doing this and exhibit that knowledge in our actions.

Further, Appiah (2006) argues that being able to embrace these obligations is not all that we must do. With him, we argue for our need and for the teachers we educate to, “take seriously the value not just of human life but of particular human lives, which means taking an interest in the practices and beliefs that lend them significance” (p. xiv). The teacher educator who embraces methodologies of intimate scholarship is positioned to enact and scrutinize such practices. The inquiries of teacher educators guided by intimate scholarship methodologies can take up these questions as they enact practices and explore the curriculum and pedagogies (Pinnegar & Hamilton, 2014). Through examinations of relationships and obligations across institutional boundaries with other faculty, teachers, administrators and most imperatively future teachers we educate contributions to research conversations on teaching open to us. Oriented toward a relational ontology, focused on the

particular, developed through dialogue and emerging from a space of vulnerability, intimate scholarship provides a unique position to develop deep and vital knowing to guide doing as teacher educators.

Engaging in intimate scholarship, focused on teacher education practice and formation as a teacher educator, the teacher educator seeks to develop knowing that can guide and improve her practice and inform the practice of others. Inquiries that developed from the orientation of intimate scholarship enable teacher educators to study what they begin to understand about how their practice can meet their purpose as teacher educators. Such scholarship carefully embraces and examines the uneven and shifting terrain of teacher educators' position in the education of teachers (both future and practicing). More than any other scholarship, intimate scholarship allows teacher educators to deepen understandings about our obligations to our students and their students. Moreover, intimate scholarship ponders the knowing and doing that informs us as we engage in continually becoming stronger teacher educators.

Given these perspectives on identity and obligation, what then is professional identity? With recourse to the work of Rodgers and Scott (2008) – who draw on three perspectives to argue for common conceptual elements of professional identity, Gee (2000), Davey (2013) and others who have theorized notions of identity and professional identity – a working definition of professional identity emerges. Professional identity can be thought of as both personal and social in origin and expression: On the one hand, one's personal 'self', or one's 'identity', consists of a self-assigned mix of beliefs, values, perceptions, experiences and emotions that constitute the way one sees one's own place in the world. On the other hand, identity or self is intensely socially and relationally situated, and is influenced by the political, historical, social and cultural conditions and discourses that operate among and around us. Professional identity is thus personally and individually perceived, but socially and culturally negotiated.

We suggest that identity formation is an ongoing process that continues beyond the initial years as a teacher educator, though the initial transition into teacher education is the site for most studies reviewed by those currently doing work seeking to understand teacher educator identity formation. While we will begin by examining work (particularly overarching reviews of this work), we also recognize that it is intimate scholarship since the researcher is often the researched. The focus of such work can often be prompted as a result of disruption to a sense of self or concerns about the relationship between who one is as a teacher educator and a commitment to preparing teachers. Wonderings about the interrelationship between the development of the teachers they teach and their own understanding of their knowing and doing as a teacher educator can be the impetus for intimate scholarship that reveals this ongoing development (see Craig, 2013; Feldman, 2006, 2009; Hamilton & Pinnegar, 2014). Our point is that ongoing identity formation experience of teacher educators continues to fuel their inquiries into teacher education, even once they can appear comfortable and even settled in their profession.

As we have noted, professional identity can be fragmented, as well as evolving and shifting in nature. It is not a singularity, but is composed of many elements and expressions that may vary from circumstance to circumstance. Some 'core' aspects

of it may be thought of as relatively stable and coherent compared to others, but all are ultimately subject to renegotiation and re-storying over one's occupational life. By its very nature, one's professional identity is always in a process of becoming.

Professional identity also involves emotional states and value commitments. Because of its socialized nature, powerful contextual forces operate to shape and constrain it, and this constant shaping necessarily involves levels of emotional commitment and resistance—to belief systems, to professional concepts or discourses, and to cultural norms. Professional identities are emotional geographies (Hargreaves, 2001) as well as personal histories. Professional identity comprises both how one sees oneself and what one values in oneself as a professional (Davey, 2013).

A further facet of professional identity is that it necessarily involves some sense of group membership, or non-membership, and identification with a collective. It involves not just how one sees oneself 'doing my job' as an individual, but also the commitments and affinities – or otherwise – that one feels towards others doing similar or different jobs. Thus the elements of individuals' identities and identifications that are common across those individuals may constitute something we could call a group or collective identity. One's sense of self as a member of a purposeful occupational community is a significant and necessary component of one's professional identity (Wenger, 1998; Gee, 2000).

Extrapolating then from Coldron and Smith's (1999) and Beijaard, Meijer, and Verloop's (2004) ideas relating to teacher identity, what teacher educators understand as the 'valued professional self' (Davey, 2013) can be understood as partly achieved by their active location in social space, which is defined as an array of possible relations to others, "some of which are conferred by inherited social structures and some chosen or created by the individual" (Coldron & Smith, 1999, p. 711).

In light of complexities and variations around definition and self-identification of teacher educators, it seems reasonable to argue that the professional identity of teacher educators will derive from and be dependent not only on studies of their biographies, values and beliefs, the nature and value of their different roles and professional work, their affinities, communities and institutional positioning, but also on their national contexts and locales. While there are studies and reviews which explicitly address teacher educator identity (Davey, 2013; Erickson & Young, 2011; Erickson, Young & Pinnegar, 2011; Loughran, 2011) the not-so-simple matters of definition relating to 'teacher educator' 'identity' and 'professional identity' and complexity of the phenomena present challenges in deciding what studies and literature to focus on. Internationally, empirical studies that focus either specifically or, more often, contingently on the identity of teacher educators, fall broadly into four categories:

- Studies in higher education of the demographics of teacher educators as a particular disciplinary community or occupational sub-group, for example: (see for example: RATE studies, 1987–1994; Turney & Wright, 1990).
- Studies (mainly from Western jurisdictions) of the impact of managerialist reformism in tertiary education policy on the work and lives of academics generally,

or, occasionally, of teacher educators in particular, for example: (For example: Archer, 2008; Clarke, Hyde, & Drennan, 2013; Whitchurch, 2010).

- Small-scale (longitudinal) research on groups of teacher educators within and/or across some national/international contexts, including (Chan & Clarke, 2014; Davey, 2013).
- Case studies, self-studies, intimate scholarship of individual and small groups of teacher educators, relating their own experience of the (or some aspect of) practice of teacher education. These comprise accounts of teacher educators' biographies and stories, their own pedagogical beliefs and practices, the professional significance of their race, gender or sexual or subject orientation, the impact of their teaching on student teachers, their roles as research supervisors, and other concerns for teacher educators.
- In addition to these categories are some recent literature reviews which take a particular focus, including a few on novice ex-practitioner teacher educators and their transition and induction into higher education and a small number which specifically address concepts of professional identity (for example: Dinkelman, Margolis, & Sikkenga, 2006b; Izadinia, 2014; Saito, 2012; Williams, Ritter, & Bullock, 2012). We have focused here for the most part on more recent literature that contributes to the growing understanding of teacher educator identity formation. Given current research imperatives in universities, it is perhaps unsurprising that the majority of studies of teacher educator identity are written by and focused on university-based teacher educators or the transition to becoming a university-based teacher educator (e.g., Bullock & Ritter, 2011; Erickson et al., 2011; Smith, 2011).

As we note, while literature relating to tertiary teacher educators working in pre-service teacher preparation programmes is foregrounded, the international trend to locate more teacher preparation work out in schools means that it is also important that we recognize studies of in-school teacher educators and mentors and the development of professional identity within schooling contexts (Boyd & Tibke, 2012; White, 2012). Much of the work that is focused here is retrospective, conducted by those who have made the move to the position of teacher educator reflecting back to their experience as teachers (see Senese, 2002).

In making sense of the literature and presenting the field of teacher identity research, we sought to represent the research literature in a way that both recognized the complexity of the field, yet synthesized it in a way that made this complexity understandable. In our efforts, we have attempted to draw threads together across research and, through the particular framework adopted, to offer a way of theorizing and understanding teacher educator identity. The focus in examining teacher educator identity formation has been on the use of inquiries that are explicitly concerned with teacher educator identity *per se*.

Much of the literature around teacher educator identity formation suggests that for them the development of a teacher educator identity is a central process. Shifts and points of transition in role inevitably present as powerful catalysts for change, growth, renewal, and cognitive dissonance and offer both opportunities and

challenge. Intimate scholarship has explored the impact on practice and identity as teacher educators move from one cultural context to another. Studies that explore the initial shift from teacher to teacher educator reveal that while the transition initially appears to be a simple one, it is not and those making the shift experience it as challenging and stressful (Boyd & Harris, 2010; Boyd, Harris, & Murray, 2007; Boyd & Tibke, 2012).

Hamilton's (1995) work compared the transition to the disruptive experience of Dorothy as she traveled to and through Oz (including the tornado) and Placier (1995) used the headings Fiasco 1 and Fiasco 2 to indicate the difficulty of the move. Indeed the notion that many, if not all, teacher educators have difficulties in adjusting to the academic, pedagogical, and social expectations of higher education-based teacher education work, is now almost a truism in the literature. This includes uncertainty about the exact nature of new professional roles, difficulty adjusting to the pedagogical skills and, within the US context at least, an overwhelming concern with achieving tenure. Even more recently, many of the same preoccupations persist. Mayer et al. (2011) study about the accidental pathways into teacher education and the career trajectories of a small group of teacher educators working in a range of university sites in three states in Australia highlights the unsustainable limitations of such haphazard entry and induction and the need for more deliberate induction, mentoring and career planning.

While many studies focusing on the transition from teacher to teacher educator do not have a specific empirical focus on professional identity or identity per se, several studies do address the matter of identity development directly. Murray (2002) and Murray and Male's (2005) studies of teacher educators working in ITE in England, has shaped thinking about initial identity development for teacher educators. Murray describes the move from being 'first order' practitioners – that is school teachers – to being 'second order' practitioners as a slow and stressful process, a crucial period for establishing new professional identities and takes about 3 years. This process involves making adjustments to the expectations of working in teaching, with its different roles and sets of demands, including research, learning new pedagogies of teacher education, extending knowledge bases, ways of working and so forth. Drawing on data from their 28 participants, individuals felt that being a teacher educator had become part of their identity once their prior feelings of "professional unease and discomfort" (p. 139) and over-reliance on their credibility as first-order teachers subsided to be replaced by greater self-confidence and professional socialization into their new institutions. The authors argued the need for induction programmes that recognize the unique needs of teacher educators and are better tailored to individual needs, while also recognizing that other professional groups will share some aspects.

Smith (2011) in a Norwegian context highlights similar challenges in her description of the induction of two new teacher educator colleagues during a turbulent political and institutional environment as they juggled multiple roles. As part of their discussions about shifting role identifications, Dinkelman, Margolis and Sikkenga's (2006a) S-STEP highlighted not only the importance of early experiences as teacher educators but also argued they did not give up their

teacher identities to take on new ones as teacher educators. These novice teacher educators in fact claimed their ‘dual citizenship’ in terms of negotiating conflicting roles within their new contexts. Davey’s (2010, 2013) phenomenological longitudinal study of the professional identity of eight teacher educators teaching in a range of institutions over a 5 year period of institutional and political change both affirms and extends this idea, arguing that teacher educators in New Zealand in fact were subject to ‘multiple mandates’ because of old affiliations and responsibilities beyond the classroom in terms of national professional roles and that their taking on of new identities (both I-identities and D-identities in Gee’s terms) was additive. They accrued new roles rather than shed older valued ones. Aiming to get beyond individual stories, Davey’s moved toward theorising what a teacher educator professional identity might involve: an organic comprehensiveness of scope; embodied pedagogies and expertise; an ethicality of purpose and practice and ambivalence; and, professional unease – each of which is unpacked in detail within the study.

Similarly, Berry’s (2007) study of tensions offers an in-depth exploration of a teacher educator’s pedagogical knowing that move us beyond the rich particular to a more conceptual level. Berry’s study highlights the pedagogical complexities and conundrums that face teacher educators in their work with preservice teachers. While juggling competing agendas she uncovers the tensions around balance within her practice, including: *developing confidence vs encouraging uncertainty*; between *telling vs allowing for independent growth*; between *action and intent*; between *safety and challenge*. Such tensions offer a rich and intimate insight into and understanding of the intricate and multifaceted nature of the pedagogical practice and decision-making of teacher educators.

Barriers and Challenges to New Teacher Educators

Barriers and enablers for new teacher educators are recurrent themes in the literature. Harrison and McKeon’s (2008) longitudinal empirical study of the emerging professional and academic identities of five beginning UK teacher educators foreground the barriers many teacher educators face in the early stages of their professional learning. Challenges faced include: poor mentoring and support; inappropriate induction courses and relatively few opportunities for collaborative work in planning; and, teaching writing which resulted in a reliance on trial and error. However, Harrison and McKeon (2008) also argued that the individual’s experiences varied. While for some these challenges served to slow or even stall the transition process, for others it was accelerated. Further to this, they found assumptions about Lave and Wenger’s (1991) socio-cultural concept of communities of practice to be problematic and, “limited in illuminating the nature and processes of learning at work” (p. 166).

The assumption that developing identity by way of scaffolding moving from peripheral legitimate participation towards full engagement in a community with the help and support of others is premised on an assumption that there will be helpful colleagues who offer opportunities for mutual and initially low risk collaboration. Instead the beginning teacher educators involved in Harrison and McKeon's study struggled with others' expectations that they operate as autonomous experts in their new workplace, and found difficulty juggling the demands of working across multiple communities. On the other hand, several common factors facilitated the group's learning, including: flexible, institutional wide induction, formal and informal ongoing in-depth professional conversations with a designated mentor or colleague(s) and academic study, in this case at Masters' level (Harrison & McKeon, 2008).

With the intention of providing beginning teacher educators with a reference point for understanding the complex challenges of becoming, Williams, Ritter and Bullock's (2012) literature review of 60 (mainly) self-studies by beginning teacher educators in university contexts also use Wenger's (1998) work on learning and identity within communities of practice to structure their discussion and conclusions about learning as experience, as belonging, as practice to highlight the multi-faceted complexities of becoming. They argue that professional identity and developing as a teacher educator is shaped by three key factors: their biographies; their institutional contexts and the nature of the overlapping community/ies within which they belong and across which nexus they broker memberships; and, the on-going development of a personal pedagogy of teacher education.

The authors identified differences in teacher educator identity formation between more and less experienced classroom teachers. Those who were experienced tended to have strong identities. Their synthesis also highlighted the many tensions in the literature for beginning teacher educators: around 'letting go' of prior teacher identities, seen as sources of authority and professional credibility, around challenges to their self-efficacy; around deficit discourses, blurred boundaries around changing roles; and around deciding where they fit (White, Roberts, Rees, & Read, 2013) and what Dinkelman et al., (2006b), from the perspective of intimate scholarship, called, "deciding which leg to stand on" (p. 19).

While also focused on their transition from teacher to teacher educator, Trent's (2013) study of seven language teacher educators in two Higher Education institutions in Hong Kong examined the impact of boundary crossing as a powerful context for identity construction. Trent employed Varghese, Morgan, Johnston and Johnson's (2005) framework of identity-in-practice and identity-in-discourse to argue that while crossing boundaries offers opportunities for learning as forces for change and development, such experiences may also result in 'conflictual, marginalizing experiences'.

Trent's (2013) study reinforces the need to take into account the institutional situatedness of settings, along with "broader societal discourses of teaching and learning that differ across educational jurisdictions" (p. 274). In other words, while there are similarities in trajectories into teacher education, cultural, contextual and

temporal differences are significant shapers of identity. As we have argued earlier, context matters and studies of the particular allow for researchers and practitioners to make more informed judgment concerning when findings from one study might apply to another.

Izadinia's (2014) review of 52 research papers on the professional identity of teacher educators, most of who were again university teacher educators, confirmed a number of issues raised and problematized elsewhere in the literature on teacher educator professional identity, including the ongoing paucity of studies on the subject and issues around definition and the impact of inadequate academic induction. Indeed, such focus on limited, insufficient or non-existent induction and how such gaps might be rectified has been a constant in the literature on transitions into teacher education. Over the last two decades, a number of studies from several Western jurisdictions have advocated for more and better formalised induction processes to support new teacher educators in their new identity development (Buchberger, Campos, Kallos, & Stephenson, 2000; Murray, 2002, 2005a, 2005b, 2008, 2012; Murray & Male, 2005; Sinkinson, 1997; Wilson, 1990).

Induction into teacher education is often experienced as functional and compliance oriented rather than 'professional development' oriented (Murray, 2005a). It is presented as haphazard in form (Murray, 2005a), as well as narrow or limited in scope (Sinkinson, 1997). In some situations, the processes are too generic to support the specialised needs of teacher educators (Martinez, 2008). Few teacher educators, it seems, receive any formal preparation for teaching in their new context. Rather they are, as Martinez (2008) put it, "self-basting turkeys [left to] do it themselves" (p. 41); an image that finds resonance across the Tasman Sea (Davey, 2013). Citing a collaborative, exploratory study of novice teacher educators across six countries, van Velzen, van der Klink, Swennen and Yaffe (2010) found that none of the participants experienced a satisfying induction into both their institution and the profession as well and that a lack of shared language in communicating professional issues highlighted a need for further development this within international communities.

Taking a position that there has not been a thorough analysis of available literature, Izadinia (2014) attempts in her review to highlight those processes involved in identity formation in order to point a way forward. The author identifies a number of both external and internal tensions faced by teacher educators across studies. As others have found, these centralised around: new/changes, role expectations, the building of new pedagogical, organizational and institutional understandings of the new teaching and research roles and context, and challenges in creating new networks and relationships.

Teacher educators in these studies faced a range of inner conflicts, negative emotional tensions and self-views: senses of vulnerability, issues of credibility, marginalization, feelings of uncertainty, and, self-doubt. While shifting roles and developing new ones such as researcher identities were often impeded by teacher educators' prior experiences, beliefs and values, knowledge bases and attitudes, the review also highlighted affordances. Key activities influencing positive identity

development came from both self and community support, ranging from daily experiences of working as a teacher educator, supervising student teachers, trial and error, professional reading, reflection, and systematic and careful inquiry into one's own practice. Participation in supportive learning communities was emphasised as invaluable and, as is increasingly highlighted elsewhere in the literature, suggestions for developing high quality induction included: the crucial nature of developing and belonging to formal and informal learning communities where novices listen to and learn with and alongside more experienced peers; developing trusting, supportive and collegial relationships; purposeful reflection. Well-framed S-STEP and practitioner research (intimate scholarship) were seen as, "building blocks of academic induction programmes as a learning community" (Izadinia, 2014, p. 436).

Based on different groups of studies (only six studies in common with Izadinia) and taking a different orientation, Saito's 2013 review on the challenges faced by novice ex-practitioner teacher educators as they moved into university faculties highlights similar difficulties in identity switching or adjusting to new work environments. This review foregrounds 'fear of research' and the development of a researcher identity – as arguably one of most problematic adjustments for many novice teacher educators, in contrast with other academics. Effective support programmes are once more seen as a key to overcoming some of the challenges faced by novices. Reiterated themes include: the importance of participation in communities of practice (Swennen, Jones, & Volman, 2010); the power of reflection, of both informal and formal learning opportunities; of mentoring, including peer mentoring, including on the job collaboration, all as means of dissipating isolation and loneliness. Engagement in S-STEP or other forms of intimate scholarship wherein one explores ones' own experience serves to uncover not only processes of identity development but potentially contributes to understandings in the literature of what it means to know and do teacher education. Thus, such methods are yet again promoted as offering powerful opportunities to integrate teaching and research in ways that enable new teacher educators to reflect on the "tensions, surprises, confusion, challenges and dilemmas faced in their teaching contexts" and that focus on teaching specific research skills as well (Saito, 2012, p.196). Saito argues the importance of teacher educator agency, suggesting that novices may need to reframe their struggles to see them as opportunities for professional growth, not deficits, or to use a computing metaphor, as 'features rather than bugs'. It is recognizing and articulating these difficulties that makes change possible.

Such studies can also enable beginning teacher educators to more clearly chart the shift in knowing that occurs, and to highlight not just the challenges of becoming a teacher educator, but to illuminate what they know as teachers. The differences in knowledge between doing teachers and doing teacher educators provide a rich resource for developing knowledge that can inform practices and pedagogy in teacher education. Saito also argues for the taking of institutional responsibility. Supportive academic colleagues are necessary to support novice teacher educators' enquiries.

Context and Identity Formation

While it should be noted that both these literature reviews are selective, excluding for the most part publications in non-English and non-peer-reviewed journals, book chapters, books, conference proceedings and reports, a number of clear themes emerged which are found in other studies of transition, such as from graduate student to teacher educator. Published studies in this area tend towards self-studies focused on the impact of collaborative professional learning on identity development. For example, Butler et al. (2014) discussed the value of a doctoral seminar on teacher education pedagogy and S-STEP methodology in shaping their identities as educators and future teacher educators. Through these themes, the development of a collaborative mindset, a teacher educator-researcher perspective, and a critical self-awareness emerged. As Williams et al., (2012) also affirmed, an examination of the shaping influences of doctoral students' professional and personal histories was crucial, as was having guided support from more experienced teacher educators. Kosnik et al. (2011) described a 3 year Becoming Teacher Educators (BTE) initiative for 12 doctoral students who were prospective teacher educators, working alongside two professors. Strengths as a community, shared leadership, opportunities to develop teacher education knowledge and improve research skills, were seen to be positive influences on both identity and practice. Collaborative professional learning, too, is the focus of a Canadian S-STEP of doctoral students. Murphy, McGlynn-Stewart and Ghafouri (2014) emphasized the importance of a critical friendship within a supportive writing group in preparing them for future teacher educator identities.

Most studies then debunk the myth that that the move between teacher and teacher educator roles and that the consequent development of new identities is easy or unproblematic. Indeed insights into the process suggest the opposite: that the initial transition into teacher education with its new demands and cultures is most often complex, stressful and challenging with ramifications for both personal and professional lives. Such transitions may be hindered or facilitated through personal beliefs and biographies, existing levels of self-confidence and self-efficacy and they are inevitably impacted on by external socio-cultural factors which include the type and quality or its absence of induction processes, and both interpersonal and communal support for new teacher educators.

Ironically, some of these same tensions and challenges as well as factors that support and scaffold initial identity development emerge in relation to a teacher educator's ongoing professional learning, their puzzles of practice, development of knowledge, expertise and self-efficacy across all roles and affinities identified as part of the work and developing identities of teacher educators; including teaching and pedagogical practices, the place and role of research, induction into and brokering membership of multiple communities of practice (See Clandinin, Downey, & Huber, 2009).

The next section of the chapter looks beyond the initial transitions into teacher education towards the ongoing processes of becoming, in relation to changes in roles

and in the development of different kinds of expertise needed in new institutional contexts, within shifting political landscapes.

On-Going Processes of Becoming: Professional Identity Development

As already articulated, teacher educator professional identity negotiations can be understood as an ongoing process of becoming. In this section, the stories of becoming draw from literature that focuses on teacher educators who are post-induction and initiation into the roles and identities of teacher educator. Themes in literature about established teacher educators echo those pertaining to new teacher educators transitioning into the role, highlighting the complexity of teacher educator identity negotiations even for those past the novice stage (Berry, 2007; Davey, 2013) and how ongoing developments and (shifts in) roles act to illuminate or intensify issues around identity negotiation (McDonough & Brandenburg, 2012); and tensions for teacher educators in negotiating expectations and multi-memberships of communities of practice (Davey, 2013; Davey et al., 2011; Kosnik & Beck, 2008; Kosnik, Menna, Dharamshi, Miyata & Beck, 2013; McKeon & Harrison, 2010; Sindelar & Rosenberg, 2000; Williams et al., 2012).

The literature also highlights elements of identity development that relate to changing policy and institutional contexts and the challenges for teacher educators confronted with the changing nature of their work. In several international contexts, this concerns the development or promotion of a researcher identity or of 'working the dialectic' between educational practice and research (Cochran-Smith & Lytle, 1993, 2009). Also strongly evident is the role of ongoing professional learning and S-STEP or intimate scholarship as an aid to ongoing identity development. It is these latter factors that are the focus of this section on teacher educator 'ongoing becoming'.

Other studies of experienced teacher educators examine the ongoing process of their formation of identity as a teacher educator (see: Arizona Group, 2007; Bullough, 2005; Coia & Taylor, 2013; Craig, 2013; Feldman, 2006, 2009; Hamilton & Pinnegar, 2014). Studies done by teacher educators later in their career indicate that while experience might somewhat 'smooth the way'; the context of teacher education remains challenging. Finding ways to be sustained as a teacher educator is not a simple process. In their return to a re-examination of their 1995 study, the Arizona Group (2007) indicated the ways in which the difficult questions of their initial experiences continued to plague them. Further, some work done from those later in their career, examine how their identity as a teacher constantly emerges and energizes their identity as a teacher educator, particularly when they have opportunities to return to the classroom as part of their professional responsibilities (see for example, the work of Russell, 1995; Snow & Martin, 2014).

Schlein and Chan (2012), as experienced teacher educators, used forms of intimate scholarship to explore the impact that taking up teacher education in landscapes culturally different from where they engaged in their doctoral work had on their knowing and doing teacher education. The construction of new identities as a result of wearing new hats in different contexts is evident in other studies. For example, as part of a school-based action research project in the context of reform in language assessment in Hong Kong, Chan and Clarke (2014) problematized the ways in which the university teacher educators acting as facilitators and the teachers with whom they worked negotiated and managed identities whilst being engaged in a collaborative project. Identities were found to be neither fixed nor finite in the context of collaboration, and were negotiated and constructed in an ongoing manner against a backdrop of contextually salient discourses. Similarly, Pinnegar (1995), who took up a position at a different university, examined what impact beginning again at a new institution had on her identity as a teacher educator. Using role theory and Bourdieu's (1983) concepts of habitus and field as conceptual lenses, a more recent S-STEP by Clift (2011) also highlighted the impact of an institutional shift. In her case, this also involved a move in state and roles, at a point late in her career. Her study analyzed the impact such a move had on her sense of self and identity as she negotiated both different roles and contexts.

Shifting Roles, Shifting Contexts, Maintaining Identity Formation

Coia and Taylor (2013) examined how their understandings of theories that animated their work as teacher educators had both remained constant and shifted across their years as teacher educators and the impact that shift had on their doing teacher education. LaBoskey (2012) engaged in a study exploring her influence (concerning a commitment to social justice) in the teaching of her former students, particularly their own enactment of such practices. What such work shows is that identity formation is ongoing, can constantly fuel curiosity and research about teacher education and that attention to shifts in identity lead researchers to make provocative contributions to research on teacher education.

Teacher Education Reform and Ongoing Identity Negotiations

One of the themes across international boundaries within teacher education research has been the subject of reform, as part of policy agendas to bring about change in education and school systems (Cochran-Smith & Zeichner, 2005; Murray & Kosnik, 2011). Sugrue (2013), writing in the Irish teacher education context, highlighted the "competing and contradictory logics of accountability and professional

responsibility and how these tensions are navigated and constantly re-negotiated by teacher educators” (NP). The policy imperatives and accountability pressures of which he writes represent global forces clearly recognizable in and beyond the borders of Ireland and Europe. These forces cannot help but impact teacher educator work and identity.

One form of accountability that has gained policy prominence in recent decades in a number of countries is research audits, often linked to university funding mechanisms. Middleton (2008) argued that, in the New Zealand context, the implementation of an audit culture acts to reproduce and reinforce theory/practice binaries. The pressure and tensions experienced by teacher educators who are required to negotiate research and teaching accountabilities is clearly documented in research literature (see, for example, Dinkelman, 2011; Gemmell, Griffiths, & Kibble, 2010; Houston, Ross, Robinson, & Malcolm, 2010; Lunenberg & Hamilton, 2008; Murray et al., 2011). Swennen et al. (2010) contended that, “there seems to be broad understanding that teacher educators have to transform their identity as teachers to become ‘teachers of teachers in Higher Education’ and (increasingly) to become researchers of teaching and teacher education” (p. 131). For established teacher educators whose roles have focused particularly on teaching and mentoring, the increased pressure to research and generate research outputs presents particular identity challenges as they negotiate changing accountabilities and expectations of their roles.

Policy shifts that have led to the expansion of school-based training and enactment of school-university partnerships for teacher education have also effected changes in the nature of teacher educator work. Emerging research suggests that university teacher educators and teachers in schools working in partnership for teacher preparation present an uneasy alliance between universities and schools and that work in this space affects teacher educators’ sense of professional purpose and identity (Brown et al., 2014; White, 2014). The as yet small amount of research relating to the ‘hidden’ professionals – teacher educators in schools – means it is difficult to identify where and how they are deepening their knowledge and understanding of roles, possible selves and professional identities as teacher educators. There is, though, a growing body of research that sheds some light on their identity negotiations. For example, early work in this area is exemplified by Clandinin et al. (1993), an edited volume that emerged from a school-based teacher education programme in Canada, that included the voices of all participants (university teacher educators, school-based teacher educators, classroom teachers and teacher candidates).

Bullough (2005) examined his own history as a teacher educator beginning with his school-based experience. More recent work includes a review of the work of Livingston and Shiach (2010). Livingston (2014) notes that school-based mentor identities seem to relate predominantly to their roles as teachers of children and to reflect the, “implicit and explicit norms, beliefs and expectations of their fellow teachers and the school” (p. n226). Smith and Ulvik (2014) found that taking on teacher education roles as professional development leaders in schools had an impact on those teachers’ professional identity. This literature, though, tends to

relate to initial becoming rather than to ongoing identity negotiations in more established or long-standing teacher education positions.

Contribution of Intimate Scholarship

Across this chapter we have argued that teacher education is solidly grounded in practice and that our knowing of it is based in practical knowledge. It is fundamentally relational, and focused on the particular, and our knowing of it emerges, is clarified and is strengthened through dialogue. When we inquire into our knowing, doing, and becoming as teacher educators (our identity formation), we are most interested in constructing accurate, rigorous, and trustworthy accounts of what is based in ontology, specifically a relational ontology (Slife, 2004). Currently, many engaged in research on teacher education argue for large scale, multi-site, multi-institutional studies that provide generalizable findings that could be applied to any programme in teacher education across multiple-sites and national and international boundaries (see Cochran-Smith, 2005). Such an orientation devalues, and perhaps presents as irrelevant, studies that uncover the practical knowledge that resides behind the practices of teacher educators and is part of their ongoing negotiation of their identity. Such studies reveal the embodied, tacit and personal practical knowledge teacher educators draw on as they support both preservice and inservice teachers in beginning and continuing their quest to become teachers.

In more recent work, Cochran-Smith (Cochran-Smith & Villegas, 2015; Cochran-Smith et al., 2015) provides a two-part analysis of research on teacher education. The work focuses on an analysis of extant research. The group articulates three trends (accountability and effectiveness of teacher preparation, teacher preparation for a knowledge society mostly focused on new conceptions of learning and oriented toward student rather than teacher learning, and teacher preparation for diversity). They then identify these as three programmes of research on teacher education and assert clusters of research programmes within each of these subcategories. The findings reported are based on a review of the literature that included empirical studies of teacher education predominately within the United States. They did not limit by methodological, epistemological or theoretical orientations and included international studies that were relevant and that impacted research in the United States. They searched widely including hand searches as well as targeted computer searches. They did not include articles that reported on teacher education that supported teachers beyond initial preparation. However, even though such teachers might actually be considered no preparation and first year teachers, they did include studies on Teach for America and other alternative route programmes.

The first category presented in the overview is policy and assessment oriented aligned with the neoliberal politics and modernist epistemology. The third category is focused on the volume of work conducted around issues of diversity, specifically how to disrupt through coursework and field experience pre-service teachers' beliefs about diversity and their responses to it. The second category includes

everything else in teacher education—methods courses, pedagogy, literacy instruction, content knowledge, etc. This category focuses on teaching future teachers to take up new theories of learning to engage their students in ways that are based on new theories of learning.

The last two categories they identified do include at least a section that might include intimate scholarship. However, these clusters are subsets of two major categories, with one focused on diversity and one focused on student and teacher learning. In unpacking their overview, they privilege the clusters that focus on teacher learning rather than teacher educator learning. In part II, they argue as the first point, the need for research to inform policy makers and in that light push toward improvement in teacher education. They argue that there is a deep and ongoing need for multi-site longitudinal studies oriented so that they adhere to and align with modernist notions of research. They end by asserting that to truly develop deep understandings of teaching teachers, research needs to be conducted from a multiplicity of epistemological and methodological orientations, a point that lies in direct contrast to their first assertion. However, while their story of research on teacher education is more traditionally presented and their categorization of the aspects of teacher education to be studied resonates with more modernist conceptions of teacher education and research on it, their article provides quite a strong evidentiary basis for our claim that research on teacher education is anchored in practice—the practice of teaching and the practice of preparing future teachers.

As we review the overview (part I & II), we are struck by the fact that while the group sought research from a multiplicity of paradigms, methodologies, and orientations, the overall conception of teacher education research presented articulates a narrative and categorization of teacher education that continues to resonate with the ‘sacred story’ of teacher education identified by Clandinin (1995)—one where teacher educator is expert and distributes knowledge of teaching to students who will be teachers.

In Cochran-Smith and Villegas’ (2015) and Cochran-Smith et al.’s (2015) reporting of their analysis and their categorization and clusters, they present a story of teacher education research rather than teacher educators’ story of research. In other words, theirs is a story told by researchers about teacher education and research on it, rather than the story teacher educators would tell of research on teacher education (see Clandinin, 1995). While they argue that studies from a variety of perspectives can be helpful in order to improve the potential for teacher education research and the improvement of teacher education, they give the most weight to studies aligned with modernist ways of knowing, arguing such studies have the most value and impact in informing teacher educators and policy makers.

In contrast, we argue that the surest way to strengthen teacher education programmes is to conduct research from the basis of intimate scholarship. The characteristics of this orientation to research best match the kind of knowing that fuels, energizes, informs and ultimately improves practice. Intimate scholarship can be conducted through a variety of methodologies such as narrative inquiry, narrative research, life history, action research, autobiography, memory work, autoethnography, phenomenology, and S-STEP. However, regardless of methodology, intimate

scholarship is conducted and presented from the perspective of the person acting in practice or in understanding experience. The intimate scholar expects to act on what is uncovered in the inquiry in order to develop as a teacher educator and improve their practice. Rather than attempting to make knowledge claims such scholarship is instead oriented to ontology and careful, thoughtful uncovering of what is in practice, memory, or experience. Like practice and experience, the inquiry space is dynamic and evolving, enabling studies that attend to surprise, growth, and transformation. Intimate scholarship recognizes that such work is always relational and that integrity and ethics are hence of vital concern. The researcher is open, willing to be disrupted in life and practice, and therefore always stands in a space of vulnerability. This means that the emotional, intuitive, and tacit are always part of the inquiry.

One of the exciting and challenging aspects of intimate scholarship is dialogue as a process of knowing. This basis pushes inquirers to seek other interpretations, alternative perspectives and multiple ways of understanding what we explore. This multiplicity of knowing engenders uncertainty but also promotes growth both in our own knowing and doing of teacher education and in the research reports we share of our inquiries.

Researchers who conduct intimate scholarship recognize that the reader of the research is a partner in knowing and doing teacher education research. The reports of their research must make visible the relevant aspects of their own personal practical knowing, their becoming as a teacher educator, the contexts of their setting, the theoretical basis and conceptual orientations of the assignments, programmes and practices being explored. Intimate scholars recognize that such reporting needs to be vital and vibrant. Researchers reading such reports will be engaged in both conceptualizing the inquiry conducted and simultaneously imagining and reimagining both how things might be otherwise and how what is being said relates to their own knowing and doing. From inception, through design, implementation, analysis, and reporting, the intimate scholar feels the presence of this other scholar. In intimate scholarship there is therefore a consistent and constant attention to meet the demands of the scholar's own integrity and to meet the requirements of this other scholar to judge the scholarship as trustworthy, insightful, and relevant. The intimate scholar is always aware of the other in the scholarship indeed of the multiplicity of others. The others embodied in our own multiplicity of understanding and insight, the others who will read our studies, the others we seek out to dialogue with to uncover what we learn within our studies, and finally the others with whom we are in relationship in the studies we are conducting. Intimate scholarship is different from more traditional scholarship, is always wakeful and draws on the knowing and doing of these others within the inquiry being conducted.

The questions, puzzles, and topics of studies conducted from a space of intimate scholarship are personal. As teacher educators know and do teacher education they are constantly in a process of becoming. This is important to the promise that intimate scholarship holds in informing teacher education research and teacher educators' practice.

As we are doing teacher education, the disruptions in our experience, the focus of our contemplation, the tensions we feel in our practice, all lead us to explore

these things more deeply. In these explorations, we observe more carefully and thoughtfully both ourselves and others in interaction and relationship to us. We develop an evidentiary trail that allows us to return again and again to what we did and how we understand it. We engage in dialogue about what we are seeing with ourselves, with others, and with the research texts that inform the field. Thus, the reports we produce are entangled in the practical basis of our knowing and integrated in subtle and nuanced ways with potential research.

The basis of these studies is personal and continual. We teach the same content over and over again and yet, as teacher educators, we recognize differences in our students' engagement and learning. We observe student teachers or mini-lessons and we recognize variability in performance and understanding. We notice how changes in the structure or even language of assignments shift the learning of these future teachers. We can explore how those we educate instantiate practice, how they develop as teachers, and what they valued in their experiences with us—both immediately as they enter teaching and across time in teacher education. Uncovering our actions, our thinking about what we are doing, and the interactions we have with students, we are oriented to developing more robust practice and more nuanced and subtle as well as more strategic responses in guiding the learning of future students. If we are intimate scholars, we provide an empirical exploration of these puzzles, our doing of teacher education and the knowing that emerges from the studies. Publishing our developing understandings and anchoring them in evidence from our practice and our reflection can then inform the larger research community.

As we inquire into who, what, and how we are as teacher educators, what and how we know and understand teacher education, preservice teachers, and the institutional interactions we engage in; and what and how we are in relationship to others in our practice, we explore hidden corners of teacher education. We shine a light in those corners and enable others to take up practices, adjust and shift their own knowing and doing, or sometimes even move in completely different directions.

Since teacher education research is fundamentally oriented to practice, engaging in it using intimate scholarship allows the inquiries themselves to be enacted in a space that is uncertain and evolving. As teacher education programmes and practices play out in particular contexts, cultures, schools, students, content, assignments, evaluations, and programmes, examination and exploration require inquiries that are grounded in the particular and that value this kind of particularity. Such work that reveals the practical knowing and tacit embodied knowledge that is embedded in context and both develops and is revealed in experience—both in doing and knowing that emerges in this kind of experience. Inquiries into teacher education as an enterprise conducted through intimate scholarship are able to uncover, explore and examine the nuances of understanding that can be best extracted from particular experiences. Such work is energized by the characteristics of continuity and interaction that Dewey (1938/1997) argues leads to deeply educative experiences. Excavating these experiences and developing accounts of them provides information that can invigorate the scholarship of individual teacher educators as well as teacher education as an enterprise.

As teacher educators, we are always in a process of becoming. As we learn new things, as we try out new practices, as mandates change, as institutions enact reforms, we are becoming different. The sites of this becoming are all worthy topics for research in teacher education from the perspective of the teacher educator. Further, we become interested in what we are doing and what the action reveals about what we know and who we are. Through inquiring into that space, new understandings that can inform teacher education emerge. Sometimes as we act as teacher educators, people label us or name us differently from how we might name or describe ourselves; such denials of who we think we are again are fruitful sites for inquiries that will inform teacher educators and teacher education. Exploring the trail of how we came to know or do through exploration of past experience, or memories of events, can provide important understandings that can help us think in new ways about our own learning and growth and how we might better support and sustain the teachers we are educating.

Putnam (2005) suggested that we are confronted with intractable problems (like poverty, language diversity, mayhem, politics) issues that continue to emerge, where the solutions suggested fail and where difficulty returns. Modernist research attempted to find generalizable solutions that would resolve such problems once and for all. However, as Putnam reported, such efforts failed since the problems taken up remain. He suggests that Dewey opened a new enlightenment by indicating that we should embrace and explore our experience. We should document and examine the resolutions to these intractable problems we attempt to solve. By providing careful, coherent, vivid and detailed accounts of the contexts of the problem and our knowing and doing in response, we have the best hope of informing and shaping our own world in ways that sustain and support human flourishing. Intimate scholarship with its characteristics of vulnerability, particularity, openness, dialogue, ontology hold the strongest potential for the development of understandings that will strengthen the practice of individual teacher educators as well as the field as a whole.

Conclusion

We have argued throughout this chapter that teaching teachers is teaching practice within the space of practice. As a result, we have argued that knowing, doing and becoming in teacher education is practical and practice based. Intimate scholarship takes up the study of experience, our practical knowing within it, and our action as practice in response. The study is undertaken from the perspective of the person experiencing teacher education, practicing and acting as teacher educators. It values and explores the particular of practice, experience and memory of particular events, situations and actions. It attends to the tenets of rigorous scholarship in order to make public the private action of teaching in teaching teachers. Findings emerge

through dialogue with others, with self, with the research literature and with the data that documents the practice and experience. Since the orientation is toward developing clear pictures of what is (ontology) rather than making claims based in modernist epistemology and abstractionist ontology, then engaging in dialogue supports the intimate scholar in uncovering and making explicit that which is implicit in their knowing and doing of teacher education.

Such dialogue in the inquiry process of intimate scholarship supports the researcher in uncovering the knowing in the doing and the doing in the knowing—all in a process of becoming. Dialogue uncovers the knowing, strengthening assertions through moving insights into more explicit evidence from practice, memory, and experience and instills confidence in this explicit knowing.

The Contributions of Practical Knowing

Polanyi (1967) argued that our knowing in our doing is tacit and embodied. As Schwab (1970) argued for that practical knowing in teaching is holistic and is shaped, informed, and formed by our experience and action as teachers. As we attend to particular aspects of our action or our knowing, in some ways we pull it away (though never completely sever it) from that whole. In inquiry we continually attempt to explore how it might be different, how we might find alternative explanations, and how we might introduce differing interpretations and take other perspectives. In this way what was singular in an action blossoms as multiplicity in our knowing of it.

Intimate scholarship is capable then of producing research accounts that alter and inform the terrain of research on teacher education and teaching, but just as importantly, it informs, reforms, clarifies and transforms the practice and experience of the teacher educator. What is learned is reconnected to the holistic network of action, knowing, thinking, and becoming that is our experience, practice, and memory. Thus, studying and restudying similar issues and experience has the potential to continually inform teacher education research and practice. An example of this is the work of Brubaker (2010, 2011, 2015), who in a series of studies explores negotiation around assignments and grades within his ongoing enactment of democratic practices in his pedagogy as a teacher educator. Studies of this kind result in overarching concepts. In a similar manner, the work of Berry (2007) uncovered a set of tensions always present in teacher education.

In knowing Berry's tensions we can hold them in our thinking in relationship to the dilemmas that emerge in our own practice, serving as guides and critics in terms of our thinking, knowing, doing and becoming as teacher educators. Practice and our experience of it and our knowing and doing within it become a never-ending source for inquiry from the basis of intimate scholarship.

Intimate Scholarship and Identity Formation

Intimate scholarship as a way of exploring knowing, doing and becoming in teacher education as scholars we argue is the strongest conceptual tool for uncovering, querying, and unpacking such knowing and what we can know from our doing. This is so because the person who is the knower is also the actor, the planner and the implementer of the practice or the person having the experience being studied. While more distanced perspectives characteristic of non-intimate scholarship whether quantitative or qualitative methodologically can be utilized in studying teacher education, such methodologies have difficulty capturing the emotion, the intuitive, and the relational that are simply part of inquiry oriented through intimate scholarship.

Teaching is a very public, private act. It feels that way in the knowing and doing of it. Intimate scholarship has a similar duality—it explores our private thinking and knowing in terms of our always-public enactment of it and it takes what we know privately and tacitly through our inquiries and offers that knowing for public consideration. Our action in teaching may publicly appear confident but as teachers we are always aware that we are standing in a vulnerable place filled with potential disruption and uncertainty. Intimate scholarship allows us to stand in this fluid uncertain space and uncover, surface and examine knowing and doing that is potentially the kind of knowledge most likely to transform our own teacher education practice and, through contribution to research, transform research in teacher education and knowing for teacher education.

Teacher educators who conduct and engage in intimate scholarship always have a personal stake in their work. This personal stake is founded in their integrity and their commitment to acting ethically within their practice—to constructing experiences and engaging in practices that will support teachers in their becoming teachers (in teaching themselves to teach). As teacher educators inquire into their experience, memory, thinking, and practice as teacher educators, they gain clarity about the knowing (obligations, commitments, responsibilities and understandings) embedded in their doing. As they develop clarity, the latter positions them to refine and sharpen their practice and more fully meet the obligations of their practice. Their practice shifts, assembles and reassembles itself.

This new knowing and understanding of their practice through doing reconnects, reforms, reshapes their practice becoming tacit and embodied. Because teacher educators have uncovered this knowing, it is more consciously rather than non-consciously available to them as they deliberate, reflect on, and plan their teaching of teachers. It guides them as they act and as they plan for action. It is part of their intuitive consideration of practice and in-flight decision-making. The knowledge is practical and becomes part of their personal practical knowledge as teacher educators; it becomes part of their ongoing identity formation.

Fenstermacher (1986) argued that the reasoning that captures and informs teaching practice is revealed in teachers' practical arguments. He differentiates practical arguments from arguments made through formal reasoning as arguments that end not as syllogisms but in actions taken. He suggested that as teachers reasoned about

their practices and attended to places where action and belief were in conflict then their practice would shift and reform itself. Morgan (1993) provides a piece of intimate scholarship that demonstrates this transformation as a public school teacher. She articulates what she learned from a careful examination of the reasoning behind her action in keeping a child in from recess to read an assignment not completed at home. She uncovered a collision between her belief and her action. In making this incoherence present in her knowing of teaching, she worked to address her competing need for students to do their work and her belief that reading should not be a punishment and devised more sophisticated practices for attending to this discrepancy. Her article made public personal practical knowledge that guided her teaching, the eclecticism based within it, her reasoning and response and her changes in her practice.

Unlike research conducted from a modernist epistemological orientation, intimate scholarship does not rely on generalizability as a mode through which knowledge claims can be imposed on teacher educators. Such research is often, because of the basis and claims of generalizability, embraced and imposed across international borders as if context and the particular do not matter. In contrast, intimate scholarship with its focus on the particular, its ability to make the public private, and its attention to trustworthiness is best positioned to inform and be informed by research conducted from this perspective. The reader is invited in as a co-interpreter. The researcher has an obligation, since the orientation is toward ontology, to make explicit the contextual, situational and relational features within which the inquiry was conducted. The readers are then able to imagine and reimagine the knowing uncovered in the publication, within the space of their own practice.

The reader of intimate scholarship is invited to make two kinds of judgments—one focuses judgment on the trustworthiness of the work itself and the other focuses on how applicable and viable the insights are in informing the practice of the reader/researcher. In an international context, which is more characterized as Local Variation than World Culture (Anderson-Levitt, 2003), the researcher does not make a unilateral transfer of the knowledge claims to their own setting, but as Local Variation argues the understandings and insights are utilized in forming teacher education practice that is culturally sensitive and relevant. In intimate scholarship invites the reader (across institutional, personal, and international boundaries) to explore the context and practice of the inquiry and judge the understandings uncovered. The scholar teacher educator then determines not only the usefulness but also the space in which such insights are utilized. The findings from intimate scholarship are then embraced within the practice of this teacher educator scholar.

Practice and Pedagogy

Our argument in this chapter is that intimate scholarship is grounded in, and attuned to, studying the particulars of our experience and practice. This scholarship is capable of making the emotional, tacit, embodied knowing of our practice

explicit. As empirical research founded in evidence and presented in publication, it is positioned to make a unique contribution to the research literature because it exists not on either end of the practice theory divide but in the midst of it. It is also then more universally available for other teacher educators to consider as they examine and excavate their own practice. It can be held in relationship as mirror of, contrast to, or insight for their own inquiries into and knowing of teacher education.

Finally, such insights both borrowed from reflection on the intimate scholarship of others and emerging from one's own work as an intimate scholar can be taken up in the practice and inform the personal practical knowledge of the teacher educator. Orland-Barak and Craig (2014), in introducing the pedagogical practices of international teacher educator scholars, argued that pedagogy represents the same space between theory and practice. Thus, intimate scholarship findings potentially transform three sites of inquiry simultaneously: the conversation in research on teaching and teacher education; the inquiries of teacher educator scholars into their own knowing and doing of teacher education; and, the pedagogical practice developed.

Value of the Particular

All of this becomes problematic when teachers across countries attempt to apply supposedly 'generalizable' findings from one country to another where the context may make the results irrelevant or inappropriate. Fundamental to Intimate Scholarship is an orientation to making the particularities of the study as well as the findings clear and evident so that those reading the scholarship are able to determine the coherence and applicability of the understandings developed to the context of their own work. Mishler (1990) argued for exemplar validation, which refers to the ability of a study's findings to be reimagined in ways that make it informative for those developing practices in a different setting. The study and how it is reported allows the researcher to determine how they might take up what is learned about one particular situation in the situation and context of the person reading the study. Putnam (2005) suggested that examining what is learned from a particular response (successful or not) could be used in deciding how one might respond to a similar issue in their own context or practice. Drawing the findings of research forward to consider how it applies in a different context is not straightforward and requires adjustment and repurposing of the understandings that emerged from the study. This, he asserts, is the promise of focusing on the particular, rather than generalizable in research. Nowhere is this more true than in research on teacher education.

Obligation as an Intimate Scholar

The major purpose of teacher education generally, and teacher educators specifically, is teaching teachers. Attached to this purpose is a felt obligation of teacher educators to the students that the teacher candidates they are educating will teach. Thus, in knowing, doing and becoming, teacher educators are focused on, oriented toward, and ethically bound to developing the kind of practice that will enable them to meet this obligation. Enacting this purpose requires that teacher educators envision, design, and implement programmes, courses, and practices—experiences that will enable these future teachers to engage in the knowing, doing, and becoming teachers. Intimate scholarship generates research that can inform this work.

Through their inquiries, teacher educators engaged in intimate scholarship, as we have emphasized, are able to develop insights that allow them to design and enact such experiences. Just as intimate scholarship provides a basis from which teacher educators can transform their own practices and develop personal understandings for this purpose, the work of other teacher educator/researchers can be embraced as practical knowledge that can also inform this process. Finally, making their intimate scholarship publicly available, teacher educators conducting inquiries from the base of intimate scholarship are able to inform the personal practical knowledge of other teacher educators and contribute to and potentially shape teacher education more practically.

Intimate scholarship can inform the pedagogy of teacher education across institutional, personal, and international boundaries not through generalizability but through entering the personal, practical knowledge of the teacher educator (doing the research and reading it) and thus be integrated simply into the practice and experience of the teacher educator. This knowledge then re-forms as a new whole, enabling new venues and nuances of experience and practice that can be taken up as an inquiry by the intimate scholar. Furthermore, as Mansur and Frilling's (2013) inquiry into their development and design of an open learning space demonstrated, findings from more traditional research embodied and embraced in practice and then revealed in descriptions of context and the focus of further study are also made practical.

Engaging in intimate scholarship and reading and reflecting on it enables teacher educators to shape and design the kinds of experience identified by Dewey as educative. Attending to both continuity and interaction, the informed intimate scholar designs experiences that enable future teachers to begin to embody particular knowing to shaping their own doing and becoming as strong teachers. In such work, teacher educators position future teachers to be open, wholehearted and responsible as they engage in educative experiences where they teach themselves to become teachers.

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Chapter 21

Teacher Education for Educational and Social Transformation

Lorena I. Guillén, Camila I. Gimenes, and Ken M. Zeichner

Introduction

Educational processes articulated to educational and social transformations can be performed in multiple directions. They can range from establishing relationships that are revolutionary of social order, to education in a neo-liberal perspective based on education as a salvationist position ending all social problems. Social and educational transformations are ambiguous expressions and they have polysemic significances; they are not easily apprehended and have been used in many ways to describe multiple things.¹

According to liberal theory, education is considered a route to social mobility and a key for individual and social progress (Emediato, 1978). It is not our intention to deny this individual progress, however in order to move forward towards it, we understand that the relationship between education and social transformation overcomes the issue of economic development and social mobility, connecting to broader struggles of social reality and the struggle for social justice. Thus, when education democratizes the ownership of knowledge historically constituted by humanity, it coincides with the struggle for a society free of inequality and injustice.²

¹For example, Pearson Education Corporation has recently published a report entitled *Preparing for a Renaissance in Assessment* (Hill & Barber, 2014) in which the company claims by an *educational revolution*, but from a very reactionary way.

²The appropriation of knowledge in its most developed forms coincides with the appropriation of the means of production, as knowledge is part of the means of production in the capitalist system and that is the reason why it cannot be socialized without struggle (Saviani & Duarte, 2012).

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However, the relations between education and social transformation are complex; this is not a simple relationship of cause and effect. Educational transformation, although urgent, finds its limits in social transformation because education is a practice located in a broader context.

Cury (2000) argued that “The possibilities of education are expressed in the consciousness of its limits” (p. 122). That is, it is impossible to pretend that education, as hegemonic proposal, is the solution to promoting the process of radical transformation of society.

Having illuminated the limits that education presents in a capitalist society, we move to the possibilities of action that education provides – because it is immersed in a contradictory system – to the construction and transformation of social reality. Or, as Freire (2000) argued when relating education to the broader society, if education alone does not transform society, neither will it change society without.

On the one hand, education alone cannot advance the development of the exploited classes. On the other hand, education carries the foundation for transformation and a new conception of the world. Although this process does not guarantee social transformation, education is a crucial step for change to happen. It demands the transformation of epistemological and ideological assumptions underpinning the concept of the education in question.

It is in the process of conscientization that education finds its major function. It allows the oppressed classes a consciousness about their situation and about the mechanisms of oppression. The role of school is not limited to word reading, because its true function is a result of word reading as a tool for reading the world. This reading takes place as a process of conscientization – a process by which men and women prepare themselves in a critical way for inserting or participating in an action of transformation. Thus, education breaks up the naive perception of reality (Freire, 1997).³

Conscientization itself does not transform reality; however, it is necessary to articulate the process of conscientization to the radical transformation of society. Or rather, conscientization needs to be translated into a conscious action transforming reality. Therefore, it is necessary and urgent that educational transformation overcomes a model based on accountability, meritocracy and commodification of education, precisely because these characteristics are incapable of overcoming social inequalities within the school (Apple, Au, & Gandin, 2009; Zeichner, 2010a).

Current teacher education organizations around the world reiterate and justify programmes structured on commodification, philanthropy, and meritocracy (Zeichner, 2010a, 2010b). Neoliberalism and post-modernism act as intellectual

³The conscientization of the social class structure of society is crucial (as discussed by many authors Snyders, Freinet, Manacorda, Makarenko, Pistrak). Issues related to the politics of recognition (cultural struggles against domination – such as multiculturalism – and struggles for identity) need to be considered together with class politics (processes and dynamics of economic exploitation by capital).

watchdogs defending these programmes. For example, Teach for All⁴ is a phenomenon in 35 countries, with a very pragmatic understanding of teaching and learning. These initiatives in mainstream public policies are moving against teacher education for social justice.

It is not just a theoretical preference that moves us to write about education for social justice in order to achieve social transformation. This engaged understanding of education is due to realities in the context of increasing social inequalities. The arguments presented here, connecting reality and education, contribute to the collective construction not just of a Pedagogy of Resistance, but also to update the Pedagogy of the Oppressed. It is the goal of these pedagogies and educational processes to overcome forms of oppression – like gender, ‘race’, sexuality, class and others – within a capitalist society that is constituted by its own development.

In the case of teacher education, it is essential that teacher education programmes are closely linked to schools and communities, and connected to broader movements for social transformation (Zeichner & Flessner, 2009). Thus, teacher education in a counter-hegemonic perspective, is based on the partnership between community-school-university (*hybrid space*), and is understood as a possibility for the formation of teachers committed to social transformation (Coffey, 2010; Flowers, Patterson, Stratemeyer, & Lindsey, 1948; Murrell, 2001; Zeichner, 2010b). While the role of schools is essential in the enterprise of preparing future teachers, the role of communities and knowledge that exists among various groups and various neighborhoods is also critical in teacher education (Zeichner, Payne, & Brayko, 2015). The latter issue usually remains a gap in the discussions about teacher education.

The hybrid form of preparing future teachers has reemerged in the last decade, combining elements of both early entry and college recommending programmes. In the new hybrid programmes teacher candidates spend more time in clinical work than in traditional college and university programmes, but they do not assume responsibility for a classroom until they complete their programmes (Zeichner, 2014a, 2014b). The potential for clinical preparation is based not just in field experiences, but in the combination of practice with theoretical knowledge, “creating *hybrid spaces* in teacher education where academic and practitioner knowledge and knowledge that exists in communities come together in new, less hierarchical ways in the service of teacher learning” (Zeichner, 2010b, p. 89). The idea is to rethink the traditional ways of organizing both campus and field-based teacher education in ways that promote a nonhierarchical collaboration in connection with community expertise.

This understanding of teacher education requires a greater understanding of ‘site’ for pre-service teacher preparation as campus and schools to the broader communities in which schools are situated (Murrell, 2001; Zeichner, 2010a). The *third*

⁴Teach for All is an umbrella organization of 35 teacher education projects around the world funded by a mixture of private philanthropic and public sources. The core premise of Teach for All is that gaps in educational as well as societal outcomes can be eliminated through educational interventions alone (Ellis, 2014). World Bank is one of the supporters.

space is the physical as well as socialized space in which people interact, often in hybrid roles, and where the responsibility for teacher education is democratically shared between school, university, and community.

The idea of a *space* where university, community, and school come together is here emphasized. The educative process takes place in a specific geographical area where the school is located and where the community lives. This process is part of 'everyday life', an assertion that knowledge of a community starts with what happens in the lives of people living within it (Sandler, 2009). Therefore, we rely on Bauman (2001) and Freire (1991), and suggest that community is understood as a collective of individuals of the same territoriality and the same social class that share certain existential conditions, to resist domination, exploitation and expropriation of their livelihoods. Accordingly to this, community makes priorities of friendship and altruism, cooperation, voluntarism, compassion and mutual obligation, not instrumental gain, and it challenges the social, political and economic arrangements in societies that divide people. What is required is "a shift from antagonistic to agonistic politics, where consensus is not expected, and compromises are sought but recognized as 'mere temporary respites in an on-going confrontation'" (Lynn, 2006, p. 116). The abiding community principle of social justice takes it beyond the liberal principle of toleration of difference and formal equality, to seeing that groups that are unequal require resourcing to address material or other deprivation (Little, 2002).

One of the resistances that community can contribute and develop is a supportive alternative to the kind of individualism that is a product of economic rationalism (Lynn, 2006). Collins (2010) argues that "The notion of 'community' is a major vehicle that links individuals to social institutions" (p. 11). However, this must occur without surrendering the political usage of human resources in community to be exploited. Governments, in their expectation of community providing self-help and voluntary assistance, should not be absolved of their responsibilities to provide social infrastructure (Lynn, 2006). Ultimately, community is at the heart of theories and practices of resistance (Philip, Way, Garcia, Schuler-Brown, & Navarro, 2013).

Working with communities in this manner of supportive alternatives can promote powerful experiences to support future teachers and their teacher educators in deconstructing the messy tangle of racism, classism, poverty, and sexism. Supportive alternatives conversely create opportunities to reconstruct maintainable positions within a commitment to social justice.

There is a challenge for these relationships: to avoid conversion into pragmatic and utilitarian pathways to teacher education. If the *hybrid space* has the potential to be transformative, it also has the potential to replicate social inequalities; specifically, to possibly reiterate inequalities of the broader society into schools. Collaborative work of community-school-university aims cannot, for example, segregate upper class students from lower class students, nor should it take responsibility for public education away from the state. Thus, it is always necessary to question the social determinants, to question the meaning of education, and whose interests are benefitted. Teacher education in third spaces has the potential to enable new perspectives for social organization beyond common sense.

In addition to the many challenges for non-hierarchical school-university-community relationships, there is also need for caution. Foundational to standing with community, which demands the struggle for recognition, is the simultaneous connection with the struggle for redistribution (Bauman, 2001). Specifically, it is essential that new academic, culturally responsive disciplines become part of the curriculum. Culturally responsive teaching, ethnic studies, and multicultural education have made strides through increasing the inclusion of women's history, African-American, LGBTQ, Latino/a, and other minority communities in the curriculum. However, there are few studies on the unemployed, the homeless and those who live in mobile or transitional spaces. (Rorty, 1998). We agree with Nancy Fraser (1999) when she protests against the indiscriminate separation of the cultural politics of difference in relation to social policy of equality. The ultimate goal of struggles for recognition is the universality of humanity, as we are all interdependent and none is master of their destiny detached from the rest of society.

Given the argument for teaching and teacher education grounded in social transformation, the following sections aim to discuss teacher education programmes that claim to be working for greater social justice while contributing to educational and societal transformation. We first present different visions of social justice, with emphasis on how these concepts are linked to either maintaining the social *status quo*, or a commitment to educational and societal transformation. In the second part, the latter notion of social justice is articulated to teacher education working from a community-based perspective. Here we explore examples of these types of relationships between community and teacher preparation in different countries that contribute to a greater understanding of how curriculum and pedagogy work in these programmes. The third section discusses two case studies of teacher education programmes working from this perspective; a case in the United States and another in Brazil. In our final discussion, we articulate future possibilities for community-school-university collaborations in teacher education. Working in the dialectic tradition, we aim to move forward and improve the level of education committed to greater social justice as well as to highlight the dilemmas and limits often unearthed by such complex partnerships.

Social Justice in Teacher Education

Theorizing Social Justice in Education

As argued above, social justice in education, and by extension in teacher education, can be articulated in any number of ways. In early work theorizing social justice, Fraser (1999) challenged common assumptions that social justice is defined by either questions of distribution or recognition. Ultimately, Fraser offered perspective dualism, a complex framework unifying the politics of distribution and recognition. In her later work, Fraser (2005) updated the framework to include a third strand of representation, or politics, and a focus on contextually specific theories given an increasingly globalized world. Fraser identifies 'misrepresentation' and

‘misframing’ as forms of injustice, arguing that ‘the who’ problematizes not only the substance of justice, but also the framing of the debate. The politics of ‘misframing’ arise from the Keynesian-Westphalian frame through which much of the west, often neoliberal decision-makers, view the world.

Whether the issue is distribution or recognition, disputes that used to focus exclusively on the question of *what* is owed as a matter of justice to community members now turn quickly into disputes about who should count as a member and *which* is the relevant community. Not just ‘the what’ but also ‘the who’ is up for grabs. (p. 4)

Fraser (2005) pushes the new framework a step further by expanding ‘the who’ in a theory of democratic justice that necessarily takes up ‘the how’. In shifting from monologic to dialogic theory,⁵ Fraser argues that the democratic process applies to every level of ‘the what,’ ‘the who,’ and ‘the how.’ Keddie’s (2012) critical reading of Fraser’s framework largely supports these turns and cautions about the danger, as did Young (1990) in falsely separating/polarizing areas of social justice. Keddie argues the need for vigilance in complex theories recognizing difference and its intersectionalities, as well as the multilayered approach that engages the broader historical and political contexts that produce disadvantage in the first place.

Given these theories, one might classify historical changes or shifts in educational policy according to social justice questions of redistribution and recognition. Unfortunately, this dismisses the political that ultimately shapes the framing, action, and interpretation of outcomes. Applying Fraser’s complex framework illuminates the misframing and misrepresentations that can hinder justice.

For example, in the historic *Brown v. Board of Education* US Supreme Court case (1954), the court ruled that separate but equal schools for Black and White students was unconstitutional. This can be interpreted as a case for social justice demanding all students have the equal access and to public schools. Yet as scholars have since questioned, integration was interpreted as moving Black students into White schools, rather than as a bi-directional integration, and that separate meant inherently unequal (Ladson-Billings & Tate, 1995; Siddle Walker, 1996). The Individuals with Disabilities Education Act (1975, 2004) similarly ruled that children with disabilities receive free appropriate public education, just like everyone else. It has since seen a number of major revisions throughout the years; among the reasons for revision were arguments that the original legislation lacked definitions as well as outcomes or measures of accountability.

Alternatively, legislation supporting the recognition of different groups of students in the US challenges an oversimplified argument for distribution. For example, the Bilingual Education Act of 1968 was intended to fund bilingual education and recognize the obligation of the state to support students whose first language was one other than English. Similar to the distributive challenges highlighted above, opposition to recognizing multiple languages in schools often resulted in such legislation as California’s Proposition 227 (1998), mandating English-only instruction.

⁵Fraser explains her view of the dialogic in that “philosophical analyses of affectedness should be understood as contributions to a broader public debate about the principle’s meaning.” (p. 14). We add our interpretation of the political in the dialogic as part of a larger dialectic in praxis as theorized by Bakhtin (1981) and Freire (1999).

This effectively eliminated bilingual education and reversed much of the ground won in the original federal act (Parish, 2006). More recently, the Tucson Unified Mexican American ethnic studies programme was dismantled despite overwhelming evidence in support of strong academic gains among its students (Cabrera, Milem, Jaquette, & Marx, 2014). However, though Arizona House Bill 2281 (2010) legislation effectively banned ethnic studies in Tucson, both San Francisco Unified and Los Angeles Unified School Districts in California have since adopted ethnic studies as high school graduation requirements for all students attending school within their respective districts (Ceasar, 2014; Planas, 2014).

Ultimately, questions of social justice must also be understood within a particular geographical and sociohistorical context. That is, for each layer focused on redistribution, and recognition, there necessarily demands the final question of representation and ‘for what purpose’? What counts as official knowledge and who holds it? (Apple et al., 2009; Labaree, 1997).

Here we offer a framework to help understand enduring questions that drive much of the debate around equity, social justice, and schooling in the United States. Figure 21.1 provides a graphic representation of social justice in education. Each set of distributive questions is accompanied by questions of recognition. Beginning with questions of access and equity necessarily leads to questions of adequacy, quality, and accountability. A third layer of questions, Fraser’s (2005) third strand of politics or recognition, surrounding the epistemological ‘who,’ and the ontological ‘how,’ underlie both distribution and recognition. For example, if all students have access to a quality education, who decides what the education is and how it is taught?

To illustrate, consider the current neoliberal movement towards a definition of social justice in the US. It has moved much further towards accountability through an increasing focus on testing and teacher evaluation. Each policy move towards a more equitable or just education for all seems to have met with a host of challenges to the assumptions underlying that policy.

Fraser’s (2005) framework calls for a definition of social justice that is able to simultaneously balance claims for redistribution, recognition, and representation. She notes that not all claims hold equal weight, for example the case of racist claims which are not just should not be equally considered. Given this complex definition, and dangers in competing claims, crafting balanced, socially just policies to guide educational systems would seem impossible. However, a different understanding of social justice in education, one that is for and with communities engaged in social transformation of the everyday lived experiences, may guide possibilities.

Social Justice ... Just Justice in Education

In her keynote speech on social justice delivered at the meeting of the American Educational Research Association, Gloria Ladson-Billings (2015) argued the need to redefine social justice in education. She called for educators to work towards “justice ... just, justice” when challenging the many injustices our children have historically and currently face in schools. Ladson-Billings invoked a non-Western

Focus on redistribution		Focus on recognition	
Access and Equity	• Do all students have access to the same education?	Access and Equity	• Should all students have the same education at the same time?
Equity and Adequacy	• Is that education good enough?	Equity and Adequacy	• Are those standards the same for different individuals or groups?
Adequacy and Quality	• More than good enough, is it what they should be getting? • What is the best they can get?	Adequacy and Quality	• Is quality valued? • How is quality decided or determined?
Quality and Accountability	• Whatever it is, how do you know they learned it?	Quality and Accountability	• What if there are different desired outcomes? • How are we defining success?

Focus on Representation	
Access and Equity	• Who decides what should be taught , or learned?
Equity and Adequacy	• Who decides the baeline ? • How are the different levels determined?
Adequacy and Quality	• Who decides the possibilities?
Quality and Accountability	• Who decides how we define success? • Who decides if success is reached? How do they decide?

Fig. 21.1 Social justice in education using Fraser’s framework (2005)

definition of justice from which to work, suggesting, among others, everyday justice as an alternative, and a move from justice as theory to justice as praxis. The work of Amarty Sen (2009) informed definitions of justice found in Sanskrit literature: *niti*, the organizational property and behavioral correctness (strict rules), and *nyaya*, a comprehensive concept of realized justice (the larger focus, or big picture).

Given the many injustices in the US (one of the largest prison population in the world, of overwhelmingly African American and Latino/a ethnicities, burgeoning student debt stemming from the privatization of higher education, physical and mental student trauma from immigration, violence, rising student homelessness, and unprecedented closures of urban, public schools) the need to focus on the larger picture is understandable. Simultaneously, the scope of injustices across the globe

(including but not limited to landless workers, women's rights, transnational migration and border violence, access to healthcare and/or education, climate change and environmental injustice) implies two major shifts in how social justice in education, teaching, and teacher education is defined: (1) shifts in geographically-bound, often western-based, national framing; and, (2) the responsibility to engage in the struggle against global injustice by working in solidarity⁶ with existing movements (Apple, 2010; Young, 2004).

Socially-just teacher education programmes engaged in these movements for justice ... just justice, social transformation, or the everyday lived lives of our communities, therefore necessarily begin with the local communities most affected. Before turning to the possibilities for teacher education for social transformation, we review the literature on social justice in teacher education as it has been used, largely in the US.

Social Justice in Teacher Education

Having reviewed an increasingly global definition of a democratic social justice for social transformation, we will now review literature on social justice as it has been used in teacher education. Though this literature is admittedly limited in scope due to its western lens, it is helpful to understand the ways disputes surrounding distribution and recognition have developed in teacher education within a given context.

In studying trends in teacher education reform at the time, Zeichner (2003) identified three agendas: the *professionalization agenda*; *deregulation agenda*; and, *social justice agenda*. He noted the strengths and weaknesses to each approach, and argued that none alone was singularly adequate for achieving the goal of providing every child with a high-quality education. Zeichner called for the three approaches to “come together to find some common ground to more effectively educate teachers and to establish the social preconditions that are needed for this quality of education to be realized” (p. 491). Ultimately, he argues, the three approaches are neither mutually exclusive nor sufficient unto themselves; all three are necessary for debate, consensus, and to find a way forward.

Though the need for debate and consensus is necessary, there is danger in either the professionalization or deregulation agenda claiming a social justice agenda, or what Fraser (2005) might call misrepresentation or misframing. Similarly, it is also possible that the social justice agenda makes arguments for the professionalization agenda. For example, in a graduation speech delivered at the Harvard School of Education, former Secretary of Education Arne Duncan claimed that all education is a daily fight for social justice (Duncan, 2010). Viewed through this lens, movement

⁶For a thorough discussion on decolonizing solidarity see Gatzambine-Fernández, R. (2012). Decolonizing the pedagogy of colonization. *Decolonization: Indigeneity, Education & Society*, 1(1), 41–67.

towards a global curriculum, the expanding privatization of schools, and calls to privatize teacher, can be understood as cases of competing agendas, including corporate, may co-opt the language of social justice. (Sleeter, 2008; Stitzlein & West, 2014; Zeichner, 2014b; Zeichner & Peña-Sandoval, 2015).

On the other hand, social justice can also make claims, for example, to the professionalization agenda. In their study of critiques of the social justice agenda, Cochran-Smith, Barnatt, Lahann, and Terrell (2008), examined claims that social justice in teacher education is an ideological “disposition” to which teachers could not be held accountable. The authors argue the underlying assumption that accreditation or teacher certification standards are apolitical. This argument also implies that teaching for social justice does not include testing or measurable accountability.

Cochran-Smith and colleagues (2008) are clear in refuting these claims. They argue that both teacher and student standards are indeed political; in fact all teaching is political. Social justice does not mean lower standards or lack of accountability; quite the opposite, social justice calls for constant interrogation of knowledge.

Against the political backdrop of competing ideologies and agendas, social justice can range from curriculum choices, to preservice teacher disposition, to student and teacher performance measures. It is important here, however, to note Cochran-Smith’s (2004) caution against the temptation to study teacher education as a series of questions focused on either input or output measures.

For example, the theoretical and empirical studies on social justice in teacher education in the US have largely focused on the distributive; more recently, given the rise in multicultural education, ethnic studies, including White studies, gender studies, ability studies, and culturally responsive teaching, on recognition forms of social justice, (Grant & Agosto, 2008; Kaur, 2012; Wiedeman, 2002). It can be argued that studies focused on the curriculum, instruction, and experiences of preservice teachers are singularly attentive to input measures. Without looking at the effects on preservice teacher or future student learning, critics argue an incomplete study of social justice.

In their recent review of the past decade of research on teacher education, Cochran-Smith and Villegas (2015) suggest that teacher education has been focused on questions concerning curriculum, effectiveness, and knowledge (see Fig. 21.2). They do not make the case for a shift in focus to output measures; rather, they argue that the current preoccupation with questions of policies and learning in teacher education are also limited in scope. Ultimately, they recommend future research questions link that teacher learning to student learning and to teacher candidates’ beliefs and practices, and to questions that examine the relationships between research practices and social, economic and institutional power.

In an earlier study, Cochran-Smith et al., (2008), concluded that inherent tensions in teacher education require a common social justice framework from which scholars can work. Similar to Fraser (2005), they argue “the danger ... is that we will sacrifice the healthy and vital contribution of critique for what is arguably the greater good of consensus” (p. 114). Social justice in teacher education, they argue, requires embracing the necessary tension between critique and consensus. In their

Past:	Present:
The curriculum question	The policy question
The effectiveness question	The learning question
The knowledge question	

Fig. 21.2 Limited scope of questions preoccupying teacher education (Cochran-Smith & Villegas, 2015)

work on complexity theory in teacher education, Cochran-Smith and Villegas (2015) explore such a framework.

We do not mean to suggest that the literature on social justice in teacher education can be easily classified according to the social justice in education framework presented earlier in this chapter. Many have worked towards developing a framework for social justice in education from which to collectively work (Cochran-Smith et al., 2009; North, 2008). Some argue a conception of justice that begins with domination and oppression, bringing a critical perspective to the ‘who’ or ‘what’ being studied, and from which perspective given a capitalistic structure (Kumashiro, 2000; Leonardo, 2012; Young 1990). We suggest that input and output measures in teacher education are embedded within questions of access and equity, equity and adequacy, adequacy and quality, and quality and accountability, of a socially just educational framework. Each level necessarily leads to the next, and no one can be considered in isolation from the others. Finally, social justice in teacher education must simultaneously consider all three questions of distribution, recognition, and representation.

Access and Equity

There are any number of questions surrounding access and equity and at any number of levels within teacher education, including but not limited to curriculum, pedagogy, and programmatic choices and policies. Admission policies, for example, screen for certain characteristics and qualifications, moving teacher education towards a professional preparation model akin to those found in law or medicine. However, increased selectivity in recruiting “higher quality” applicants results in an ironic side-effect creating barriers to others. Equity in admissions must also consider who determines admissions policies as well as who benefits. We might ask: Do applicants have equal access to teacher preparation? Or do structures or programmes discriminate? And who decides which candidates are admitted?

In 2001, the National Council for the Accreditation of Teacher Education (NCATE), an organization charged with accrediting teacher education programmes

in the US, included 'social justice' as an example of a desirable disposition to be found in teacher candidates. In 2005, only four short years later, NCATE removed the term 'social justice' from its mission statement. They argued that though the term social justice was removed, ideas related to social justice remained in its mission. Wilson (2007) argued that the accrediting agency's decision to remove the term was in response to attacks from critics worried that programmes were using this type of language to weed out candidates according to 'dispositions' or attitudes. In 2006 the Rand Corporation conducted a study on teacher education reform efforts that echoed a similar concern about social justice in teacher education (Kirby, McCombs, Barney, & Naftel, 2006). They argued that by screening for a social justice disposition, teacher education in effect would limit equal access and discriminate against those that didn't have the right attitude.

Though critics of social justice argue that disposition is not a characteristic for which programmes should screen, Cochran-Smith (2004) suggests that teaching is difficult and uncertain and perhaps yes, requires a certain kind of person. In other words, teaching is a matter of developing a certain kind of pedagogy as much as learning to theorize pedagogy. Most teacher education programmes include some type of admissions criteria and some have created standards and/or rubrics to help ascertain characteristics related to social justice, arguing that assessing teacher candidates' dispositions related to social justice is both reasonable and defensible (Nieto, 2000; Villegas, 2007).

Similar to the disposition argument, calls to diversify the teaching force through teacher education point to a need to rethink recruiting and admissions (Kohli, 2009; Philip, 2011; Sleeter, 2001; Villegas & Irvine, 2010; Villegas, Strom, & Lucas, 2012). The gap between the diversity of teachers and the students in their classrooms continues. Exam scores, prerequisite courses, and a dearth of funding opportunities have prevented many from applying to traditional, or university-based, teacher education programmes. Some have suggested that early-entry programmes, or programmes offering paid positions to preservice teachers, create more diversity in the teaching force. However, this leads to another major debate in teacher education regarding the adequacy of training that preservice teachers receive given the many types and variety of programmes available.

Equity and Adequacy

Given the many types and variety of teacher education programmes from which a future teacher might choose, what are the differences? Do different types of programmes mean that teachers get a different education? And is that such a bad thing? Should all programmes teach or be structured in the same way? These questions would seem to lead us to the separate but equal debate that continues in the broader educational system.

In their work exploring alternative routes to teaching, Grossman and Loeb (2008) bring together a community of scholars to explore the 'alternative' in teacher education. In the process, much of what is considered 'traditional' is also questioned. For

example, in their work on preservice teacher demographics, Hammerness and Reininger (2008) highlight the increasing number of teachers of color enrolled in alternative programmes versus traditional. This positive development is however tempered when looking at the increasingly diverse make-up of the k-12 student population in the US. That is, though the overall number of teachers of color has increased, the gap between the ethnic backgrounds of the student population and their teachers continues to widen (Villegas, 2012).

Also of concern is the curriculum in and across each programme. Differences in curriculum and pedagogy lead to many questions surrounding the quality of programming briefly discussed in the next section. It is important here to note however, missed opportunities to recognize differences, particularly for those preservice teachers from marginalized or non-dominant communities, within a variety of programmes. These preservice teachers and the assets they bring are often overlooked, or go unrecognized, in assumptions made about who goes into teaching, what knowledge they bring, and the many definitions of pedagogy often rooted in culture (Philip, 2015; Sleeter, 2001). It is possible that programmes geared toward preparing a majority White, female, suburban, teaching cohort are not adequately serving preservice teachers from non-dominant, marginalized, or oppressed communities.

Continuing with our example of diversity in the teaching population, this leads to the question: but what are they learning? If there are more teachers of color in alternative programmes, are they getting the same quality of education as their peers in traditional programmes?⁷ That is, are we creating a tiered, or unequal, system for teachers and by extension teachers of color?

Adequacy and Quality

The debate around type and quality of teacher education programme prompts many to argue the need to compare existing programmes and their respective components. However, this has led to some difficulty as programmes often differ not only in components, but in the vocabulary used in naming components. This has led to calls for a common language in teacher education, beginning with the naming of teaching practices, or the enactment of pedagogy, that most positively affect student outcomes (Grossman, Hammerness, & McDonald, 2009; Grossman & McDonald, 2008).

Using this example, a logical step for proponents of high-level practices, or core practices, is to make the case for this type of practice-based teaching as teaching for social justice (McDonald, 2010). That is, access to quality teaching, as defined by high-leverage practices, is a social justice issue for students in the classroom. This argument addresses critique that “teacher education for social justice does not, does not want to, and could not even if it wanted to, promote pupils’ learning of subject matter knowledge and skills” (Cochran-Smith et al., 2008, pp. 630).

⁷For more on the history and development of teacher education in the US, see Fraser, J.W. (2007). *Preparing America’s teachers: A history*. New York: Teachers College Press.

Though social justice in teacher education is a complex, often more rigorous endeavor, Cochran-Smith (2004) also cautions against using ‘best practices’ as the route to address social justice, offering instead guiding “principals of pedagogy” (p. 65). Drawing on Freire’s definition of *praxis* and the dialectic, she argues that the diversity of individual students in individual communities makes one set of best practices impossible. Praxis requires knowledge of theory in order to enact that theory. That is, one cannot simply practice without theory. Proponents of core practices do not deny this, arguing the need for both theory and practice and challenging foundations courses to enact or model practice in their own teaching. Yet, the primary goal remains the creation of a set of common core practices.

Teacher education is criticized for its slow response to gaps in student achievement as well as to feedback from its own graduates feeling ill-prepared for classrooms. The turn towards practice-based teaching is not new, it is a turn that resurfaces when there are calls for increased focus on high quality teaching and learning (Zeichner, 2012). However, previous iterations have had limited success and lessons learned from those attempts serve as warnings for the current movement. One example of the danger in developing core practices is in creating practices that are too general; leading to scripted teaching and technocratic work.

Core practices are meant as teaching moves that teachers can adapt or transfer to different contexts. Yet, considering Fraser’s (2005) framing of social justice and the need to attend to representation, practice and pedagogy are also epistemologically contested ground. In this sense, practice-based teaching is akin to colorblindness. For example, at the moment core practices do not include indigenous pedagogies. Rather, they advocate a scientifically proven set of practices, based in research and apolitical in nature.

In which case, the discussion surrounding what exactly teachers learn in a teacher education programme remains. One suggestion is for preservice teachers to focus on inquiry, challenging teachers to have deep knowledge of their subject matter but to simultaneously question that knowledge and begin with what students know (Cochran-Smith, 2004). Many programmes now include inquiry-based projects as required coursework to be completed by preservice teachers.

Ultimately, whatever the content or component of a teacher education programme the question becomes: how do you know it works? That is, both core practices and inquiry-based teaching must show student success, right? Otherwise why bother?

Quality and Accountability

Returning to the example of diversity illustrates another challenge in teacher education for social justice. Once teachers have graduated from their programmes, are they any good? How do we know if one is a good or a bad teacher?⁸ What type of

⁸For more on the rhetoric of good and bad teachers, see Kumashiro, K. (2012). *Bad Teacher!: How blaming teachers distorts the bigger picture (Teaching for Social Justice)*. New York: Teachers College Press.

program creates the good ones? And do they stay in teaching? Though these questions might apply to all teachers graduating from preservice programmes, considering what types of programmes are educating most teachers of color, these questions have particular implications for diversity.

The latter question appears most problematic. If quality is the social justice issue, why should retention matter? It would seem that one doesn't have to do with the other. Yet, in their study of the effects of teacher turnover on 850,000 New York fourth and fifth grade students, Ronfeldt, Loeb, and Wyckoff (2013) found that students in grade levels experiencing higher teacher turnover score lower on both English Language Arts (ELA) and math standardized exams. They argue that effective teachers leave schools with lower-performing students and that this runs contrary to organizational studies suggesting some turnover is healthy for increased quality of work. The authors show particularly strong trends in schools with larger percentages of lower-performing and Black students. That is, lower academic scores accompany higher teacher turnover and this is more pronounced in schools that are already performing lower on standardized tests. The authors conclude that teacher turnover also disrupts staff cohesion and community, as related to student engagement and achievement.

Echoing these findings, specific studies of diversity in teaching reveal complicating trends. Previous studies have revealed that teachers of color tend to stay longer than their white colleagues, but this trend has reversed in recent years. Though there are an increasing number of teachers of color entering the profession, they are also leaving at higher rates than their white colleagues (Achinstein & Ogawa, 2011; Achinstein, Ogawa, Sexton, & Freitas, 2010; Albert Shanker, 2015; Grissom, 2008). Some attribute this reversal in trend to a general lack of attention to better working conditions for all teachers (Buckley, Schneider, & Shang, 2005; Ingersoll & Smith, 2003; Johnson, Kraft, & Papay, 2012). While others have attempted to attribute affects of preparation programmes on beginning teacher attrition (Ingersoll, Merrill, & May, 2014).

Preservice programmes differ in a variety of requirements such as entrance requirements, coursework, student-teaching experiences, mentorship and/or apprenticeships, vary in length and quality of time, include different licensure exams, and can offer alternative certifications across states and programmes (Humphrey & Wechsler, 2008). What is most concerning is that the most inexperienced, fast-tracked teachers are disproportionately teaching in the most under-resourced schools (Goldhaber, Lavery, & Theobald, 2015). Yet the same argument advocating fast-track programmes is used to show that the most under-resourced schools and students are disproportionately receiving the most ill-prepared, low-quality teachers from the so called 'traditional' programmes (Gastic, 2014).

Local and national movements to improve teacher accountability, and by extension accountability in teacher education, are subject to these types of contradictions in competing agendas for quality and accountability, in the form of standardization. In considering distribution, recognition, and representation in the quality and accountability of teacher education programmes, we argue that teacher educators are culpable when we oversimplify the role of education in our society (Cochran-

Smith, Piazza, & Power, 2012; Zeichner, 2010a). Oversimplifying teacher education risks dismissing the social, political, cultural, and economic history of the unique communities in which we serve (Murrell, 2001; Picower, 2011), as well as the complicated political contexts within which they exist. As Cochran-Smith (2004) cautions, we succumb to the danger of “conflating teacher education and teaching quality” (pp. xix).

Thus returns the problem of quality and accountability and the complexity of an equitable distribution of quality teachers, recognizing differences, and understanding the politics of those framing the discussion. It might seem impossible to approach a social justice framework that can account for these simultaneously intersecting dimensions. However, teacher education has been working towards social justice in multiple ways for a number of years, and there is much to be learned in moving towards a more comprehensive framework.

For example, in their review of the social justice in the teacher education literature, Grant and Agosto (2008) identified the following emergent themes in programmes advocating social justice: the role of critical pedagogy; of teacher community and collaboration; reflection; social (critical consciousness); social change and change agents; culture and identity; and, relations of power. They note overlapping and interrelated themes as is needed in such a complex endeavor as teacher education.

Grant and Agosto (2008) also noted little attention to teacher education programme context, and very little discussion of teacher education for social justice working for the good of society. They argued the need to develop conceptual tools for the adjudication of actions, and suggest that research on teacher capacity must accompany such work. That is, educators need conceptual tools to help discern competing agendas for social justice and to develop the capacity for such work.

We do not claim to offer standardized conceptual tools for the adjudication of social justice here. Rather, we argue that preservice teachers and programmes of teacher education must exist within context and in solidarity with the perspective of those most marginalized. Working in solidarity also suggests a greater capacity when teachers view themselves as part of a team of educators in a collective. We argue this is a turn from social justice as *niti*, or the organizational rules, to social justice as *nyaya*, the broader picture or lived experience for social transformation. The adjudication of socially just action occurs in the dialectic, in the conscientization that comes from reflection, practice, and praxis. While both attention to organizational structures and rules are necessary, not enough attention has been paid to broader societal realities. Community voices will necessarily bring the representation that has been lacking, and through less hierarchical structures, undoubtedly affect the organizational rules of social justice in teacher education.

Engaging Community-Based Educators and Contexts in Teacher Education and Its Possibilities for Overcoming Inequalities

In this part of the chapter, we do not pretend to speak for all nations at all times, but to offer an overview of teacher education programmes in different countries (most of them in the American continent) that closely work in partnerships between school, university, and community. We specifically highlight the roles assumed by educators in both university- and community-based teacher education programmes. Though much of the literature we present theorizing experiences with communities and teacher education is based in the United States or Latin America, we do not make claims to generalization as it is our position that varying contextual factors greatly affect all relationships. More specifically, understanding local sociohistorical contexts is prerequisite when thinking critically about education and teacher education.

The literature on experiences with community and teacher education indicates that they are not widespread among programmes; consequently, they are not commonly visible for much of the field, not even in the critical education research community. These experiences are usually developed at the system's edge and have not been mainstream practice in college-recommending nor early-entry programmes (Zeichner et al., 2015). Many of them are carried out with(in) indigenous and rural communities, or as in the case of the US and Western Europe, with emphasis in immigrant communities near urban teacher education programmes. It is important here to note that language is an important and central aspect of immigrant communities, and that this is unique within the broader diversity project.⁹

The challenge to ensure that future teachers, specifically in urban areas, learn to see themselves as part of a school's community and also of a broader community, has gained ground in discussions about teacher education. A key piece in this perspective is found in Murrell's (2001) work theorizing a vision and framework for what he calls *The Community Teacher*. Murrell argues:

A key component of the new national agenda is collaborations among institutions of higher education, K-12 schools they work with, and a broad community constituency. The success of urban school reform will depend, in part, on how the new national agenda makes good on enthusiasm for creating new 'communities of learning', embracing diversity, and preparing teachers through community and collaborative partnership. (p. 2)

'Making good' on community and collaborative partnerships has meant creating experiences with(in) communities and teacher education that are developed from multiple perspectives, in multiple spaces, and for differing lengths of time. For example, they can be short-term experiences characterized solely through a single course and/or through visits to a neighboring community (e.g., Cooper, 2007; Johnston & Davis, 2008; Sandler, 2009). Or, they might be organized over a longer

⁹It is also important to note that though studies in diversity focus on ability, gender, and the many forms of inclusivity, our project is primarily focused on ethnically-based communities.

period of time and with more intensive engagement, such as those immersing pre-service teachers in local communities (e.g., Gómez Zermeño, 2010; Guzmán, 2014; Matsko & Hammerness, 2013). Some programmes are elective (e.g., Silva, 2008), while others are required components of a programme that occur in addition to-, or linked to-, school-based experiences (e.g., Gallego, 2001; Stairs & Friedman, 2013; Zeichner & Bier, 2013).

Though these experiences take place across a variety of contexts, there are some similarities between them. One similarity found across programmes is that authentic work between community members, activists, teachers, and students, working together, must occur, and here we present a key word for such work, in collectivity. The role of 'expert' is not only held by teacher or teacher educator, but rather a role that can be assumed by those working and living in community. Collective work is therefore an underlying premise for all experiences that are presented here. In addition, the relationship between future teachers and institutions (not just university-based) is central to this work; especially in relationships between school, family, and community. This type of collective work enables preservice teachers to overcome professional isolation as well as cultural encapsulation, moving the beginning teacher to a more cooperative approach.

In Latin America for example, Paulo Freire¹⁰ and a collectivist perspective is important in popular educational frameworks. The Brazilian author points to interesting articulations between community and university, emphasizing non-formal educational spaces where public power is not always present. Freirian influences are found, for example, in: a university-recommending preparation programme that serves poor people at Rocinha favela in Brazil (Silva, 2008); a teacher education programme developed by the Landless Workers Movement in Brazil (MST) (Diniz-Pereira, 2005); a community institution receiving college students to work with oppressed communities in the countryside of Michoacán, Mexico (Sandler, 2009); and, a teacher education programme within an indigenous community in Colombia (Guzmán, 2014). Each of these programmes worked towards empowerment in their respective communities. Future teachers who experience this type of community-based fieldwork are encouraged to become activists, working in solidarity with communities in teacher preparation. Culturally responsive pedagogy allows candidates to engage in an active transformational process that enables them to develop the educational and sociocultural capital needed to become more effective practitioners (Rodríguez-Valls & Montes, 2011).

From this perspective, Guzmán (2014) recounts the story and the historical process of indigenous teacher education in Cauca, Colombia. The four decades of struggle began as a movement of indigenous resistance and is now a formal course of study organized by Cauca's community working in partnership with local universities. The course provides an undergraduate degree in Pedagogy with an emphasis in ethno-education and is supported by the State. In his study, Guzmán characterizes community as a space of educational, political and cultural educative processes that aims to achieve a true process of empowerment and communitarianism for

¹⁰Though Freire is most known for *Pedagogy of the Oppressed* (1997), his work spanned decades.

Indigenous Peoples with regards to the rest of the national society.¹¹ The same struggle was developed in schools – with emphasis on the cultural environment of surrounding communities, their relationship with Mother Nature, and on struggles and organizational processes. The orienting principles form an educational environment where the community is a prerequisite for the pedagogical model sought, and where the community is the main source of teacher education. The result is reflected in a set of prospects that include formation ‘in situ’, i.e., in places where teachers of record share guidance for pre-service teachers, and where university teachers and community consultants work together to develop projects for research and innovation emerging from previous community trajectories.

In addition to empowering work in solidarity with community, experiences working with(in) communities in teacher preparation enables future teachers to draw on the skills of family and community to assist in diversifying the curriculum; affirming diversity rather than ignoring or devaluing it (Nieto, 1999). Hence, this is a way to programmatically translate the principle of multiculturalism, and to enable future teachers to teach and learn in culturally diverse contexts. The changing demographics in urban centers reveal a widening gap between the backgrounds of teachers and the children they serve. Thus, it is important to understand how to help students and teachers recognize and overcome the harmful effects of social stratification, racism and gender oppression perpetuated by so many educational institutions. Cultural-immersion experiences can challenge preservice teachers’ prior beliefs and stereotypes about the students they teach, their students’ families, and the locations of their home communities. As a result, preservice teachers see themselves, their students, and their students’ families through a lens of strength instead of one filled with deficits, enabling teachers to build relationships that can potentially impact student achievement (Cooper, 2007; Matsko & Hammerness, 2013).

Moreover, working in community-based field sites encourages future teachers to deconstruct the assumed binaries of school/community, self/other, and teacher/student that so frequently limit beginning teachers’ conceptualizations of teaching and learning. It also leads preservice teachers to question the very meaning of diversity and equity and to include historically non-dominant communities in their work (Hallman, 2012). Opportunities to learn about these aspects of context may help deter preservice teachers from forming simplistic generalizations about schools, cities, or geographic regions, enable them to move beyond cultural stereotypes, and challenge them to dig into the nuances of local neighborhoods, schools, and classrooms that will eventually inform their teaching (Lee, Showalter, & Eckrich, 2013; Matsko & Hammerness, 2013).

¹¹ Guzmán (2014) highlights how pedagogy and politics merge as components of the task of being a community teacher and a collective identity. Assemblies, conferences, marches and manifestations are scenarios of ideological formation of activists, leaders, teachers of the teacher education programme. Thus, its curriculum is constituted as a long and arduous communal, practical, political, continuous and systematic process that goes on par with movement climate, and it can take many years to be achieved.

Gómez Zermeño (2010) highlights this type of deconstruction in her study of the education of community teachers working with indigenous in the region of San Cristóbal de las Casas, in Chiapas, Mexico. Gómez Zermeño argues the importance of bilingual education, strengthening the linguistic aspect for indigenous peoples honoring both their indigenous languages and simultaneously learning mainstream Spanish. In a similar linguistic approach, Sharkey (2012) emphasizes local knowledge and resources as starting points for teaching and learning from urban communities. Sharkey notes the rich resources for curriculum in urban communities, including ways teachers learn to see their students as inhabitants of communities with multiple linguistic and cultural assets.

This multicultural approach highlights the importance of working to create a more inclusive setting where the expertise of everyone is fully valued and accessed. It changes the nature of the culture into which the ‘others’ enter, and leads to more shared responsibility and joint ownership of a teacher education programme.

This leads us to the question *whose knowledge counts?* in teacher education. The role of community and the knowledge that exists among various groups and in various neighborhoods is critical in teacher education; knowledge is contextualized and thus cannot be learned in a university classroom away from the communities with which, and in which, teachers will work (Zeichner et al., 2015). Knowing is embedded within dynamic historical processes that form the social and cultural capital of particular ways of life, expressed in the *habitus*¹² of everyday action. “Pedagogical third spaces” challenge and expand what type of knowledge is valued in school and in the world at large. This requires more participants and more perspectives in the decision-making process, and that different views are seriously considered despite important differences about what constitutes good teaching (Apple, 2008).

In other words, teacher education is understood as a hybrid space, where academic, practitioner, and community-based knowledge come together in new ways to support the development of innovative and hybrid solutions to preparing teachers. A main challenge in the relationship between school-university-community is changing the logic of power to new, less hierarchical ways (Noel, 2013; Zeichner et al., 2015). Here we turn again to the question raised earlier by Zeichner and Payne (2013) “Whose knowledge should count in teacher education?” (p. 3), or similar questions asked by Morgan-Fleming (2013), “What knowledge has value? Why? and Who decides?” (p. 90). These are not naive questions; they address the political struggle in the context of various international initiatives that take knowledge out of the hands of communities, families, and local teachers, and put it directly into external evaluators and standardized tests (Exley, Braum, & Ball, 2011; Robertson, 2012; Tabulawa, 2003; Tatto & Plank, 2007; Verger, 2012).

Another common element among programmes working together with community is a process of working with people in a wide range of informal interactions. Sandler (2009) argues that the traditional curriculum is only part of this educational process, as the unplanned should have space to happen. In this process, the design

¹² See for example Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

of the space in which teaching takes place and where the partner community is located is structural, as a particular kind of space – the *third space* – it is a particular type of public sphere (it requires reframing the public) as a space in which relations develop and identities are defined.

A preferential methodological approach to the preparation of future teachers taking into account the above mentioned programmes, is to work with research, especially action research (Glass & Wong, 2013; Pasi, 2012; Pimenta & Lima, 2004; Rodríguez-Valls & Montes, 2011). Action research is selected due to the need to find responses and to improve practices along the way, without waiting for a final resolution (Elliot, 1991). The idea of such methodology is to reconstruct the colorless perceptions of community-based knowledge by generating action-research assignments, as well as to consider the field where future teachers will work as an object of analysis, research, and critical interpretation. These assignments trigger a genuine commitment to the discovery and appreciation of vernacular voices and their assets.

Evidence is emerging that teachers prepared for particular contexts have higher retention rates (Freedman & Appleman, 2009; Quartz et al., 2008). It may be that such preparation enables teachers to more successfully navigate their contexts, to know how to learn about them, supports them in their work and careers and contributes to move future teachers towards responding to student needs (Gallego, 2001; Hallman, 2012; Matsko & Hammerness, 2013).

Though work with(in) communities is incredibly powerful work, we would be remiss if we didn't highlight the many cautions that accompany this type of teacher education for social transformation. For example, this work does not imply that programmes accept any demand from community without negotiation. In earlier work, Zeichner (1991) noted the pitfalls of community empowerment. If not done collectively, it can lead to the ossification of teacher and administrator roles, because community demands could negate teachers' and administrators' visions for their schools. For example, if communities desire teachers to emphasize memorization and drill, absolute obedience to authority, and punitive disciplines, teacher educators cannot blindly follow their preferences.

For Zeichner (1991), a second caution arises from the dilemma created by the many groups co-existing in a democratic society. Some of what community may assert for their school may be in conflict with the principles of a democratic society, repressing particular points of view or discriminating against certain groups of people. To avoid these dilemmas, Zeichner – based on Amy Gutmann's work¹³ – argues that certain restraints are necessary in a democratic process that intends to preserve the rights of all within a democratic society. He writes:

These restraints are (1) nonrepression, which prevents the use of education to “restrict rational deliberation of competing conceptions of the good life and the good society,” and (2) nondiscrimination, so that no child may be excluded from an education adequate to participation in the political processes that structure choice among good lives. (Zeichner, 1991, p. 372)

¹³ See for example Gutmann, A. (1987). *Democratic Education*. Princeton: Princeton University Press.

Similar to Zeichner's cautions, Johnston and Davis (2008) noted a level of frustration when in a community-based teaching and learning programme in Australia. There are unavoidable tensions in utilizing the approaches outlined here. Teacher educators must be willing to field any frustration and sometimes anger from preservice teachers, some of whom bring a technical and individualistic orientation towards teaching. It means being willing to be challenged by students, to welcome debate and a certain degree of dissonance, including those kinds of tensions which can emerge in student evaluations of unit curriculum and of teaching and learning. In the referred study, future teachers tended to provide positive feedback just after the projects had been implemented and after the students had completed the formal evaluations of the unit. Thus, teacher educators must be prepared to justify these outcomes with their supervisors in the workplace.

Working with communities is not a 'neutral' enterprise; rather it is embedded in competing ideological discourses, often stemming from different theories of social change (Lynn, 2006; Philip et al. 2013). Ultimately, there are pedagogical dilemmas regarding the translation of this community framework to established teacher education curriculum and practices. These quandaries are also consequences of working against the grain, an alternative path working against an individualist logic, and instead utilizing collectivist logic to promote social justice in education (Cochran-Smith, 1991, 2001). In short, the proposal advocated here is to strategically access knowledge and expertise that exists in schools and communities to inform the preparation of teachers.

Two Case Studies of Teacher Education Programmes

Based on the educational perspective described above we will present two experiences in two different realities, one based in the United States and one in Brazil, of teacher education programmes closely connected with communities. We understand that disclosing, analyzing and criticizing counter-hegemonic experiences is essential to mapping the creation of alternatives in order to learn how to build fully-democratic educational alternatives (Apple, Au & Gandin, 2009). In moving towards a new hegemony based on non-hierarchical ways that schools, communities, and universities work together in teacher education, we present the following two case studies.

The Brazilian Case: Science Teacher Education Program at Federal University of Paraná Campus Seashore

In Brazil, there are fragmented initiatives working with experimental curricula in order to move from a university-based model of teacher education to a perspective that honors educating in partnership not only with public schools, but also with

communities where schools are located; thus developing teaching *praxis* committed to broader struggles for social transformation. One of these teacher education initiatives is promoted by a social movement, the Landless Workers Movement (Movimento dos Trabalhadores Rurais Sem Terra, or simply the MST) documented by Pereira-Diniz (2005). The MST's pedagogy is linked to collective work and the construction of humanist and socialist values. Another case is part of a pedagogical proposal by the Federal University of Paraná (FUPR) campus Seashore, for their Science Teacher Education Program (STEP). This case is presented and discussed below.

FUPR campus Seashore is a new institution, created in 2005. It was born from the commitment not only to increase enrollment, but also of an emancipatory educational proposal that combines scientific and technological development with social development, in a social and economically vulnerable area in the state of Paraná. This area consists of seven townships that form the coastal region of the Paraná-BR state. That is, in this case it is not only one critical course, but a whole pedagogical project of an institution comprising 15 undergraduate courses, four undergraduate teacher education programmes in Arts, Science, Language and Communication, and Rural Education, and eight graduate courses.

The curriculum of this campus is based on the interdisciplinary perspective of the construction of knowledge as well as in appreciation of the integral formation of students. Thus, the curriculum aims to build the teaching-learning process associated with the local reality. From the beginning of the programme, the student is situated in the environmental, cultural, political, economic, and social issues of the region, linking theory and professional practice in various educational actions throughout the course (Franco, 2014).

Foundational to the programme is reflection on concrete reality as the primary source of knowledge in dialogue with systematized knowledge. From this understanding of knowledge, the programme crafts the organization of curriculum and the development of student-designed projects using a Project-Based Learning approach that involves both teachers and community. The courses present a structure that is not rooted in traditional academic disciplines, rather they establish as curriculum three interdisciplinary components: Humanities Cultural Interactions; Theoretical and Practical Foundations; and, Learning Projects.

Pedagogical work, understood in its totality, is structured around three principles:

- (a) the university's commitment to the collective interests;
- (b) education as a totality; and,
- (c) a student education based on critique, research, pro-activity and ethics; capable of transforming reality.

In the Science Teacher Education Program, the curriculum is specifically constituted in order to address at least two historically problematic issues in Science teacher education: (1) the perception of teacher education - in order to overcome the low status of teacher education in many universities; and, (2) the fragmentation of knowledge, specifically the disconnection of systematized knowledge from society.

The challenge that arises for future teachers when taking on an emancipatory view of the world in this programme, is to contribute to the (re)construction of school culture to the extent that they can be subjects in mediating the transformation of social practice from the perspective of inclusion, equity, and social justice. That is to say, the challenge is for preservice teachers to accept and embrace their professional commitment to society (Silva, Brizolla, & Silva, 2013).

In order to achieve these goals, the Science Teacher Education Program is designed as a four year programme for future teachers studying Science and Pedagogy knowledge, connected with community and the social, economic, and cultural context where it is located. From the first semester of the course, future teachers are engaged in clinical experiences in close relationship with local community and public schools. Future teachers are simultaneously engaged in a research project grounded in a local phenomenon and developed in partnership, again with both community and public schools.

For example, Joana's¹⁴ learning project is related to both her experience as a fisherwoman and to scientific knowledge. She articulates her learning project from her clinical experience in school:

The practice outside the classroom is a huge learning experience. [...] My learning project is turning all of the fish waste that I work with in fertilizer, because it is thrown from the fish market into the sanitary landfill. I was a fisherwoman, before entering the university; I always had this idea of using this organic residue for something. And within the afforestation project (conducted in partnership with a school of clinical experience, as a pedagogical activity with school students) I used the fertilizer with the seedlings in school. [...] Because nothing was done until now with the fish's residue. It is a long-term study, and as I am inserted in the community, it is something that I always thought about doing.

It is important to highlight that for pedagogical objectives to be achieved there is also a collective structure. A cohort of teacher educators and students discuss pedagogical and administrative matters of the course, curriculum, and institutional framework in a space entitled "Interdisciplinary Technical Chamber". This is a space for reflection, making collective decisions about the programme and curriculum, and sharing and discussing the practice of teacher educators. The Chamber congregates every two weeks with the participation of teachers of specific areas of the programme. Here, teachers of related or cross-cutting areas meet together in order to break with traditional departmental meetings organized in a disciplinary way.

The curriculum and *praxis* of STEP enhances the university's relationship with schools and communities when compared with the traditional university model of teacher education. However, it is necessary to critically reflect in order to advance further. And in this sense, we point out the need for deepening and institutionalizing the relationship between schools and, in particular, communities. It is necessary to ensure institutionalized relations and to avoid relations based on the goodwill of individuals; the relationship with communities is the weakest element of the current structure.

¹⁴Fragment of an interview with Adriana, second year student of STEP.

The institutionalized relationship between community – school – university, which becomes rooted in the institutional culture and also in institutional organizational and legal structures, not only ensures stability for these relationships, but rights to all those involved (teachers, activists, community agents, school students, future teachers). Moving towards institutionalization presents a challenge to the debate surrounding the relationship between educational and social transformation. Concrete conditions are provided as a given requirement in dialectic partnership between various institutions. Thus, teacher education, as discussed in this Brazilian experience, presents some important elements to consider in thinking about how a hegemonic teacher education programme might structure curricula and pedagogy to engage future teachers in social justice. Non-hierarchical structures, cross-curricular coursework, programme-wide guiding principles, and action research based in community projects and in solidarity with community, are only some of the elements offered here by educators in our collective, ongoing struggle towards social equality.

The U.S. Case: Secondary Teacher Education at University of Washington, Seattle

In the U.S., hybrid models also vary across the country. Much of the history of university-based teacher education programmes moving towards partnership with the schools, families, and communities they serve has been discussed earlier in this chapter. And given earlier definitions of social justice connecting teacher education to broader struggles towards justice and the current neoliberal context, the U.S. finds itself in a quandary. If social justice is to join in solidarity with the people, the question becomes: what is the will of the people? Specifically, what is the movement of those most marginalized in an urban city like Seattle?

Connecting to our local communities requires contextual knowledge of where we teach; this includes knowledge of many cultures, histories, and the global connectedness of people living in urban areas. A place-based solidarity in an urban city like Seattle requires unpacking what we mean by ‘urban’, and the many communities that make up this very diverse, heterogeneous city (Matsko & Hammerness, 2013).

In Seattle, both global and local historical inequities collide. Waves of immigration from Chinese laborers, to Mexican agricultural workers, to African American migrations from the South, to the current growing East African and Muslim communities, combined with a history of covenant housing, segregation, and gentrification, have created quite a complex diaspora in communities. Our public schools reflect a growing ‘minority’ population, many of whom are immigrants and refugees from countries in which the U.S. has had a hand in destabilizing. As public schools are extensions of the state, it is necessary to recognize here the U.S. identity as both oppressed and oppressors; and this must be reflected in our curriculum (Apple, 2010).

The elementary and secondary teacher education programmes are roughly one-year, or 14 month, graduate-level master degree programmes. Though these programmes are only one year, they include roughly 16 different courses, of which increasing fieldwork or student teaching is counted among them. Preservice teachers in the secondary programme are required to have majored in their content area as an undergraduate, or to have fulfilled substantial coursework in the discipline they intend to teach at the middle or high school level. The first quarter for both programmes is predominantly spent in courses at the university, with one day a week devoted to time in placement in schools. The ratio of coursework to fieldwork gradually reverses as the year progresses, leading to a decrease in coursework and a majority of time in schools during their final quarter. Notably, the first quarter in the elementary programme also includes collaboration at a local elementary school.

During the 2013–2014 academic year the programme implemented a strand called the Community, Family, and Politics (CFP) Strand. The strand was intended to run throughout the programme and include the voices of families and communities of color, to contextualize the curriculum and in the Seattle region. The CFP strand was not uniformly adopted across all courses and some courses and/or quarters still operated independently of the others. Division meetings happened once a quarter, or once every three months.

The guiding questions of the strand were informed by Murrell's (2001) definition of the *community teacher*:

1. What is a community teacher and why would I want to be one?
2. How can I develop a clear sense of my own cultural, political, and racial identities in relation to the children and families I hope to serve?
3. How do I build alliances and take part in work to help me understand, engage, and respond to students and their communities?
4. How can I sustain myself, and the practices that are part of being a community teacher, during this programme and in my own practice?

Through discussions with community mentors, three main themes emerged in co-constructed curriculum: a focus on what is now called the Black Lives Matter movement; concerns about the Education Reform movement; including the overemphasis on high-stakes testing; and, a number of ongoing specific ways teachers worked alongside families. The strand developed as the year progressed, based upon conversations and many open/honest discussions about what community mentors felt was needed in classrooms, and more broadly in the educational discourse/policy issues across the country. They most wanted to engage teachers in the topics that ranged from the school to prison pipeline, to charter schools, to high-stakes testing, and more.

The research team consisted of hybrid teacher educators, community mentors representing schools, families, and a number of community-based organizations. Two community activists working in education at various levels around the city approached university-based teacher educators and the team moved forward in co-planning and sometimes co-instructing events, discussions, and town hall-type meetings for teacher candidates and community mentors. As local leaders in their

respective communities, they came to identify individual community mentors from their many networks around the region. Selection was purposeful, as is shown in data collection, for particular traits. They often spoke of those who ‘get it’. Some of the logistical changes resulting from these conversations included panels, visits to community organizations, and links between some courses in the programme.

One area of focus for the research team involved studying teacher candidate learning throughout the programme. That is, in addition to a more democratic, less hierarchical teacher education programme, the team was interested in how teachers were taking up the work. Among other components in the strand, teacher candidates were asked to complete capstone projects explicitly connected to the CFP strand, were required to attend events and discussions co-planned and co-facilitated by community mentors, and completed items from a community teaching menu of actions grounded in the local.

Though not all candidates took up the work, those that self-identified as community teachers showed not only strengthened connections to family, communities, and teaching for social justice, but changes in practice as well. Teaching is a complex endeavor and many took up the challenge to begin with community in their teaching. For example, some chose to implement units on the protests in Ferguson, where a police officer shot an unarmed Black man, and the growing school to prison pipeline problem. For others, making phone calls home and rethinking family engagement in the high school setting resulted in home visits and/or family engagement plans. For many of our high school math and science teachers, beginning with the families and communities we serve when crafting lessons was a challenge. Some were convinced that social justice could only work in an ELA or social studies course, and many struggled when thinking about how to mediate between their methods courses.

Here Sarah, a science teacher candidate is reflecting on her experiences working at a school for students newly immigrated to the country. Luis, one of our community mentors and a second-generation immigrant himself, begins to dialogue with Sarah some possible solutions to her teaching dilemma:

Sarah (Teacher Candidate): My students are all ELL (English Language Learners) and it's been interesting ... They can graduate from this school. A lot of them would like to try to transfer to their neighborhood schools. Jefferson is a big one, Adams is a big one. A lot of them end up coming back because they transfer to their school and then their language level is a different issue, like if they just academically can't handle the workload.

A lot of them just say the kids are mean to them because they have accents and it's not a ... At the New School, it's everyone is ELL, so obviously, it's a language-supported community and so just like hearing their stories of, "People just make fun of me when I try to learn a new word or sound it out or something," that sort of experience. I don't know how as a Mountain City-wide community to change that or help that?

Luis (Community Mentor): I'll jump in to that. What I've noticed is that the way I work with students is I'm really up front and really real with them. I've had an instance, actually a couple days ago, where one student was trying to say a couple words in English, a new word, and somebody laughed at him. He was like, "Why are they laughing?"

... There's a couple things that play out. One, bullying ... People tend to forget about bullying as far as language and how that, in itself, really does affect ELL students; but it's going to happen too. That's one thing that I tell my students that, 'This is going to happen. Some words you're not going to say perfect but that's fine because that's just that accent.'

... It's just be real with them and enlighten them of, this may be an obstacle in your life and that's what it is, but it's fine; you can work on this. Just making them feel comfortable, 'You're not the only one too. Everyone else in that ELL room and the other room, they all go through the same thing.' They might be different; sometimes there's a student that's from Japan and he's the only Japanese students in that one class and he feels so isolated but you have other students who don't.

Results of the programme reveal a complex set of implications for both the democratization of teacher education and the goals/purposes of teacher education in its responsibility and accountability to the families, communities, and students it serves. To prepare them for discussions about the Black Lives Matter movement, inherent tensions to include the many voices, peoples, and groups in Seattle, or the pushback across the country for All Lives Matter necessitated room for further investigations. Similarly, to prepare candidates for family engagement, we needed to include more spaces and opportunities in our programme. This led us to question our very conceptualization of family engagement especially at the secondary level. Indeed, the changing relationships between adolescents and their families forced even more questions about the nature of the relationship between teachers and families at the secondary level.

What We Can Learn from These Experiences? Communities as Critical Partners in Teacher Education

The two cases presented in this paper attempt to put together three different actors in a non-hierarchical way: university-based; the complexity of schools where future teachers will work; and, the community where the processes of teaching and learning take place. Future research is needed to develop the type of complex frameworks for social justice advocated by Cochran-Smith and Villegas (2015). There is a need to bring together the many types of hybrid teacher education programmes and their community-based work to create a more cohesive context-based framework and structure for teacher education. The comprehensive Brazilian programme is an example of one such programme moving towards systemic and structural change.

Working in less-hierarchical, democratic, third spaces also implies rethinking epistemologies and pedagogies. Solidarity with multiple communities means exploring multiple definitions of pedagogy and questioning our own definitions of knowledge. For example, indigenous pedagogies found in some of the work in rural, indigenous communities provide some ways to rethink the pedagogy and curriculum in programmes of teacher education. Moves towards culturally relevant pedagogies are also examples of epistemological shifts towards a critical curriculum theory (Au, 2012).

Future research from curricular standpoint theory might engage more fruitfully in STEM fields concerned with the intersections of science and social justice. Similarly there is much needed work around gender equality and its many complexities given particular religious, cultural, and historical intersections in many

countries across the globe. English language imperialism is another area of concern for many communities, of which teacher education engaged in social transformation must also take up in its work. Such rethinking of pedagogy, curriculum, structures, and purpose in social transformation will help guard against the tendency to expand working models without attention to particular contexts and histories.

Acknowledgments We thank people who are involved in making these experiences of empowering community and future teachers to turn into reality, especially, those who contribute to our research. This research was partially supported by Foundation to Support Research of the State of São Paulo, Brazil (FAPESP), and the Spencer Foundation.

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Part IV

Students of Teaching

Part IV of the Handbook opens with a consideration of students of teaching – as preservice teachers, as novice teachers, and as experienced teachers. Chapters in this section of the Handbook probe ways to consider understandings of students of teaching. Within this section, chapters explore the progression from choosing teaching as a profession to ways of teaching a student of teaching to the always-evolving process of becoming a teacher and critical aspects of teaching that must be recognized. Authors in this section grapple with issues related to being and becoming students of teaching, including ways in which that process might be defined, how teachers initiate their professional practice, ways we might support them, and what they might bring with them into the profession as globally and socially attentive participants. These chapters are provocative in the ways they encourage readers to interrogate their own ideas about the learning to teach process.

Chapter 22

Factors Influencing Teaching Choice: Why Do Future Teachers Choose the Career?

Paul W. Richardson and Helen M.G. Watt

Introduction

Teachers constitute a large, heterogeneous workforce which has been the subject of policy measures designed to raise the quality of the pool of those seeking to enter, and remain, in the profession. The essence of these recruitment and retention interventions has been the desire to attract academically able and committed people who will be inspirational, effective teachers of children and adolescents (Schleicher, 2011). Across several decades, educators and public policy-makers have been faced with the recurring issue of how to attract and retain the highest quality teachers as a vital resource in the advancement of student learning and achievement (Greenwald, Hedges, & Laine, 1996). Yet, identification of this need has not meant the problem has been easily addressed. Findings identified by American researchers in the 1980s indicated: academically strong high school graduates tend not to choose teaching (Chapman & Holzermer, 1983; Vance & Schlecty, 1982); academically able students who do enter, are more likely to leave for another career (Schlecty & Vance, 1981); a quarter of teacher education graduates never enter the profession or leave within the first 5 years (Chapman & Hutcheson, 1982; Charters, 1970; Mark & Anderson, 1978); and, those graduates who do not enter the profession are more likely to hold personal values considered particularly important for teachers (Chapman & Hutcheson). Thirty years on, these concerns persist in the 'public mind', plague the reputation of teacher education through the mass media, and influence the views of policy-makers.

Paul W. Richardson and Helen M. G. Watt contributed equally to the authoring of this manuscript, supported by an Australian Research Council Grant, DP140100402.

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Policy-makers and media attention are presently focused on increasing teacher quality through selection into teaching to ensure entrants have higher academic and cognitive abilities, and intensifying accountability measures (Leithwood, 2007) in efforts to ensure quality and to raise the professional status of teaching. Not included in this discourse, yet highly germane, is the burgeoning body of research over the last decade focussed on future teachers' career motivations and perceptions – why people choose teaching as a career, what they hope to achieve, and how the career is characterised and understood. This literature has begun to establish the centrality of motivations and beliefs to professional engagement and commitment among beginning teachers. In this chapter we first examine key background issues which inform current debates concerning teacher quality and its influence on student outcomes. Second, we review the attractiveness of teaching as a career. Next, we examine the feminization of the profession. We then outline existing explanations for why people choose to become a teacher as context for the impetus for a programme of research examining teacher motivation. In the next section, we summarise recent work within the Factors Influencing Teaching (FIT-Choice) framework, and review this growing programme of international research, which is followed up with an examination of the different types of beginning teachers we have identified. We go on to explore different perspectives on what teachers want and what they need to be effective from the perspectives of achievement goal theory and self-determination theory. We end by identifying methodological challenges, and future directions for the field.

Background: The Demand for Teachers

Among researchers and policy-makers, interest in why people choose to enter the teaching profession has fluctuated in response to the population birth-rate as the number of school-aged children has grown or declined. From an historical perspective, the cycle of population growth and decline in many ways reflects the cycle of interest in understanding who is attracted into teaching as a career and why. The demand for teachers is influenced by a number of factors such as the age structure of the school-aged population, mandatory enrolment age, the age at which compulsory schooling ends, agreed class sizes, the number of hours that teachers teach, and instructional time provided for students (OCED, 2014b). From the 1950s onwards, the 'baby boom' following the Second World War resulted in a crisis of supply of teachers needed to work in primary (elementary) and secondary education and in specialist areas. By the 1980s the population of school-aged children in many advanced countries had stabilised and was no longer rising, resulting in a decline in the demand for teachers.

There is significant country variation in relation to planning for the number and types of teachers necessary to meet demand. Among the various OECD countries, the school-aged population is declining or remaining stable; in other countries the population is growing, requiring the recruitment of teachers at all levels of schooling (OECD, 2014a). In countries like Turkey and Indonesia, where more than a quarter of the population is below 14 years of age, there is increased demand for teachers. As with many other countries, Turkey has problems in meeting the demand for

teachers in particular areas, especially in preschool teaching, special education and English language (Eren & Tezel, 2010). Shortages of teachers in specialist areas such as physics, mathematics, and languages persist in many OECD countries (Zumwalt & Craig, 2008). In Australia, 18 % of the population is aged under 14 years, with high levels of growth among school-aged children, there is an aging teacher workforce, and increasing part-time work among teachers will escalate the demand for teachers over the next decade (Wheldon, 2015). In the American context, Ingersoll (2001) has acknowledged while there are effects from growth in the school-aged population, the supply of teachers, and an aging workforce, much of what is identified as teacher shortages result from the ‘revolving door’ of teachers migrating from one school to another, an effect intensified for schools in poorer neighbourhoods or rural areas likely to experience greater turnover than upper middle-class suburban school communities (Ingersoll, 1995).

For governments, teachers represent a considerable financial commitment that must be made available from the public purse; it is not difficult to see why governments have become increasingly intent upon securing a highly motivated, committed and effective teacher workforce to ensure the best possible student outcomes, and the development of a skilled future workforce with which to sustain an internationally competitive economy. An observation made by Boyd, Lankford, Loeb, Ronfeldt, and Wychoff (2011, p. 378) concerning the American context succinctly captures why schooling and education are the focus of so much government attention in many countries: “Public schools are the most extensive public intervention in the lives of children and youth, and teachers and peers are the most immediate factors influencing school experiences for students”. High quality, committed and effective teachers are positioned as fundamental to achieving high quality student outcomes from quality schooling (OECD, 2005), a theme echoed in the policy documents of widely different countries. Teacher ability, teacher education, and teacher experience have been shown to relate strongly to student achievement (Greenwald et al., 1996), with an enduring influence on educational attainment, employment, earnings, and social behaviour (Chetty et al., 2011). Teachers’ academic ability or various processes of licensure are positively correlated with their classroom effectiveness as measured by student achievement (Greenwald et al., 1996; Raudenbush, Fotiu, & Cheong, 1999). In some countries, unacceptable student outcomes in international comparative assessments have been attributed to those countries not attracting the right people into teaching (McKenzie & Santiago, 2005). It is little wonder then, that over the last decade or so, there has been intensified research into who chooses to enter into teaching as a career, what attracts them to make this decision, and, what helps to retain effective professionals in the profession.

The Attractiveness of Teaching as a Career

In many countries, teaching is not regarded as a highly attractive career, especially for those people who seek a high salary and social prestige as career rewards. There is a prevailing discourse that circulates in the mass media and is fostered among the ‘general public’ which promulgates the notion of teaching as an easy career. The

argument runs along these lines – teaching offers a shorter working day, accommodates family responsibilities and childcare, and requires little more in skills than a desire to work with children. Among some sociologists teaching has been characterised as an easy-in/easy-out occupation with a comparatively low entry-bar and wide entry-gate (Etzioni, 1969). Views such as these have blighted the reputation and status of teaching to the point where it is not uncommon to hear that teaching is chosen by those seeking an easy job, or who were unable to enter a better career (Schaarschmidt, 2005).

Teacher education is relatively accessible in many countries and frequently affords a wide ‘decision range’, permitting individuals to decide to become a teacher at different points across their life-span. Teacher education programmes are frequently made accessible through part-time and flexible modes of course delivery to those who may already be teaching without having completed a teaching qualification. For instance, private schools sometimes employ people who have qualified in a particular subject area of need, such as physics, and have them teaching while undertaking a part-time teacher education programme. Once qualified, teachers can decide whether or not to pursue further professional learning and development (see Lortie, 1975).

Countries such as Finland, Taiwan, and Norway, where the social status and salary of teaching *are* competitive with other professionals requiring a university-level education, are exceptions. As a case in point, teachers in Finland are held in very high regard and entry into teacher education is extremely competitive (Uusiautti & Määttä, 2013). In countries such as Singapore, Hong Kong, South Korea, Japan, Taiwan and Indonesia, teachers enjoy relatively high occupational prestige and community respect (Ingersoll, 2007). Compared with occupations that require similar qualifications, teachers in Taiwan receive an attractive level of salary, bonuses, insurance and pensions. As a result, talented, academically able young people compete for entry into teacher education and persist in the career (Fwu & Wang, 2002). This is not necessarily the case in countries including the United States, Australia, and the United Kingdom, despite new evaluation and accountability measures designed to improve the quality of entrants into the profession. Insights into how the work of teachers is perceived by university graduates can be discerned from the results of a national sample of 802 young college graduates in the United States who were not teachers, and believed teachers often had to worry about their personal safety (89 %), were underpaid for their work (78 %), lacked career advancement opportunities (69 %), and were made scapegoats for many of the difficulties facing education (76 %) (Farkas, Johnson, & Folen, 2000).

Perceptions such as these do little to assist the status of teaching, or attract people to the career. Yet, talented people, who could well have chosen another career with higher prestige and salary, continue to be attracted to teaching for other kinds of rewards that come from working intensively with youth to make a difference in their lives, and contributing to the social good by ensuring students receive the best educational opportunities. From long-term demographic data of the Schools and Staffing Survey in the United States, Ingersoll and Merrill (2010) concluded that the academic ability of teachers remains lower than that of other professionals in that context. Studies predominantly from the United States and United Kingdom have

proposed that teacher education candidates possess less favourable cognitive and personality characteristics than students enrolled in other subject domains at university, the so-called ‘negative selection’ effect (Denzler & Wolter, 2009; Guarino, Santibañez, & Daley, 2006; Hanushek & Pace, 1995). While these claims have fitted neatly with public opinion and political rhetoric, they are contrary to the findings of studies conducted in the United States over the last part of the Twentieth Century. For example, Lankford, Loeb, McEachin, and Miller (2014) reported recently from an analysis of data from New York State public schools that there is robust evidence the academic ability of teachers working in those schools has, “improved and in many cases improved dramatically” (p. 451), and that the occupational esteem of teachers is on the rise.

There is evidence emerging from other country contexts to show that those who enrol in teacher education do not show lower cognitive abilities and less favourable personality prerequisites when compared with students enrolled in other domains (Hench, Klusmann, Lüdtke, & Trautwein, 2015). In that large-scale German study ($N=1,463$) what did distinguish future teachers from other university students was their higher social interest in their vocational orientation. Their study included students enrolled in STEM studies (e.g., mathematics, biology, computer sciences; $N=842$), 10 % of whom were enrolled in teacher education; and non-STEM study majors (e.g., English, German language and literature, arts, sports, history; $N=621$), 28 % of whom were enrolled in teacher education. Another study conducted in Germany, including educational psychology, economics, mathematics, natural sciences, engineering, and a variety of teacher education programmes, similarly found no difference between the preservice teachers and other students with regard to intelligence, achievement motivation, or reading skills (Spinath, van Ophuysen, & Heise, 2005).

A teaching career is unlike smaller, more exclusive professional occupations where entry into the profession is highly internally regulated and membership connotes high social status, salary and prestige (Vaizey, 1969). Occupational gatekeepers exercise control over membership of the licensed professions such as law, medicine, and engineering (Ingersoll & Mitchell, 2011) to ensure that not all who seek to enter are able to do so. These practices have not operated in regard to the teaching profession, although, increasingly in many countries, registration and regulatory authorities have been instituted which require teachers to undertake competency tests prior to professional entry and to engage in further education during the course of their career. These processes and requirements vary depending on country, state and province. The sheer size of the teaching workforce precludes it being perceived as small and exclusive. Unlike the exclusive professions teachers are not self-regulating, and so like nurses and social workers, are regarded as ‘semi-professionals’ and accorded lower social status, esteem, and autonomy. Yet, sociologists of organisations and occupations have identified teaching as an occupation that requires flexibility, tolerance of ambiguity, and calls on initiative, judgement and social acuity as much as other traditional and highly esteemed professions (Bidwell, 1965; Ingersoll, 2008; Kohn & Schooler, 1983). Perhaps if the complexity of teaching were more widely recognised, changes in perceived status and commensurate salaries might be required.

In an effort to draw together policy recommendations from diverse studies, the Directorate for Education, Education and Training Policy Division of the OECD (2005) released a summary paper, *Making teaching an attractive career choice: Pointers for policy development*, in which seven levers were listed that policy-makers might adjust: (i) improve the image and status of teaching; (ii) improve teaching's salary competitiveness and employment conditions; (iii) expand the supply pool of potential teachers; (iv) make reward mechanisms more flexible; (v) improve entrance conditions for new teachers; (vi) rethink trade-off ratio and average teacher salary; and, (vii) capitalise on an oversupply of teachers. To make all of these policy adjustments, or even some of them, would no doubt have an effect on the attractiveness of teaching, but may persuade people into the career whose commitment and effectiveness is not optimal. Simply raising salary, for example, may have the effect of also attracting people who are interested more in the financial reward and less enthusiastic about working with youth. That said, raising the salary offered to certified teachers to a level comparable to other professions requiring similar qualifications, would likely shift perceptions about the status and value of teaching as a career. To accommodate such a measure would require a recalibration of budget priorities, especially because of the size of the workforce that is mostly publicly funded.

In relation to status, it is important to recognise that negative stereotyping of teaching and teachers, does have detrimental effects on preservice teachers, even for the most positively, intrinsically motivated people (Ihme & Möller, 2015), and even influences how teachers explicitly judge themselves to be less cognitively competent than lawyers (Carlsson & Björklund, 2010). A critical dimension not represented in these OECD recommendations is understanding what motivates people to choose teaching as a career in the first place, their goals and aspirations, and how these initial career motivations are able to be realised, fostered or quashed in different school contexts, and across a teacher's life span.

A Feminized Profession

Across the globe, teaching is a female-dominated profession (>70 %) although there is variation in the percentage of women who constitute the teaching workforce in different countries and at different levels of schooling. Early childhood teaching is the most feminised, then elementary, followed by secondary schools where women still make up the higher proportion of teachers. There is significant variation across subject disciplines – men are more highly concentrated in science, mathematics and technology (STEM disciplines). On average across the OECD countries (OECD, 2014a), two-thirds of teachers are women. At the pre-primary level women account for 97 % of teachers, at the elementary level 82 %, and at the lower secondary level 67 %. These averages tend to mask substantial variability; in Japan fewer than half of the teachers are women, whereas in Estonia, Iceland and the Russian Federation women account for 80 %. At the upper secondary level the OECD

average is 57 % women, but again percentages vary across countries from 28 % in Japan to 73 % in Canada. In the United States 75 % of teachers are women, and 84 % are White, the majority of whom are monolingual (Zumwalt & Craig, 2008). Teaching is characterised by a gender imbalance that has increased over the last 30 years.

The proportion of women teachers in secondary schools has also increased since the 1970s, but that situation is more complex when subject specialisms are taken into account. A recent review of the teaching workforce in Australia provides a case in point. Chemistry, mathematics, computing and information technology all have a higher proportion of male teachers; almost half the men teaching mathematics are aged over 50 years, and three-quarters of physics teachers are men of whom over 40 % are aged over 50. The same is not true of English and languages, where men represent just one-third and one-quarter of the workforce respectively (Wheldon, 2015). Even in Finland, where teaching is a highly sought after profession and the number of applicants for a place in the eight teacher education programmes across the country is many times higher than the numbers of available places (Uusiautti & Määttä, 2013), women represent the largest proportion. In this regard the profile of teachers in Finland is very similar to the OECD average – 90 % of pre-primary teachers are female, although the distribution of women in upper-secondary schools is more balanced.

A century ago, this was not the case. The proportion of women entering the profession has increased over the last 40 years. Governments and particularly some politicians around the world have been voluble in expressing concern about this gender imbalance. Disengagement and underachievement of boys in schools has been attributed to too few men in the teaching profession, chiefly in elementary school. It has been argued that male teachers provide important role models for boys, although these assertions have not been supported by research. Empirical studies have shown that teacher gender does not relate to the academic achievement of boys in elementary, junior secondary or middle high school (Carrington & McPhee, 2008; Carrington & Skelton, 2003; Martin & Marsh, 2005). In a large-scale study in which students were asked their preferences, boys showed no gender preference but wanted teachers who could establish a good working relationship, were enthusiastic about teaching, enjoyed working with young people, allowed for choices, sought student input into lessons, made schoolwork interesting and relevant, provided variety in content and methods, and respected students' opinions and perspectives (Martin, 2003). Despite these findings, populist calls for more men to be recruited into teaching continue to surface accompanied by promises of renewed efforts to make the career attractive to suitably qualified males, especially drawn from other careers. There has been little effort to shift the perceptions of men towards teaching as a career option, or to improve the working conditions for teachers to make the career more attractive for females and males.

The question of why men may not be attracted into teaching seems more complex than the traditional arguments that prevail with regard to the status and salary of teaching. Few studies exist that examine upper secondary school students' career decisions, especially in relation to their perceptions of teaching as a career. Students

are not always aware of what different careers involve; yet, because children and adolescents compulsorily attend school and are exposed to a variety of teachers over many years, they gain first-hand knowledge of what teaching entails and most likely develop perceptions about teaching as a career (Johnston, McKeown, & McEwen, 1999). If we are to better understand how these perceptions and views develop we need to undertake studies with young people who have not already selected into teacher education. Many studies of variable quality have been undertaken with preservice teachers; far fewer studies have been conducted with young people before they have foreclosed on the career options available to them.

There have been some revealing studies from different cultural and social contexts that have investigated views of teaching as a potential career among upper secondary school students. For instance, a study conducted in Scotland asked 1,100 secondary school students to rate 15 careers on 6 criteria. Boys and girls differed in their interests but agreed very closely on the usefulness and prestige of each career. In order of preference girls ranked teaching first, while boys placed teaching fifth and engineering first (Butcher & Pont, 1968). Similarly, 1,249 final-year upper secondary school students from 20 senior high schools in Hong Kong were given a list of 20 occupations and asked to rank them in relation to their career of choice. Teaching was ranked third as the most wanted and respected career – well above other professions such as engineer, accountant, research scientist, information technology personnel, lawyer, and architect. Again, more girls expressed an interest in becoming a teacher (55 %) than boys (Lai, Chan, Ko, & So, 2005). Across different cultural contexts it seems that women are more attracted to teaching. When and how this attraction is formed is yet to be empirically investigated.

Impetus and Development of a Programme of Research

In an extensive review of the literature on teacher recruitment and retention in the United States, in 2006, it was observed that there were very few studies that provided, “evidence of psychological factors motivating individuals to enter teaching” (Guarino et al., 2006, p. 179). An early study in France examining unconscious motivations proposed that recruitment and the education of teachers might be significantly improved if motivations underpinning vocational choice of teaching as a career were taken into account (Corruble, 1971). Corruble proposed that people may choose teaching as a way of meeting their own psychological needs for safety, security, and a liking for exercising authority. Success and satisfaction in the career may be less a matter of extrinsic factors and more a function of satisfaction of their own psychological needs, with potentially less than satisfactory outcomes for children and adolescents being taught by teachers who enter from same motives. More recently, in a related exploration that drew on adult attachment theory, Riley (2011) examined interactions among personality, experience, expectancies, values and career choice, to propose that teachers may be driven by unconscious need for a corrective emotional experience. Empirical work in relation to unconscious

motivations for career choice is yet to be undertaken, with considerable challenges involved in measuring unconscious motivations.

Since then, educational psychologists have turned their attention to teachers' motivations, working to reformulate robust motivational theories which were initially developed to explain students' motivations. We have elsewhere described this as a 'Zeitgeist' of interest in theoretical developments concerning conscious motivations for teaching as a career choice (Watt & Richardson, 2008). Three prominent motivational theories concerning students that have so far been reformulated and adapted to explore dimensions of teacher motivation, are achievement goal theory (AGT; Butler, 2007), self-determination theory (SDT; Roth, Assor, Kanat-Maymon, & Kaplan, 2007) and expectancy-value theory (EVT; Richardson & Watt, 2006; Watt & Richardson, 2007a, 2008).

Our interest in teacher motivation developed initially from conversations with people who had chosen to undertake a teacher education programme even though they were already employed in another field of work. These were people who were switching from another career into teaching. We began developing our work on teacher motivation in 2001, prompted by two questions that had been forming over the course of a decade: why do people from demanding, high status, and financially rewarding careers want to switch into teaching? and, what motivates people to choose teaching at all? A review of the existing teacher education literature from the 1960s highlighted intrinsic, altruistic, and extrinsic motivations as the most important groups of reasons influencing teaching career choice (Brookhart & Freeman, 1992). Over three decades from the 1960s several themes were identified as the reasons why people chose teaching: the desire for social mobility, the influence of parents and extended family, time compatibility, the need for a stimulating absorbing career, an ability to influence others, the desire to work with young children and adolescents, to work in a people-oriented profession, and job-related benefits such as security, pensions and vacations. Historically, teaching has opened a pathway into higher education for people with modest economic resources from lower to middle socioeconomic status backgrounds, which predominate in the teaching profession (United States: Brookhart & Freeman, 1992; Pigge & Marso, 1992; United Kingdom: Denzler & Wolter, 2009; United States, Guarino et al., 2006; Australia: Richardson & Watt, 2006; Turkey: Kiliç, Watt, & Richardson, 2012; Indonesia: Suryani, 2014).

Independently conducted studies in France, Australia, Belgium (French Community), Canada (Québec), the Netherlands, the Slovak Republic, and the United Kingdom, revealed that the most frequently nominated motivations for teaching as a career choice were the desire to work with youth, the potential for intellectual fulfilment, and the desire to make a social contribution (OECD, 2005). On the other hand, "extrinsic motives" such as salary, job security, and career status, have been identified as the motivational drivers of teaching as a career choice in studies conducted in very different sociocultural contexts such as Brunei (Yong, 1995), Zimbabwe (Chivore, 1988), Cameroon (Abangma, 1981), the Caribbean (Brown, 1992) and Jamaica (Bastick, 1999).

We were surprised to find that although many studies had been conducted on reasons for choosing teaching as a career, researchers had variously conceptualized motivations, drawn on different questionnaires and scales, and collected data from opportune samples, resulting in a profusion of studies characterised by definitional imprecision. Overlapping categorisations of motivations, unclear or absent theoretical and analytical frameworks, lack of reporting of reliability or construct validity, and an over-reliance on raw frequencies, make it difficult to compare findings from studies conducted in different contexts. There was clearly a need to develop a theoretically comprehensive and psychometrically robust multidimensional scale grounded in motivational theory, and to investigate beginning teacher motivations among large samples. Taking up a challenge posed by Huberman (1989), we thought it also necessary to begin a longitudinal study to examine changes in, and consequences of, particular motivational profiles as we tracked those beginning teachers into the profession, to predict who is likely to continue in teaching, who is likely to leave, and why.

When we began our programme of research we were puzzled as to why the teacher education literature had not taken account of the literature on occupational choice. Teaching is an occupation and a good deal is known about occupational choice-making. More importantly, why had existing motivational theories been overlooked in studies of teaching motivations? It appeared that these two literatures had developed in parallel rather than in dialogue with one another. It seemed to us that a marriage between these literatures might provide the field of teacher motivation research with comprehensive and coherent motivational theories to guide systematic investigations into why people choose teaching as a career. We turned to the Eccles et al. expectancy-value achievement motivation theory (1983; Eccles, 2005, 2009; Wigfield & Eccles, 2000), which was initially developed to explain gendered high school mathematics enrolments. In EVT, individuals' choices and behaviours are shaped by their ability beliefs, expectancies of success, and different kinds of task values: intrinsic values (how much one enjoys the task), utility value (whether it is perceived to be useful), attainment value (whether it will be important in achieving an individual's goals), and, the costs involved such as opportunity costs (what an individual will have to forego), financial costs, psychological costs (anxiety and stress), time costs, or effort costs (see Perez, Cromley, & Kaplan, 2014).

The utility and validity of EVT for explaining students' achievement-related choices has been founded upon a wealth of empirical work, and it has been productively applied in the context of several school disciplines (e.g., English and Language Arts: Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Watt, 2004; and sport: Fredricks & Eccles, 2002), as well as predicting mathematics-related career plans (e.g., Watt, 2002, 2006; Watt et al., 2012), and has proven to be valuable for investigations into teaching as a career choice (see (Richardson & Watt, 2006, 2010; Watt & Richardson, 2007a, 2008).

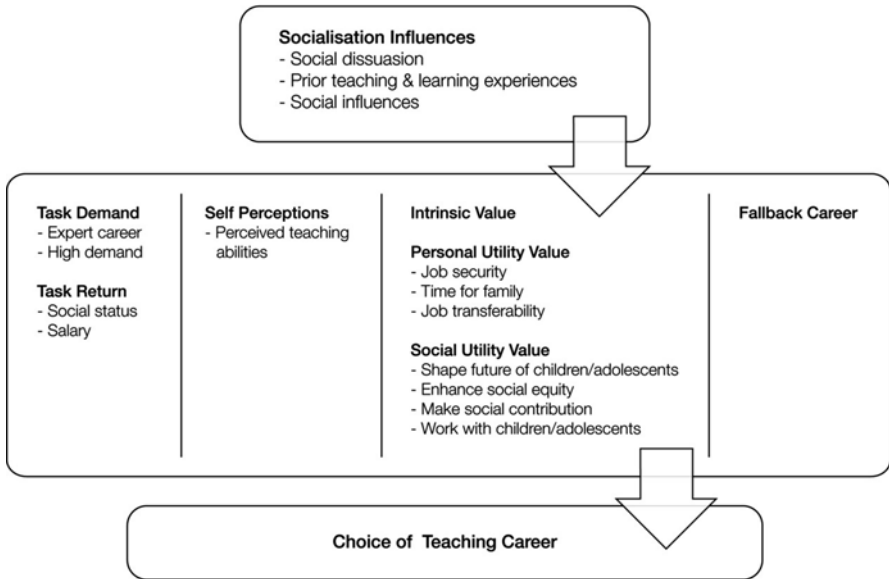


Fig. 22.1 FIT-Choice model (Watt & Richardson, 2007a)

Factors Influencing Teaching Choice: A Programme of Research

The multidimensional, theoretically comprehensive Factors Influencing Teaching Choice framework (FIT-Choice) taps both the “altruistic”-type motivations which we refer to as “social utility value” motivations, that have been emphasised in the teacher education literature (e.g., Book & Freeman, 1986; Brown, 1992; Lortie, 1975; Moran, Kilpatrick, Abbott, Dallatt, & McClune, 2001; Serow & Forrest, 1994), as well as more personally utilitarian motivations and intrinsic motivations, and ability-related beliefs that have been emphasised in the career choice literature (Lent, Lopez, & Bieschke, 1993) (Fig. 22.1).

The FIT-Choice scale is psychometrically robust and yields reliable findings across settings (Watt & Richardson, 2007a, 2012; Watt et al., 2012); it provides a measurement platform to elicit which motivations and task beliefs are important for choosing teaching as a career. The scale consists of 57 items, comprised of 3 major components. First, 12 motivation factors, some of which can be grouped into higher-order factors: *perceived teaching abilities*, *intrinsic career value*, personal utility value (*job security*, *time for family*, *job transferability*), social utility value (*shape the future of children/adolescents*, *enhance social equity*, *make social contribution*, *work with children/adolescents*), *prior teaching and learning experiences*, *social influences*, and *fallback career*. The second set of measures consists of five dimensions which tap perceptions about the profession, in terms of task demands and task returns: *expert career*, *difficulty*, *social status*, *salary*, and *social dissuasion*. The last component asks about *career choice satisfaction*. Multiple items measure each

factor with response options ranging from 1 (“not at all important”) to 7 (“extremely important”). As a preface to all motivation items in the scale, “I chose to become a teacher because ...” was typed in boldfaced font at the top of each page and as an open response at the beginning of the survey (see Richardson & Watt, 2006). We have elsewhere outlined how the FIT-Choice factors map to Expectancy-Value theory, Social Cognitive Career Theory (Lent et al., 1993) and key findings within the teacher education literature (Watt & Richardson, 2007a).

Across our initial Australian sample of 1,651 early childhood, elementary and secondary future teachers, the highest-rated motivations for teaching were perceived teaching abilities and the intrinsic value of teaching, followed by the desire to make a social contribution, shape the future, and work with children/adolescents (i.e., social utility value). Ability beliefs and intrinsic value are also the major predictors of choices within the expectancy-value framework which was the foundation of our theoretical model. Choosing teaching for negative reasons, such as not getting into a preferred career, or not having anything else to choose and therefore choosing teaching as a ‘fallback’ career, was the lowest rated motivation, followed by others’ encouragement to undertake teaching, ‘social influences’.

Other motivations such as the desire to enhance social equity, the experience of having had positive prior teaching and learning experiences, the desire for job security, job transferability, and time for family were rated in between. Although it is often asserted that women mainly choose teaching as a family-friendly career, our findings showed this to be moderately rated when competing motivations were compared in a comprehensive multidimensional motivational framework.

Beginning teacher candidates perceived teaching as having a heavy workload, being highly emotionally demanding, and requiring a high level of work commitment. They also perceived it to be an expert career requiring specialised and technical knowledge. At the same time, they reported experiences of relatively strong social dissuasion from a teaching career and saw it as offering comparatively low levels of social status and salary. At the beginning of teacher education, candidates expected the demands to be high, and returns low. Yet, their mean satisfaction ratings for the choice of teaching as a career remained high (Richardson & Watt, 2006).

Following publication of the FIT-Choice scale (Richardson & Watt, 2006), and subsequent psychometric validation (Watt & Richardson, 2007a), researchers elsewhere began to use the scale to undertake studies of initial teacher motivations for career choice, including in the United States, United Kingdom, Ireland, and translations into German, Croatian, Dutch, French, Mandarin, Estonian, Spanish, and Turkish. Its widespread adoption seems to indicate that teacher motivation is an issue of concern in many different countries, and a measurement platform that permits comparisons across settings is helpful. Studies have already been conducted with samples from Australia (Richardson & Watt), the United States (Lin, Shi, Wang, Zhang, & Hui, 2012; Watt et al., 2012), Norway (Watt et al., 2012), Croatia (Jugović, Marušić, Ivanec, & Vidović, 2012), China (Lin et al., 2012), Turkey (Kiliç et al., 2012), Germany (König & Rothland, 2012; Watt et al., 2012) and Switzerland (Berger & D’Ascoli, 2012).

Teachers' motivations were more similar than they were different across these different social and cultural contexts. In China and Turkey, both collectivist cultures where career choices may be less based on individualised interests and abilities, those motivations were less important. The samples from Turkey and China were lower on the following motivations: *ability, intrinsic value, work with children/adolescents, and job transferability*; with regard to China *enhance social equity* was lowest. Of their perceptions of teaching, the Chinese participants' rated *expertise, high demand, social status, and satisfaction* with the choice of teaching as a career, the lowest. *Fallback career* motivations were uniformly low with the exceptions of China and Turkey, likely reflecting the availability of work in those labour markets. In the case of a newly industrialized country such as Turkey, fallback motivations may be more central when jobs are difficult to find, and individuals may be constrained by labour market supply and demand, structural and institutionalised forms of discrimination, and the accumulated influences of prior education and experience (Özbilgin, Küskü, & Erdoğan, 2005).

Altruistic-type social utility values (*shape the future of children/adolescents, enhance social equity, make social contribution, work with children/adolescents*) were high in general; these motivations were noticeably lowest in the Chinese sample, and moderate among the German. In the collectivistic Chinese culture, expectations of making a contribution to society may perhaps be more taken for granted (see Ho & Hau, 2014), and future teachers in Germany could perceive less agency to achieve social equity outcomes for youth through the tracked schooling structures. Rated similarly and moderately across samples were personal utility values (*job security, time for family, job transferability*) perhaps reflecting assumptions about the nature of teaching and work more generally in contemporary society.

Overall, future teachers perceived teaching as a highly demanding career, offering low rewards in terms of salary and social status. Higher salary perceptions by the German sample reflected actual context differences. The Chinese and especially Turkish samples rated the demands of teaching lower, perhaps reflecting the collectivist approach and group accountability in China, and the relative demandingness of other available work in Turkey. When comparing among countries, values about teaching as a socially responsible and morally worthwhile career, contrast strikingly with fallback career and personally utilitarian values, or beliefs that monetary rewards and status are important career outcomes.

To discover whether initial motivations mattered and whether we could predict who might stay in the career, who might leave, and why, it was necessary to map initial motivations against beginning teachers' subsequent plans. We have continued to track the experiences of the 1,651 future teachers recruited at entry into teacher education, through completion of their teaching degrees, into their early career teaching experiences. At the end of teacher education, planned persistence in the profession was significantly predicted by beginning teachers' initial *ability* motivations, *intrinsic value, social utility values, and positive prior teaching and learning* (see Watt & Richardson, 2007a). As we had expected, choosing teaching as a fallback career correlated negatively with planned persistence. We had not expected to find that personal utility values (*job security, job transferability, and*

time for family) would be inversely related to planned persistence – findings that resonate with earlier untested claims that these motivations are somehow “unworthy” (e.g., Yong, 1995). Individuals who chose teaching as a career because they perceived it to offer job security or job transferability were both less likely to plan to persist, and to be less satisfied with their career choice; those motivated by a career that allowed time for family were less satisfied with their career choice. The discrepancy between the perception that teaching provides for a short working day and the necessity to work outside of school hours, may go some way to explaining this. With regard to planned effort, professional development, leadership aspirations, and career choice satisfaction, the pattern was analogous (see Watt & Richardson, 2007a). Career choice motivations for teaching positively related to later professional engagement and career development aspirations; the exceptions being personal utility values, and the choice of teaching as a fallback career which related negatively.

Our longitudinal programme of research permits us to examine whether initial teaching motivations matter in terms of how they predict to performance, effort, and persistence in the profession. Our study highlights that following professional entry, there is an enduring effect of initial motivations on early career teachers’ professional engagement and teaching behaviors. Using our longitudinal Australian FIT-Choice data from entry to (Time 1), exit from teacher education (Time 2), and up 8 years of teaching experience (Time 3), we were able to examine the degree to which initial motivations for teaching influenced professional engagement and career development aspirations (PECDA; Watt & Richardson, 2008), and self-reported teaching style (TSS; Watt & Richardson, 2007b).

The main motivations for entering teaching – intrinsic enjoyment and the desire to make a social contribution and work with youth – predicted to later professional engagement and plans to persist in the profession at the conclusion of their teaching degrees (see Watt & Richardson, 2013), positive self-reported teaching style, and professional engagement and commitment during early career teaching. Conversely, fallback career motivations predicted lower plans to persist in teaching, lower levels of planned effort, lower leadership aspirations, and more negative reported teaching behaviors during early career. Interestingly, social influences to become a teacher led to later negative reported teaching behaviors and practices; the negative effect of strong social persuasion consequently needs to be kept in mind when encouraging students to choose the teaching profession. Personal utility values did not predict early career professional engagement or self-reported teaching behaviors.

Different Types of Beginning Teachers

Not all teachers commence with the same motivations. Even from the outset of teacher education in our Australian sample, we identified three types of beginning teachers in terms of their professional engagement and career development aspirations (PECDA, measured at the end of their teacher education programme, Time 2),

who differed in their motivational profiles (see Watt & Richardson, 2008). We named these the *highly engaged persisters* (45 % of sample), *highly engaged switchers* (27 %), and *lower engaged desisters* (28 %). Counter to our expectations, they did not differ by whether they were to become secondary or elementary school teachers, but showed different demographic characteristics, initial teaching motivations and perceptions about the profession.

The *highly engaged persisters* were most motivated by intrinsic value, perceived teaching abilities, and social utility values; they were lowest on fallback career. Eighty-four percent of this type indicated they wanted to spend their whole career in teaching. They had decided on teaching as a career the longest time ago, had lower levels of prior qualifications, came from families with the highest levels of non-English speaking background, and the lowest levels of income, and had the most number of children of their own. They were enthusiastic about becoming teachers, seeing it as their dream job that fitted with their goals and ambitions, as satisfying, varied, and interesting, and allowing them to contribute something worthwhile, even though financial rewards were not handsome. From the perspective of teacher educators, this cluster exhibited what might appear as a highly desirable profile.

The *highly engaged switchers* were equally motivated to the other types, by social utility values; in-between on intrinsic value, shape future of children/adolescents; and work with children/adolescents, and least motivated to teach as a 'fallback' career. They planned to exert high effort, undertake professional development, aspired to school leadership positions, and remained satisfied with their choice of teaching through the course of their degree; but, because they had other career plans, were not planning to stay long in the profession. The majority in this profile were already contemplating another career at the point of completing their teacher education programme, often planning on leaving teaching within a 5-year timeframe.

They had various reasons for this including feeling they would outgrow the job, a need for new challenges, a desire to experience more than one career, or being intent on keeping their options open so as to experience new things. This group came from the highest socioeconomic backgrounds, were the youngest, least likely to have children, least likely to be from non-English language home backgrounds, or to have had previous work experiences. This type provides a new and positive perspective on early career attrition; although they were not planning to spend their whole career in teaching, they did aspire to leadership positions, and it may be possible to sustain them in teaching by ensuring their ambitions are met. Policy-makers may need to target this type of teacher so as to meet the demand for leadership positions in schools.

The third cluster we identified was the *lower engaged desisters* who represented a substantial proportion of the sample (28 %). Their rather negative motivational profile is challenging because they scored the lowest on intrinsic value and all four social utility factors, highest on fallback career, and lowest across the set of professional engagement and career development aspiration factors. They became less satisfied with their choice of a teaching career through their degree, and were least likely to plan to persist in teaching which they saw as demanding and offering a

paucity of career prospects. Their open-ended comments centred around negative practicum experiences, confrontation with the demanding nature of teachers' work, lack of school structural supports, difficulties experienced in working with children/adolescents, perceived lack of career prospects, and insecure employment. They generally had higher qualifications and experience of highest status previous occupations, likely giving them a point of comparison with working conditions in schools. They came from families with the highest level of income, had the highest level of qualifications, and had most recently decided on teaching as a career.

Having identified different types of beginning teachers on the basis of their differing initial motivations, it seemed a critical question to investigate what happens to their motivations once they enter the profession. Do their motivations change over time, and do changes vary according to the teacher subtypes we identified? Would the highly engaged persisters, who exhibited a seemingly highly positive profile at completion of their teacher education, perform and cope best following professional entry? Or, might they instead be the most psychologically vulnerable to stressors and experience 'reality shock' during their early career? We found initial evidence to confirm this latter speculation, through comparing differential changes in motivations, career choice satisfaction, and self-efficacies over the first 5 years of teaching (Watt & Richardson, 2010). Disturbingly, their positive motivations became frustrated on commencing in the teaching profession, mainly due to perceived lack of schools' support, and even structural hindrances.

The highly engaged persisters, who held the most idealistic motivations, maintained these to the same degree from commencing teacher education through into early career teaching. However, their stable idealistic motivations were associated with reduced career choice satisfaction, planned persistence, and self-efficacies. In contrast, the highly engaged switchers adjusted their motivations downwards; and their satisfaction with their choice of career, planned persistence, and self-efficacies remained stable. The lower engaged desisters adjusted their motivations upwards and their satisfaction with choice, planned persistence, and self-efficacies also remained stable – perhaps reflecting positive changes following taking up a teaching position. It seems that motivational adjustments could be an adaptive coping response when there is a mismatch between individual motivations and professional demands and affordances. The costs of maintaining high idealistic motivations when these may be unable to be achieved, appeared to be diminished career satisfaction, and reduced belief in their own skills to achieve valued outcomes.

In a separate sample from the United States, we again distinguished three clusters (Watt, Richardson, & Wilkins, 2014), two of which resembled the Australian "highly engaged persisters" (48 % of the sample) and "lower engaged desisters" (32 %). A new third cluster was the "classroom engaged careerists" (20 %) who scored high on planned effort, professional development plans, and persistence, but equally low with the "lower engaged desisters" on leadership aspirations. They were most motivated to teach based on their perceived teaching abilities and intrinsic values, as well as their desire to work with youth, shape the future of youth, and to enhance social equity, and had decided upon teaching the longest time ago, showing little interest in becoming a school leader but intent on a career as a classroom

teacher. This indicates that the identifiable types of beginning teachers are partly dependent on the social and cultural context in which teaching career structures operate to provide for career development.

What Teachers Want and What They Need to Be Effective

As mentioned, other researchers from different motivation theoretical bases have also turned their attention to teachers and their motivations, drawing on achievement goal theory and self-determination theory to develop their programmes of research. Both lines of enquiry have focused on teachers working in school contexts rather than future teachers, and have been concerned with how teacher motivation impacts student motivation, and principals' behaviors impact teacher motivation and sense of accomplishment.

Teacher Motivation from an Achievement Goal Theory Perspective

Achievement goal theory provided the foundation for the development of the Goal Orientation for Teaching approach which was designed to tap teachers' motivation for what they sought to achieve during their classroom teaching (Butler, 2007). Teachers were asked to rate their agreement with statements such as, "I would feel that I had a successful day in school if something that happened in class made me want to learn more about teaching" (Butler, 2007; Butler & Shibaz, 2008; Retelsdorf, Butler, Streblov, & Schiefele, 2010). Teachers were shown to exhibit *mastery goals*, reflecting a desire to learn professionally and to enhance teaching skills and abilities; *ability-approach goals* which involve the demonstration of superior teaching ability; *ability-avoidance goals* to avoid displaying failure through poor quality teaching; and *work-avoidance goals* for effort minimisation, and getting by doing as little as possible.

Teachers' mastery goals were associated with higher levels of perceived teacher support and positive instructional practices such as question asking and help seeking, whereas their ability avoidance goals were associated with negative instructional practices as represented by students – avoiding student questions and students cheating on their school work (Butler & Shibaz, 2008). The job of teaching is unique in that teachers incorporate goals for others as part of their own set of work goals. In other words, teachers seek to, "construct and strive to attain goals for their students" (Retelsdorf et al., 2010, p. 42). As a result, their sense of personal accomplishment, feelings of competence, experiences of mastery, and goal orientation are intricately sensitive to their students and school community.

Given the uniquely relational and interpersonal nature of teaching, Butler extended her achievement goal theoretical framework to incorporate teacher strivings to achieve and maintain close and caring relationships with students. These 'relational goals' have been found to associate with adaptive coping and positive instructional strategies such as socioemotional support and cognitively stimulating instruction. Similarly, Shim, Cho, and Cassady (2013) in a sample from the United States Midwest found teachers' achievement goals to associate with the classroom environments they created. Mastery goals for teaching predicted the creation of classroom mastery environments, whereas performance-approach goals predicted teachers' creation of a classroom performance focus.

Using essentially the same dataset, Cho and Shim (2013) examined impacts on teachers' goals for teaching where they perceived a mastery-oriented school environment. Teachers who were located in mastery-oriented environments tended to adopt mastery goals for teaching, whereas teachers working in performance-oriented school environments were more likely to adopt performance-approach goals for teaching. Teachers who had the highest self-efficacy tended to endorse both mastery and performance-approach goals, and a desire to maintain high mastery goals for their teaching even when the school encouraged performance goals. Teachers with lower levels of self-efficacy tended to conform to the school goal environment. In a separate United States study, highly performance-oriented school environments, were also associated with teachers' adoption of performance-approach goals for teaching, reduced motivations, and lowered sense of community (Ciani, Summers, & Easter, 2008). These studies highlight the importance of school cultures and their impact on teachers' own goals for teaching and the classroom climates they create for students.

Teacher Motivation from a Self-Determination Theory Perspective

Self-determination theory (Ryan & Deci, 2000) is concerned with the differentiation between self-determined autonomous versus controlled motivations. The theory rests on the assumption that there are three basic human psychological needs: to experience competence, autonomy, and relatedness in terms of a sense of belonging. Individuals experience *autonomous* motivation when they perceive themselves as the 'origin' of their own behaviour; people who perceive themselves to be 'pawns' and subjected to forces beyond themselves, experience *controlled* motivation. It is possible that initially autonomous motivations, such as the decision to become a teacher, could turn to controlled motivations because the actual experience of being a teacher in a controlling school context could produce experiences of compulsion and external accountability. Principals of schools, who display trust in teachers and believe autonomous motivation to be important, predict teachers' autonomous motivation (Roth, 2011, 2014).

Teachers' controlled motivations result in negative outcomes for themselves and their students because they undermine a teacher's confidence (Pelletier, Séquin-Lévesque, & Legault, 2002). To meet external accountability requirements teachers may employ instructional practices at odds with their beliefs and values which create friction, feelings of irritation, resentment, and emotional exhaustion (Roth, 2014). By contrast, teachers' experiences of autonomous motivations predict positive psychological outcomes for themselves and their students, reduce teacher burnout, and positively relate to teachers' personal sense of accomplishment, autonomy-supportive teaching behaviours, and students' own autonomous motivation to learn (Roth et al., 2007). Disturbingly, evidence is accumulating that accountability reforms decrease teachers' control (and increase external control), and undermine positive and autonomous motivations, leading to burnout (Fernet, Guay, Senécal, & Austin, 2012; Pelletier et al., 2002). From a sociological perspective, two factors in the United States context have been found to be critical to the decision of minority teachers to leave one school for another, or to leave teaching altogether – the level of collective decision-making in the school, and the degree of individual instructional classroom autonomy (Ingersoll & May, 2011).

What Undermines Teacher Motivation, Engagement, Commitment and Quality?

The majority of people who remain in teaching are satisfied with their choice of career and find the work satisfying and rewarding (Borg & Riding, 1991; Rudow, 1999), yet it is a complex, challenging, and psychologically demanding career. In carrying out their daily work, teachers are expected to perform multiple and often competing roles – to be a mentor, friend, disciplinarian, advisor, academic guide and gatekeeper, as well as having responsibility for mandatory reporting. At the classroom level teachers are often trying to maintain a friendly and productive learning environment while managing constant interruptions, large classes, rule violations, failure to achieve goals, and sometimes verbal or even physical assaults (Kyriacou, 2001).

These and other sources of stress that have been identified include: increasing workload, work intensification, lack of resources, poor professional relationships with colleagues, inadequate salary, students with behaviour problems, challenging interactions with parents, expectations of other staff, lack of support from the school leadership, and lack of autonomy (Center & Callaway, 1999; Long & Gessaroli, 1989; Pithers & Soden, 1998; Pyhältö, Pietarinen, & Salmela-Aro, 2011; Skaalvik & Skaalvik, 2007). In light of these demands, it is not surprising that teaching is regarded as highly stressful. When compared to other client-related professions, teachers have been found to experience higher levels of work-related stress (Travis & Cooper, 1993), and are prone to burnout more than other professionals (de Heus & Diekstra, 1999; Montgomery & Rupp, 2005; Stoeber & Rennert, 2008). Work-

related stress, poor work engagement and self-regulation, rank as important reasons why teachers lack work motivation, job satisfaction and leave the profession (Darling-Hammond, 2001; OECD, 2005).

When people decide they have the abilities and the interest to teach, they also have expectations, values and beliefs that orient them toward the work that teachers do with youth, and expectations concerning what they will be able to achieve by working to develop the next generation. The nature of the work that teachers do is increasingly impacted by accountability measures designed to improve both teacher quality and student achievement, but motivational theories and empirical studies caution against over-reliance on competition and standardised testing as drivers of educational reform. These measures lead to reduced teacher autonomy and experiences of competence – two of the basic human needs according to self-determination theory. It is increasingly recognised that teachers' interpersonal relationships with students are circumscribed by new management arrangements designed to monitor and assess how teaching and learning are conducted – reducing opportunities to meet the third basic need of relatedness, which Butler has shown to be an important goal for teachers.

Ongoing curriculum and educational reforms, assessment regimes, and the introduction of new technologies into schools have resulted in a changed work environment and work intensification (Leithwood, 2007). If highly valued goals and expectations cannot be attained in particular school contexts or school systems, and teachers experience reduced autonomy, sense of achievement and competence, then teachers' motivations can become a double-edged sword that lead to reduced professional engagement, and fuel disappointment, emotional exhaustion, and eventual burnout (de Jesus & Lens, 2005).

Teacher motivation is complex and multidimensional. What attracts people into the career may be different from what sustains effective teachers across different phases of their life-span. We need to know more about how motivations change over time and how teachers remain resilient in the face of challenges. Findings from the most recent TALIS (2014) survey suggest that positive teacher-student relationships (see Butler, 2012) and the collaborative work that teachers do together are critical to teacher job satisfaction. Teachers in China and Japan are given a great deal more time in which to officially share their expertise and to learn from one another (Paine & Ma, 1993; TIMMS, 2011; Wang, 2001). These collaborations and opportunities for public sharing of skills, curriculum strategies and materials, open up possibilities for teacher professional learning that potentially foster competence, autonomy, and a sense of belonging.

Recurring themes identified by the OECD TALIS (2014b) survey centred on the value that the broader society places on teachers' work and the often perfunctory appraisals and feedback offered to teachers in evaluating their work. Teachers are expected to be effective in all socioeconomic contexts, to compensate for social dislocation and disadvantage, and to ensure that all children are able to meet the demands of standardised tests, regardless of the backgrounds of the students sitting before them. People who are motivated to go into teaching by a strong desire to undertake work that is morally worthwhile to make a social contribution, and

enhance social equity, may find themselves in a work environment where the demands quickly outweigh their personal resources. Teachers who find themselves buffeted and burdened by challenging working environments with few supports from the local community and their school's professional community, are likely to experience lowered commitment and professional satisfaction. A recent study measuring job motivation, self-efficacy and teachers' perceptions of their professional lives among 1,187 elementary and secondary teachers in England, revealed that teachers with high levels of stress also had high levels of self-efficacy and job motivation. Causes of work-related stress were issues that impacted their personal satisfaction with their professional lives rather than factors related to classroom effectiveness (Mujtaba, 2013). Factors beyond the classroom and interactions with students would appear to be the source of the destructive frictions that erode teacher motivation and undermine work satisfaction.

Research now rests on theoretically grounded and psychometrically strong shared approaches to examine teaching motivations and their influences over time. Further developments in the field are expected as theoretically grounded measures developed so far, are more widely applied in different sociocultural contexts where we would expect similarities and important differences to be identified based on aspects such as salary, status, teacher education, and career mentoring. Empirical research founded upon robust motivational theories over the last decade or so, has highlighted the importance of initial teacher motivations and different types of teacher motivation among practising teachers, as well as the ongoing influences these have on teacher professional engagement, instructional practices, relational expectations, student engagement and learning. We also need studies during teacher education to examine whether motivation can be enhanced or changed as a result of particular types of programmes.

Methodological Challenges and Future Directions

Considerable strides have been made over the past decade and more that help us understand the complexities of what motivates people to choose a teaching career; next, we can gain insights into what motivations sustain teachers in the career. Research drawing on robust motivational theories has confirmed that teacher motivations are important, because they predict to both positive and negative outcomes in terms of teaching behaviours, work commitment, and teachers' health and wellbeing.

Almost two decades ago Huberman (1989) observed that motivations and values are likely to change across the lifespan of a teaching career, and, that although it would be scientifically important to map those changes; it would be unlikely for sufficient resources to be available. We began such a programme of research in Australia in 2002, which continues to follow the same individuals from their entry into teacher education, completion of teacher education, into early career, and through into midcareer. The FIT-Choice project (www.fitchoice.org) is a longitudi-

nal study designed to examine if and how teacher motivations change over time, factors that sustain and undermine motivations, and influential antecedents and consequences. While longitudinal studies are costly in terms of time, commitment and resources, they are essential if we are to understand how initial motivations predict to important outcomes such as student motivation, educational commitment, and achievement.

By using the same measures across different kinds of samples and settings, it has been possible to examine how different motivations play out in a variety of contexts. If we are to relate the development of teacher motivations to important contextual factors, comparative studies across cultural and country settings are essential, especially where they differ on relevant dimensions such as salary, status, teacher education, and in-service mentoring. Studies such as these become “natural experiments” with which to inform policy.

Next steps for the field would seem to be to embed intensive qualitative interview components into larger survey studies. Although there have been many rich interview studies previously, their value can be maximised to powerfully illuminate particular processes for theoretically identified different types of teachers operating in particular school contexts. Complementarily, classroom observations of enacted teacher motivations and behaviors, and their influence on student motivation and behaviors, would facilitate greater understanding of how teacher motivations relate to the classroom climate students experience.

Increasingly in the social sciences we have sophisticated methods of data collection and analysis at our disposal. For instance, hierarchical linear modelling allows us to disentangle the impact of person characteristics from school context on teacher motivations, engagement, and emotions (e.g., Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008) and thereby impacts on students. Unravelling teacher effects is challenging, particularly in the secondary school setting where students have different teachers for different subjects. We need to understand how individual contextual moderators and mediators impact the relationships between multiple contexts, motivations and outcomes. For instance, why do the *highly engaged persisters* identified in our work, appear to maintain stable motivations through into early career, whereas the *highly engaged switchers* and *lower engaged desisters* undertake motivational adjustments? Do the *highly engaged persisters* experience greater psychological costs by not adjusting their motivations downward, making themselves vulnerable to declining confidence to meet the demands of the job, and, in time, susceptible to career burnout?

We need to find ways to directly measure outcomes for students to determine which outcomes for teachers benefit students and which do not. It seems logical and reasonable given the size of the teacher workforce that we might expect considerable variation in the quality and effectiveness of teachers and that their individual characteristics may fit better in some school and community contexts than in others. Clearly, one size does not fit all. Pursuing this line of enquiry will be neither methodologically nor politically easy to achieve and has complex implications for teacher selection into teacher education, the content of teacher education, and teachers' professional development.

Motivation, emotion, cognition and motivation are fundamental to the human experience. Researchers from complementary disciplinary perspectives have begun to focus attention on the emotional experiences of teachers (e.g., Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009; Frenzel, Goetz, Stephens, & Jacob, 2009; Hargreaves, 2005; Sutton & Wheatley, 2003; Zembylas, 2004). This work acknowledges that, “teaching is a messy job because it requires dealing with individuals and groups of young people who are struggling to develop their identities while facing personal challenges and other outside stresses” (Bernstein-Yamashiro & Noam, 2013, p. 46); it is work that is often emotionally demanding and exacting. Teacher emotions are being increasingly linked with teacher motivations, teaching quality, job satisfaction, health and wellbeing (Frenzel, 2014).

Through this work we are learning more about the discrete emotions teachers experience when working with students, as well as navigating relationships with their colleagues, parents and administrators. We are also learning more about the forerunners to these emotions, and how they are expressed and regulated on a daily basis. A recent study conducted in Germany found that students’ motivation was the strongest predictor of teacher enjoyment and pride and that about 80 % of the variance in teachers’ enjoyment, pride and anger was within the individual teacher whose emotions varied from lesson to lesson. Teacher emotions influence instructional behaviours, which impact student outcomes and behaviours (Becker, Keller, Goetz, Frenzel, & Taxer, 2015). Teachers primarily experience positive emotions such as pride and enjoyment (e.g., Keller, Frenzel, Goetz, Pekrun, & Hensley, 2014), and positive emotions can provide teachers with a resource that may sustain them professionally (Fredrickson, 1998). There is a pressing need to understand how positive emotions are generated and how they impact a teacher’s health and wellbeing in the short and longer term.

We also need to know more about how teachers generate “faked” enthusiasm and the consequences of doing so over the course of a day, a week, or indeed a whole school year. Teachers experience anger and frustration that they need to suppress (Taxer & Frenzel, 2015); are there long term consequences for their own health, wellbeing and motivation? New methods of experience sampling are likely to help us know more about the relationship between teachers’ emotional experiences of anger, anxiety and even boredom in the classroom and their motivations. We are yet to find ways of measuring underlying or unconscious motives, and to determine whether there are state motivations for teaching and how these are activated. To better attract, equip, and sustain effective, committed, quality teachers in the profession, we recommend that researchers continue the integration of complementary fields of related research, enquiry grounded in robust theory, utilisation of contemporary methods and methodologies across diverse samples and settings over time, which promise enriched evidence-based understanding to make recommendations for policy and practice.

Acknowledgements The FIT-Choice project (www.fitchoice.org) is supported by sequential Australian Research Council Discovery Projects DP140100402 (2014–2016; Richardson & Watt), DP0987614 (2009–2012; Watt & Richardson) and DP0666253 (2006–2009; Richardson, Watt, & Eccles).

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Chapter 23

Being a Student of Teaching: Practitioner Research and Study Groups

Robert V. Bullough Jr. and Leigh K. Smith

Unless a teacher is a [student of teaching], [s/he] may continue to improve in the mechanics of school management, but [s/he] can not grow as a teacher. (Dewey, 1904, p. 15)

Although Dewey specifically refers to learning to teach in his cautionary statement, the words remain true for practicing teachers, the focus of this chapter. Students of teaching are, “those who are prepared to learn from teaching over the course of a lifetime ... having opportunities for collaboration and reflection, questioning (and questioning [their] own questions), observation and inquiry” (Cochran-Smith, 2001, pp. viii–ix). Here we are concerned not with *becoming* a student of teaching, but with *being* a student of teaching (Bullough & Gitlin, 2001).

There are two dimensions to being a student of teaching: a personal dimension and a contextual dimension. The personal includes one’s attitudes, including the desire to learn (Jensen, 2007), beliefs, knowledge, and skills; it is concerned especially with questions of identity (Vetter, 2012; Vetter & Russell, 2011). To be a student of teaching one must come to think of oneself in some sense as a researcher as essential to teaching. The challenge, according to Csikszentmihalyi (1993), is for individuals to set goals for personal growth by remaining open to the, “potential for involvement that surrounds them” (p. 246). The contextual dimension includes the nature and origin and the relative abundance or scarcity of opportunities to learn and to grow on the job, as well as the variations in degrees of support available for teacher learning. The contextual challenge for teachers, policy makers, and administrators involves developing and then sustaining work practices and conditions that

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inspire and nurture the continuous engagement of educators in inquiry about teaching and learning.

In this chapter we explore both dimensions, the personal and the contextual. To initiate discussion of the first dimension, the chapter begins with a portrait of the student of teaching, drawn from selected writings of Dewey (1910, 1929, 1933) and expanded slightly by insights from Schön (1987) and from Bereiter and Scardamalia (1993) in their studies of expertise. Following this portrait, we frame discussion of the contextual dimension of being a student of teaching with a brief overview of recent research on international patterns of professional development, as influenced by societal and policy changes in different parts of the world, including places where professional development is a luxury. Next we present the results of an extensive international literature review related to being a student of teaching, highlighting two groups of professional development opportunities that encourage and support teacher growth through thoughtful questioning, observation, and inquiry about teaching and learning. Given the large number of relevant publications, we necessarily narrowed our focus to articles from the last decade. A brief summary of the findings from our review follows, highlighting three widely present themes that emerged from the review: identity, trust, and teacher talk. Finally, using self-determination theory (SDT; Deci & Ryan, 2012) as an interpretative lens, we identify what we believe are some of the most fundamental issues now facing students of teaching and their allies, including a needed shift in focus toward greater emphasis on culture building and teacher well-being.

Recognizing the Personal and the Contextual Dimensions of Being a Student of Teaching

The Personal Dimension: Reflective Practice

Dewey offered a view of being a student of teaching that in more recent times has been expressed in the writings of Schön, among others. Drawing on Dewey, Schön (1987) described the challenge of learning a practice like teaching in this way:

When we have learned how to do something, we can execute smooth sequences of activity, recognition, decision, and adjustment without having, as we say, to “think about it.” Our spontaneous knowing-in-action usually gets us through the day. On occasion, however, it doesn’t. A familiar routine produces an unexpected result; an error stubbornly resists correction; or, although the usual actions produce the usual outcomes, we find something odd about them because, for some reason, we have begun to look at them in a new way. All such experiences, pleasant and unpleasant, contain an element of *surprise*. Something fails to meet our expectations. In an attempt to preserve the constancy of our usual patterns of knowing-in-action, we may respond to surprise by brushing it aside, selectively in attending to the signals that produce it. Or we may respond to it by reflection. (p. 26)

Schön suggested there are two ways of attending to a problem in practice: We may stop and think or, “we may reflect in the midst of action without interrupting

it” (1987, p. 26). Both responses call for obtaining and refining data, and both are purposeful, driven by the desire to achieve an end even if that end involves nothing more than regaining lesson momentum. The intent, as Dewey (1933) wrote, is to transform a, “perplexing, confused, unsettled situation” into one that is, “coherent, clear, and decided or settled” (p. 165); it is a matter of better knowing what to do next. The process is one of thought directing action and of thought becoming more efficient, purposeful and effective even as it inevitably involves feeling one’s way along. On this view, thinking is, as Bode (1940) suggested, primarily a matter of, “finding and testing of meanings” (p. 251).

But to say a situation is “settled” is not to say that it is certain: Data must become evidence in support of an inference, a best guess, about what to do, and this involves experience, memory and knowledge. The richer these sources of ideas may be, the more likely a promising candidate for action will be found, one that will “unify” data and hypothesis (Dewey, 1933, p. 169). Often in the midst of action an idea literally “pops” (Dewey, p. 109) to mind, and tests occur; additional data are sought and perhaps rejected; new meanings are formed and entertained—all in a flash. Ideas, “just occur or do not occur, depending ... on the state of culture and knowledge at the time; upon the discernment and experience and native genius of the individual; upon his recent activities; to some extent upon chance” (p. 109). Moreover, “while the original happening of a suggestion, whether it be brilliant or stupid, is not *directly* controlled, the acceptance and use of the suggestion is capable of control, given a person of a thoughtful habit of mind” (p. 109). Thus when teachers display, “a thoughtful habit of mind,” rightly they are recognized as students of teaching, people who consistently and persistently think deeply and carefully about their practice. Such teachers study practice. But as Schön (1987) stated, in the:

action-present—a period of time, variable with the context, during which we can still make a difference to the situation at hand—our thinking serves to reshape what we are doing while we are doing it ... we reflect-in-action. (p. 26)

For the habitually thoughtful practitioner, one whose identity as a teacher is linked to inquiry, the aim is not just solving practical problems in the moment, but of growing into the practice and of finding ever deeper pleasure and interest within it and in the challenges it presents. Thought leads to action; and through critically considering action, it may also lead to expertise (Bereiter & Scardamalia, 1993). To grow into a practice is more than a matter of knowledge and skill; it is also a matter of the development of certain desirable attitudes. As Dewey (1933) asserted, “Knowledge of the methods alone will not suffice; there must be the desire, the will, to employ them. This desire is an affair of personal disposition” (p. 30). Among the desired attitudes for Dewey were (a) open-mindedness, a, “willingness to consider new problems and entertain new ideas” (p. 30); (b) “whole-heartedness,” a “genuine enthusiasm” (p. 32) to better understand or alter a situation; and (c) “responsibility,” attentiveness to consequences and responsiveness to their implications for belief (p. 32). Thus students of teaching are not merely knowledgeable and skilled thinkers and problem solvers but also persons characterized by the qualities of open-mindedness, whole-heartedness, and integrity.

To open the processes involved in reflective thinking to thought and criticism, Dewey (1933) generated a model composed of a set of “five phases,” non-linear activities, actions, concerns or “states of thinking”:

(1) *suggestions*, in which the mind leaps forward to a possible solution; (2) an intellectualization of the difficulty or perplexity that has been *felt* (directly experienced) into a *problem* to be solved, a question for which the answer must be sought; (3) the use of one suggestion after another as a leading idea, or *hypothesis*, to initiate and guide observation and other operations in collection of factual materials; (4) the mental elaboration of the idea or supposition as an idea or supposition (*reasoning*, in the sense in which reasoning is a part, not the whole, of inference); and (5) testing the hypothesis by overt or imaginative action. (p. 107)

Of import, what counts as a problem is not only a matter of identifying deficits in performance, but of addressing questions of interest and concern to practitioners, problems that stretch abilities and when resolved offer the, “joy [that] comes from going beyond what one has already achieved, from mastering new skills and new knowledge” (Bereiter & Scardamalia, 1993, p. 177).

Contrary to some interpretations, Dewey’s model gives ample room for curiosity and wonder, a conclusion of considerable importance to this chapter. Moreover, the model invites a broadening of what counts as both problems and solutions by encouraging confrontation with habitual ways of thinking and doing, with blind spots in understanding. Additionally, while the intent is to enable problem solution, Dewey (1910) recognized that, “intellectual progress usually occurs through the sheer abandonment of questions ... We do not solve them: we get over them” (p. 19). Clearly, there is no more difficult intellectual challenge to productive inquiry than that of getting the questions right. As Dewey points out, “a question well put is half answered. In fact, we know what the problem *exactly* is simultaneously with finding a way out and getting it resolved” (Dewey, 1933, p. 108).

Dewey’s conception of what is involved in being a student of teaching, what we have characterized as the personal dimension, is normative, a standard of practice, an important personal and professional identity to be striven for. His is a view that challenges aspects of increasingly influential conceptions of teaching as merely or mostly the practice of a coachable craft (see Green, 2014), while elevating in importance the intellectual abilities, esthetic sensibilities, and qualities of character possessed by extraordinary and thoughtful teachers, persons who are students of teaching.

The Contextual Dimension: Opportunity and Support for Teacher Learning

For teachers to form and maintain identities as students of teaching, the contexts in which they work must be environments in which inquiry is an expectation and a way of being. And yet, as Avalos (2011) asserts, teacher learning, “occurs in particular educational policy environments or school cultures, some of which are more

appropriate and conducive to learning than others” (p. 10). Acknowledging the need for sensitivity to the influence of context on teacher development and identity and to the diversity of the extant research (Little, 1996), here we offer a brief overview of some aspects of teachers’ work that afford or limit their ability to become and be students of teaching. Examples from specific countries are used at times to illustrate these effects.

Forty years ago, Stenhouse (1975) described the essential attribute of teachers’ lives that enables the development of self as a student of teaching as, “a capacity for autonomous professional development through systematic self-study, through the study of the work of other teachers and through questioning and testing of ideas by classroom research procedures” (p. 144). Since Stenhouse wrote, social and economic changes in countries throughout the world, including those in North and South America, Australia, and Europe, have to varying degrees resulted in a shift away from valuing the autonomous professional teacher as one who makes personal decisions about curriculum, instruction, and assessment (Day & Sachs, 2004), and voluntarily selects opportunities for professional learning based on personal need or interest (Sugrue, Morgan, Devine, & Rafferty, 2001).

Today globalization, international interdependence, and economic competitiveness have led to both positive and negative consequences for teacher learning. In the European Union (EU), for example, these global, economic, and political influences have contributed to a, “cauldron of educational reform, restructuring and reconceptualization” (Sugrue, 2004, p. 67), prompting calls for lifelong learning for all individuals, but especially for teachers as role models (Livingston, 2014; Organization for Economic Cooperation and Development, 1998). Opportunities and pressures for formal and informal, in-school and out-of-school, professional learning have increased “exponentially” (Sugrue, p. 71). However, in many instances this expectation has been perceived by teachers as a further demand and burden on their time and energies, rather than as enabling, empowering, and supportive (Sugrue et al., 2001). At the same time, in some parts of the world, notably in parts of the Middle East and Africa, many economies, “have collapsed, a number of states have disintegrated and societies are wracked by famines, epidemics, civil wars, and violence” (Christie, Harley, & Penny, 2004, p. 168). In some of these countries (e.g., the Democratic Republic of Congo), the formal education system has disintegrated and teacher professional development is nonexistent.

Meanwhile, education in both developed and emerging nations has, “increasingly [been] perceived as an engine for economic growth” (Sugrue, 2004, p. 70; see also Avalos, 2004; Grundy & Robison, 2004). This phenomenon has been influential in developing centralized imperatives, “for education systems to be able to deliver education programmes for both students and teachers that are efficient, effective, and economical” (Day & Sachs, 2004, p. 4; see also Avalos, 2004; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Sugrue, 2004). In turn, this quest has been accompanied by more pronounced government intervention in education. National policy makers, sometimes with educator involvement, have developed and in some cases later re-envisioned standards and curricula that represent a fundamental shift in what and how young people are to be taught (e.g.,

Department for Education, 2013; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010; NGSS Lead States, 2013; NRC, 1996, 2012). Such reforms, standards, and accompanying curricula, which are mandated in many nations (e.g., countries across Europe; see, for example, Department for Education), have frequently been benchmarked using international assessments as a basis for comparison (e.g., Programme for International Student Assessment).

In order to achieve these goals, ever-higher standards of performance have been set for student achievement, and, as in the EU, professional learning for educators has been seen as essential, although the reasons given differ by country. In the US, for example, quality professional development is viewed as, “a crucial step in transforming schools and improving academic achievement” (Darling-Hammond et al., 2009, p. 3; Garet, Porter, Desimone, Birman, & Yoon, 2001; Standards and Testing Agency, 2014). Despite increased attention to equity in education, with concern for education for all (Avalos, 2004; NRC, 2012), national standards for student learning often ignore cultural, social, and economic differences even as increased migration to some nations has dramatically increased the complexities of teachers’ work (Hargreaves, 1994, 2000).

Changes in the way education systems are funded and managed have also impacted the contexts of teachers and teacher learning in both developed and developing nations (Avalos, 2004; Little, 2004; Sugrue, 2004). Although there is some evidence of a shift back toward centralization in some areas (Sugrue), decentralization and privatization in education governance has over the past two decades altered management and funding of education systems, “moving from hierarchical, input-oriented governance models to out-put oriented steering from a distance” (Busemeyer, 2012). Tensions between the individual needs of teachers and the collective responsibility of systems have followed: While funding and governance rest with districts and schools, “centrally defined imperatives” (Day & Sachs, 2004, p. 8) linked to reforms and associated accountability and performativity measures have also intervened (Avalos, 2004; Day & Sachs, 2004; Grundy & Robison, 2004; Little, 2004). In the end, although the success of reform initiatives continues to depend primarily on classroom teachers (Spillane, 1999), local needs and contextual differences may be ignored. Instead, the assumption is that teachers and teaching as well as students and learning can be “fixed” through outside intervention, as if all educative environments can be assessed and judged using the same criteria and associated rubrics.

Recognizing the magnitude of change required by new reform initiatives and standards, policy makers in some countries have demanded, even mandated (cf. The Teaching Commission, 2004), “high quality” programmes to help teachers succeed in enabling children to meet ambitious tested performance standards. One result is that what counts as “professional” has been redefined, as Brennan (1996, as cited in Day & Sachs, 2004) argues,

[Today’s professional] clearly meets corporate goals, set elsewhere, manages a range of students well and documents their achievements and problems for public accountability purposes. The criteria of the successful professional in this corporate model is of one who

works efficiently in meeting the standardised criteria set for the accomplishment of both students and teachers, as well as contributing to the school's formal accountability processes. (p. 22)

Thus although often maligned by teachers as irrelevant to their individual practice (Guskey, 1986; Little, 1993; Smylie, 1989, 1996), teacher professional development is widely thought to be the, "best bet for changing teaching practices, because alternative methods, such as policies and programs that regulate teacher behavior, have fared no better" (Supovitz & Turner, 2000, p. 964).

Types and sources of professional development vary; some are self-selected, some required. Based on their examination of teacher professional development in Australia, Grundy and Robison (2004) suggested there are two "drivers" of these learning opportunities, consistent with our earlier discussion of the personal and contextual dimensions of becoming a student of teaching: the personal and the systemic (p. 146). This seems to be true for many countries worldwide. The international literature suggests systemic drivers depend on cultural, social, economic, and political factors; usually they are centrally defined. The personal driver, "refers to the personal desire and motivation by teachers to sustain and enhance their professional lives" (p. 147). While these two drivers may be in harmony in some contexts, in others they compete. For example, in the US and many other developed countries, unless occasions for teacher learning are teacher-initiated, organized, and led (or somehow associated with graduate study), the organized professional learning opportunities are often associated with national or state-level initiatives whereby teacher development is coupled with dedicated or categorical funding and linked specifically to standards-based accountability systems over which teachers have very little influence. As a result, teachers, "increasingly work in a political context in which external, 'restructuring' changes ... to raise standards of achievement, exert priority over their own vision of desirable improvements" (Bolam & McMahon, 2004, p. 35).

A variety of strategies have been used to deliver professional development in recent years. The most common of these worldwide continues to be in-service education and training (INSET), defined as, "a planned event, series of events, or extended programme of accredited or non-accredited learning" (Day, 1999, p. 131). At the same time, however, there is evidence of a growing effort toward involving teachers more actively in knowledge construction (Elliott, 2012) through collaborative, inquiry-based approaches to teacher learning (Dudley, 2012; Little, 2004). Such alternatives have begun to spread throughout the world (Lewis, Perry, & Friedkin, 2011). Supported by research, this more recent trend has called attention to the contextual conditions most likely to support teacher development and change (cf. Darling-Hammond et al., 2009; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; van Driel, Beijaard, & Verloop, 2001). Among the conclusions are that effective professional development is (a) sustained and intensive, (b) collaborative, (c) connected to practice, (d) focused on specific academic content, and (e) connected to school initiatives. There are, however, significant differences in what counts as appropriate and effective models of professional development across cultures and countries (Bolam & McMahon, 2004). As Hargreaves (1994) argued,

understanding the requirements for changing practice is, “to be found in the wider social context in which schools operate and of which they are a part” (p. 3).

As noted, recent trends in professional development call attention to the power and influence of context on teacher learning and development as well as to the personal dimensions of teacher learning. A key point for this chapter is that the kind of learning experiences offered to teachers can both open and close opportunities for teacher development. They determine what is valued and valuable and strongly influence what counts as being a student of teaching.

Being a Student of Teaching: Practitioner Research and Study Groups

Confirming Orland-Barak’s (2009) assertion that, “practitioner inquiry is *by nature a practice of variety*” (p. 118), our review of literature describing teacher professional learning from the past decade identified two broad and loose groupings or families of inquiry practices: (1) *practitioner research*, including action research, teacher research, and self-study, and (2) *study groups*, including lesson study, select forms of peer coaching, critical friends groups, and book groups. Although these two families overlap in many ways, differences, mostly in organization and emphasis, have emerged that support a division.

An explanation is needed about how these two categories were identified and more about the distinctions we draw between them. Initially, we approached our task by carefully considering the taxonomies developed by Cochran-Smith and Lytle (2009) with their “five major genres” of practitioner inquiry, as well as Zeichner and Noffke’s (2001) roughly parallel groupings of practitioner research “traditions.” The five genres identified by Cochran-Smith and Lytle are (a) various forms of action research, (b) teacher research, (c) self-study of teaching and teaching education practices (S-STEP), (d) the “scholarship of teaching” (higher education studies of teaching practice linked to student learning), and finally (e) “using practice as a site for research” (when university-based researchers enter a school setting for an extended period of time to study various problems of practice). “Eight features” united these five genres: (a) the dual role of practitioner and researcher, (b) some form of collaboration, (c) recognized value of insider knowledge, (d) professional practice as the site and focus of inquiry, (e) blurred boundaries between inquiry and practice, (f) conceptions of validity and generalizability, (g) systematicity and intentionality, and (h) publicity, public knowledge, and critique.

Given our primary concern in this chapter with inservice preK-12 teachers, our literature review necessarily excluded two of the five genres, “scholarship of teaching” and “using practice as a site for research.” Due to our familiarity with the literature on action research, we first focused attention on this genre and then broadened our search. To locate relevant articles, we employed a wide variety of descriptors. As we proceeded, it became apparent that the three genres of inquiry involving practicing teachers, which we eventually placed in the practitioner research group-

ing—action research, teacher research, and self-studies—blend in all sorts of ways, even in the same paper (see Casey, 2012a; Vozzo, 2011). For example, all three of these genres are concerned with improving practice, and all involve data gathering and analysis. What distinguishes them is often subtle. For example, on the whole, compared to action research self-study gives more direct and explicit attention to how teacher knowledge, beliefs, and experiences influence personal practice. Moreover, as Cochran-Smith and Lytle (2009) observed, although university faculty members undoubtedly conduct most self-studies, they have a small but apparently expanding place in preK-12 teacher inquiry. All three genres often involve support of university faculty, sometimes faculty who work for extended periods of time in a school setting. Frequently such inquiries are part of graduate study and are linked specifically to student and teacher learning.

As our search broadened, teacher inquiries emerged with characteristics that placed them outside the genres described by Cochran-Smith and Lytle. We describe these forms of inquiry as *study groups*. In contrast to practitioner research, these studies are generally more intimate, usually teacher led and relationally dependent, frequently of short duration and intense. They are also less broadly ambitious and less driven by a desire for a break in established institutional traditions or personal practices than focused on individual teacher incremental learning and growth, especially on relationship building. We noted important within-category differences in this second grouping. For instance, both lesson study and some forms of peer coaching involve observation, data gathering, and focused discussion of classroom practice, but lesson study is less hierarchical and seemingly less judgmental as well as more carefully centered on observation of and attention to students during the teaching and learning process; it requires a more systematic approach to data collection and reporting. Of importance, all four practices offer a shared opportunity for teachers to learn with and from one another.

Yet additional problems with categorization arose as our search continued. For example, as Zeichner and Noffke (2001) noted, much of the literature is “fugitive” (p. 313), especially the sort falling within the teacher research genre and some forms of teacher study groups. On the whole, it is apparent that few teacher inquiries appear in print, and those that do often tend to be filtered through and find place in projects involving university faculty. Such filtering affects what gets reported and how it is reported.

Determining how best to organize and present our review proved difficult. For the sake of clarity and manageability, we have split it into two sections, each representing a grouping or family of teacher inquiry, as described above: practitioner research and study groups. We have organized each of these sections around one primary inquiry practice, although others are mentioned. The section on practitioner research gives priority to action research; the section on study groups emphasizes lesson study. Both are prominent forms of teacher inquiry worldwide.

Each section includes several subsections, each of which addresses a set of issues related to how inquiry practices are undertaken and understood, what is reportedly being done and how it is being done. The aim is to open up the practices and reveal some of their variation. Hence the subsections attend to different aspects of what

might be thought of as an operational definition of being a student of teaching, as opposed to the stipulative definition drawn from Dewey earlier in this chapter. The issues and patterns evident in the literature help set what it is to be a student of teaching. Subsections include (a) study ownership (who reportedly sets the aims of inquiry and what masters inquiry serves, including what place is given to specific teacher interests and concerns); (b) relations, including collaboration, team size and organization (how many persons are involved in inquiry, who they are, how involvement is structured, and what working relationships are generally most valued); (c) context, including sponsorship and support (sponsoring or initiating individual or institution or agency, governmental policies, and resource issues including allocation of teacher time); (d) types of data and forms of reporting (what counts as data in inquiry reports and issues of dissemination of results); (e) duration and impact (study length and claims of worth).

Practitioner Research: Teacher Research, S-STEP, and Action Research

In various forms, practitioner research has found a place across much of the world, sometimes with government funding and often with university faculty to support teachers. In this section, our focus is on three of the genres identified by Cochran-Smith and Lytle (2009): teacher research, S-STEP, and action research, the later serving as the organizing thread.

Teacher Research

Sometimes used as a catch-all term for all forms of teacher inquiry, the term is applied more narrowly by Cochran-Smith and Lytle (2009) to denote, “inquiries of K-12 teachers and prospective teachers, often in collaboration with university-based colleagues and other educators” (p. 20). As a form of professional development (Rust, 2009), “Teacher researchers work in inquiry communities to examine their own assumptions, develop local knowledge by posing questions and gathering data, and—in many versions of teacher research—work for social justice by using inquiry to ensure educational opportunity” (Cochran-Smith & Lytle, p. 20).

S-STEP

Following the founding of the S-STEP Special Interest Group of the American Education Research Association in 1992, self-study has developed into a worldwide research interest. Hamilton and Pinnegar (1998) described self-study as, “the study of one’s self, one’s actions, one’s ideas” (p. 236). The purpose of self-study is to research, “practice in order to better understand: oneself; teaching; learning; and,

the development of knowledge about [oneself, teaching, and learning]” (Loughran, 2004, p. 9).

[Self-study offers] both an invitation and a challenge for teachers and teacher educators. The invitation involves using self-study to better understand one’s own practice and, from [this understanding] to influence the very nature of teaching and teacher education ... [The intent] is [to conduct research that] matters and ... is inevitably directly applicable [to practice]. (Loughran, 2004, pp. 30, 31)

Action Research

Coming into education in the early 1950s (Corey, 1953) and evolving over time (Carr & Kemmis, 1986), action research holds a prominent place in educational inquiry. The dominate form of practitioner research in our review, action research, “aims at changing three things: practitioners’ *practices*, their *understandings* of their practices, and the *conditions* in which they practise” (Kemmis, 2009, p. 463, emphasis in original). A positive effect on student learning is an increasing expectation. Generally action research is understood to involve cycles of identifying and refining problems, generating hypotheses, and gathering and testing data. Research cycles may be driven by curiosity or by the desire to extend individual or collective strengths. As noted previously, each of the following subsections explores an aspect of practitioner research in relationship to actual practice.

Study Ownership

Drawing on findings from a UK study of four London secondary schools, Hargreaves (2013) located a continuum of study ownership as stressing teacher, school, or national aims. We begin with national aims. Noting evidence from 23 countries, Bubb and Earley (2013) argued that overall world-wide professional development has not met the developmental needs of teachers, and that it needs to be “personalised” (p. 344). A central reason supporting this conclusion is that on the whole teachers have limited formal control over the direction and purpose of their own learning; increasingly, national priorities are gaining prominence: “as an international press toward accountability increases, the temptation to impose top-down initiatives to improve student outcomes becomes correspondingly more intense” (Butler & Schnellert, 2012, p. 1217). In her study, Hargreaves identified a cluster of negative influences for teachers that flow from limited study ownership, where the aim and focus of teacher research are externally set. She concluded that programmes, “associated with meeting school or national rather than personal needs seemed less useful to teachers, especially because the national ... agenda had been focusing continually on nationally assessed initiatives, encouraging teachers to dissociate themselves from taking responsibility for their [continuing professional development]” (p. 335). Teachers in this study “resented” compulsion (p. 335); desiring greater control over their own professional development, they wanted a “say” in determining the topics to be studied.

In research focused on school ownership of inquiry, Butler and Schnellert (2012) studied a collaborative inquiry project that falls midway on Hargreaves (2013) continuum. Strongly supportive of inquiry-based professional development and distributed leadership, participating district leaders noted a convergence of school goals and proposed an emphasis on issues related to “struggling readers” (p. 1209). The case study involved 15 teachers and three literacy leaders from three schools that were, “most actively engaged in the ... project” (p. 1209). Among multiple purposes, the study focused on how participants, “worked with others to improve literacy outcomes for students.” While the emphasis for teacher inquiry was set by the school district, it was directly related to the teachers’ instructional responsibilities and apparently resonated with teachers who, on the whole, “were highly motivated to revise practices when they observed lower-than-desired student performance related to valued goals” (p. 1216). Teachers’ involvement in the study was supported by a range of resources, including provision of substitute teachers to enable work-embedded meetings with opportunities to work with like-minded colleagues and friends. Nevertheless, the authors noted there was, “troubling ... variability in the depth and scope of participants’ engagement in inquiry” (pp. 1216–17).

The teacher ownership end of the continuum is illustrated by a study of the Master Teacher Program (MTP), a 3-year professional development programme supporting teacher research in Catholic schools in Orlando, Florida (Roberts, Crawford, & Hickman, 2010).

[T]he teacher research project followed a continuum in which participants began by generating research questions, which eventually culminated in a teacher research project revolving around their own practice. The conceptual framework was intentionally incremental and recursive, so that self-study led to inquiry, which then informed teacher research, in turn, triggering more inquiry and self-study. (p. 262)

Participation in the MTP was strictly voluntary, yet reportedly highly successful, an outcome mirrored in a study of a school associated with a university/school partnership and the National Network of Educational Renewal in the U.S. (Gilles, Wilson, & Elias, 2010). Even though involvement was voluntary and weekly meetings were held outside of the school day, the aspects of strong and shared leadership, shared vision, responsiveness to teacher concerns, and perceived value of the teacher studies resulted in continuous although rotating participation of 40 % of the faculty. Moreover, those who did not participate were “positive about the opportunity,” and virtually all of the faculty attended the year end “sharing session” when study results were reported (pp. 101, 99). The tension between mandated teacher programme involvement, generally by building administrators, and voluntary participation is aptly described by Berger, Boles, and Troen (2005) as a “paradox”: “it must be mandated; it can’t be mandated” (p. 100).

Collaboration, Team Size and Organization

Across the literature on practitioner research, collaboration is assumed to be of high value. Yet conceptions of collaboration vary dramatically (Kennedy, 2011). Collaboration is widely thought of as simply a matter of teachers, “discussing and

observing the acts of others,” but it is also considered as, “about acting together” (Honinigh & Hooze, 2014, p. 80). The latter view asserts that high degrees of interdependence are central to collaboration and key to project success (Meirink, Imants, Meijer, & Verloop, 2010). Further, as Honinigh and Hooze noted, “Although many discourses on teacher collaboration stress consensus, shared vision and goals, teacher collaboration can also be seen as a ‘contested terrain’” (p. 80) involving sharp disagreements over goals and power. Moreover, often, “collaboration is approached not as a valuable end in itself, but as a tool for education improvement ... a technology for improving teaching and learning within conventional definitions of schooling” (p. 80). As a technology in service to externally set goals, collaboration, like collegiality, may feel “contrived” (Hargreaves, 1994) and alienating.

Conclusions drawn from a study of a six-person inquiry group (Levine & Marcus, 2010) helpfully orient the discussion that follows. Levine and Marcus argued that different forms of collaboration create very different opportunities for teachers to learn (p. 396) and that as a result careful attention must be directed both to the focus of teacher inquiry (what is studied) and to the structure of research activities (how the study is organized), especially how participant relationships are formed and supported. A general principle offered is that groups need to be cohesive, yet responsive to changing circumstances: “Ways of working together that once proved useful may become comfortable rather than productive in addressing emerging needs” (p. 396).

Team size is an important consideration for relationship building since groups may be too small to accomplish a desired aim or become too large to be functional: “A middle-school participant said her group had gone from a membership of 8–19, making it ‘much more difficult to have serious conversations about student work or our assignments or anything else’” (Wood, 2007, p. 721; see also Cassidy et al., 2008, pp. 230–31). Furthermore, while collaboration necessitates relationship, much practitioner research is conducted by individual teachers. How much is impossible to know. An impressive number of individual practitioner research studies that grew out of graduate study requirements have found their way into print (e.g., Cornelissen, van Swet, Beijaard, & Bergen, 2011). Studies of this kind generally do little to challenge established institutional norms of teacher individualism and isolation but may have a profound effect on teachers’ conceptions of research and of themselves as students of teaching.

Building collaborative relationships among teachers was an aim in several studies that involved teams of educators of various sizes, ranging from quite small groups, like that studied by Levine and Marcus (2010), to large groups located in a single site. One study (Cutler et al., 2012) described collaboration efforts of two groups of early childhood educators linked by technology and shared interests but separated by hundreds of miles.

Various terms have been used to describe groups of teachers and ways they are organized for inquiry. For example, Limbrick, Buchanan, Goodwin and Schwarcz (2010) described the government-funded research efforts of 20 New Zealand teachers who were seeking to raise student writing scores, particularly those of Maori

students. Supported by the authors, the teachers organized in small “learning circles” across six schools, using Ministry of Education *English Writing Exemplars* to assess student writing and to improve their instruction. Data indicated, “a greater than expected shift ... in student achievement in writing in the participating schools” (p. 915). In addition to “learning circles,” other forms for organizing teachers represented in the literature included collaborative research teams (Gilles et al., 2010), teacher professional communities (TPC), professional learning communities (PLC), and communities of practice (CP)—terms about which there is considerable disagreement (see Enthoven & de Bruijn, 2010).

Over the past decade PLCs have been prominent in international educational discourse about school reform. Based on an extensive review of the literature, Stoll, Bolam, McMahon, Wallace, and Thomas (2006) characterized PLCs as including “shared values and vision,” “collective responsibility,” “reflective professional inquiry,” and “collaboration,” emphasizing that “group, as well as individual, learning is promoted” (pp. 226–227). Underscoring the importance of relationship quality to successful projects, the authors added three characteristics from their own research: “Mutual trust, respect and support among staff members, inclusiv[ity of] members ... and [a sense of] school-wide community rather than ... smaller groups of staff; and openness, networks and partnerships” (p. 227). Our review suggests significant inconsistency in the use of these terms as well as in how they are operationalized in practice.

Levine (2011) offered a useful distinction between TPCs and PLCs, noting that PLCs, “do not seem to develop naturally,” that principals usually create them and for their purposes (p. 33). In contrast, TPCs represent a “more evolutionary, teacher-led process of change” (p. 44). Noting that, “professional learning communities can be seen as an intervention to break with a problematic past” (p. 43), Levine suggested, in contrast, that TPCs build upon and extend the strengths that already exist in a faculty, particularly tapping the experience and wisdom of veteran teachers. TPCs represent an, “evolutionary approach to developing professional community” (pp. 43–44), not a revolutionary, forced approach that may generate resentment, particularly among veterans. Thus it appears that teacher inquiry groups are perhaps more likely to find a place in TPCs than in PLCs and are most likely to support meaningful teacher research in this context. The Finnish approach to building community in schools appears quite close to the intent of TPCs, while developments in England appear more in line with the PLC model, which is, “geared to achieving externally determined performance targets rather than working towards achieving wider social, moral and intellectual goals or addressing concerns identified by schools” (Webb, Vulliamy, Sarja, Hämäläinen, & Poikonen, 2009, p. 419). Both models increase teachers’ work, but the Finnish model, by providing, “greater opportunities to identify school limitations and to determine creative ways forward” (p. 420), may be more consistent with building and sustaining teacher commitment to inquiry over time.

Sponsorship and Support

In varying degrees and at various levels, many policy makers have embraced practitioner research, as a form of professional development often tightly linked to student test score data. Although PLCs often differ in organization and emphasis, they have become “globally fashionable” (Webb et al., 2009, p. 405). For example, government policies in both Finland and England have led to, “collaborative planning [among teachers becoming] the norm” (p. 413), and in rather different forms PLCs have become an essential element of funded in-service education (see Koshy & Pascal, 2011). In Finland schools are required by law to engage in ongoing “self-evaluation” (p. 418). In the US the model of professional development supported by the Iowa State Department of Education has teachers create their own professional development plans, which must include “four major components: collecting and analyzing student data, goal setting and student learning, selecting content, and designing a process for professional development” (Tidwell, Wymore, Garza, Estrada, & Smith, 2011, p. 318). In Western Canada, Ministry of Education funding enables school districts to develop, “inquiry-based professional development” to improve student learning (Butler & Schnellert, 2012, p. 1209).

The availability of resources profoundly affects the sustainability of programmes emphasizing practitioner research, although individual teacher researchers may have few resource needs. For example, in a study of a Canadian community of inquiry focused on literacy, Butler and Schnellert (2012) concluded that the, “development of collaborative relationships within a networked structure is not automatic. Teachers required time, space, and opportunities to work with colleagues and leaders within and across schools” (p. 1215). Teacher time is consistently recognized as the most important and scarce of resources. Making time for teachers to engage in inquiry is expensive and extraordinarily difficult given established institutional arrangements and role expectations. As Newman and Mowbray (2012) noted from their study, “Time almost became akin to a member of the group as it dominated conversation, delayed meeting commencement, and was an issue that demanded [constant] attention—before thoughts could be focused on the work at hand” (p. 461). Lacking sufficient resources, even well planned projects supported by willing and able teachers are vulnerable. For example, in Newman and Mowbray’s study (2012) inquiry was not job embedded, and 7 of 12 programme participants withdrew. Collaborative inquiry is discouraged when time is not available to meet consistently, and the result may be similar to Cain and Harris’s (2013) study in which teacher projects became individual rather than shared inquiries—if they took place at all.

Building administrators are crucially important for gaining needed resources and, more often and more important, are critical sources of support for practitioner research (Thomas, Tiplady, & Wall, 2014). School building politics and lack of colleague support may discourage teacher research (White, 2011), while innovative, energetic, and trusted principals and dedicated and committed groups of teachers can do much to overcome limitations in resources, as Gilles and colleagues’ (2010) study of a Missouri partnership found. In this partnership, with university support a

Teaching Fellowship Program was developed across the district that included the school studied, enabling adjustments in teacher roles and responsibilities that facilitated and supported action research. To encourage teacher involvement in inquiry, for many years the principal and a building mentor taught a classroom research course open to “fellows” and teachers across the district, which enjoyed consistent and high teacher participation. The authors concluded, “Classroom research, nested within a university partnership, is a powerful agent for inducting teachers into the profession as well as continually renewing teachers” (p. 105).

University faculty, as noted, are much involved in practitioner research of each variety. Their support is particularly evident in partnerships like those established in Missouri (Gilles et al., 2010) and in the UK (Thomas et al., 2014) and in graduate programmes and classes, including courses taught on action research and S-STEP. In support of practitioner research, academics have assumed multiple roles: “as facilitators who support teachers’ action research, ... as critical friends [and] as consultants who contribute their skills and knowledge to the collaborative process” (Bevins & Price, 2014, p. 273). Tidwell et al. (2011) included a fourth role. Criticizing the concept of “critical friend” as being, “to some degree the traditional professional development model of an expert providing insight,” in their work with teachers these academics found themselves embedded in a deeper, more connected relationship: that of “collegial partner” (p. 319). Vozzo (2011) described his work with “teacher researchers” in similar terms:

The role of mentor was not adopted because it ... suggested a difference of authority between the mentor and mentee. The role of “professional friend” was more of a supportive role, where advice was given not from a position of authority but as a collaborative undertaking where we together investigated teaching practice. (p. 316)

The studies reviewed indicated varying degrees of university academic involvement and commitment to programme success, from the intimate involvement with teachers described by Tidwell and her colleagues and by Vozzo to situations in which academics kept their distance (see Butler & Schnellert, 2012, p. 1209).

Types of Data and Forms of Reporting

Rust (2009) asserted that, “teacher research describes a form of qualitative inquiry that draws on techniques that are generally already part of the instructional tool kit of most practitioners” (p. 1883). Data generated through qualitative methods certainly hold a prominent place in teacher research: lesson plans, student work, recorded interviews, student focus groups, teacher autobiographies, anecdotal records, and classroom observation notes are each included among the many qualitative data sources used. Often multiple sources of data are employed in single studies. For example, in a study of the use of cooperative learning in a physical education class, Casey (2013) drew data from “reflective journals, unit diaries,” and “student interviews and observations” (p. 147). In addition to other methods, Murphy, Bryant and Ingram (2014) engaged in “photograph documentation” (p. 31). Although often difficult to arrange, some studies employed peer observations (Banegas, Pavese, Valazquez, & Velez, 2013).

Although qualitative methods are prominent in practitioner research, quantitative data also have a place. For example, in a Canadian “collaborative inquiry” the teachers and literacy leaders “constructed and administered two coupled, curriculum-based assessments ... used to identify student needs (in the fall) and monitor outcomes (in the spring)” (Butler & Schnellert, 2012, 1210). Berger et al. (2005) described a school where practitioner research had been “fully integrated” and the studies conducted were, “highly quantitative and therefore focused on quantitatively measurable pieces of their teaching” (p. 99). In addition, Strambler and McKown (2013) reported a study that involved measures of student engagement. Within practitioner research, quantitative data have become more significant, along with the increasing prominence of national priorities and the growing power of various teacher accountability systems, as noted above.

Although standardized student achievement test scores are often delayed and often reveal little about individual teacher performance, they are frequently used to identify and frame problem areas that then become the focus of district and school-based programmes of teacher inquiry (see Schneider, Huss-Lederman, & Sherlock, 2012). On a related point, generally the studies we identified and reviewed for this chapter were concerned with addressing problems in teaching and student performance. It appears that only rarely are these inquiries driven by teacher curiosity or by a desire to build to strengths, to engage in a study that would help teachers do something even better than they already do well, a concern that drives many lesson study projects, as will shortly be noted, and a key indication that an individual is a student of teaching.

The study of Limbrick and colleagues (2010), noted above, illustrates a common linkage between standardized test score data and practitioner research. Low student test scores in writing set the problem. With university support and government funding, a 2-year teacher inquiry project involving teachers from six primary schools was planned, with the aim of increasing teacher knowledge of writing instruction and developing greater teacher skill in the use of a Ministry of Education assessment tool organized around 75 writing exemplars. Using the instrument, teachers analyzed student writing samples and then used the data as evidence of, “their teaching effectiveness, as well as students’ learning and teaching needs” (p. 919). These data were studied in teacher “professional learning circles,” where the teachers set goals and developed “action plans” for increasing student achievement. One outcome of the project was that, “Assessment became integral to and a precursor of writing instruction” (p. 910). Teachers’ knowledge of writing increased, as did their confidence in their ability to teach writing effectively. Student achievement also improved, “with students in years 4–6 making gains greater than expected for their normative cohort” (p. 918).

Reporting and disseminating the results of teacher inquiry have proven challenging, in part because teachers are not always interested in what their fellow teachers are doing or studying (see Berger et al., 2005). A. Lieberman (2009) sets the problem as one of making “teaching public” (p. 1879) in order to further build its knowledge base. Dissemination appears to be primarily informal. For example, results of the action research projects described by Strambler and McKown (2013) were

shared in an “informal ‘symposium’” (p. 99). Gilles et al. (2010) reported strong teacher involvement in “yearly sharing sessions” (p. 100). Blogging is also occasionally used as a form of sharing or reporting (Furman, Barton, & Muir, 2012), including descriptions of projects as they develop and evolve. More formal reporting events included thesis and dissertation defenses, occasional teacher publications, and articles written by academics, sometimes coauthored with participating teachers. Most of the literature we reviewed was authored by academics. Generally, sharing research results strengthens teacher commitment to both inquiry and teaching communities.

In addition to these challenges, reporting research raises a set of complex ethical issues that may discourage dissemination of results. Brown (2010), for example, argued that an, “uneasy relationship [exists] between IRBs and teachers” (p. 279). She was particularly troubled by the lack of attention to ethical issues in practitioner research, which complicates and may undermine the desire to “go public” with study findings. What if the conclusions of a study prove disappointing, embarrassing, or necessarily critical (see Smagorinsky & Augstine, 2006)? Since change inevitably involves tension and degrees of conflict, as Flores-Kastanis (2009) asserted, challenges related to resistance and contestation arise, which may fester (see Vetter, 2012). Finally, Brindley and Bowker (2013) raised the related issue of informed consent, including the importance of carefully attending to student rights.

Duration and Impact

Practitioner studies may be of very short duration, as when a teacher is concerned about the value and impact of a specific assignment or classroom method for student learning, or very long, varying according to levels of support and complexity of the research question or study aim. While several of the studies reviewed were year-long, multi-year studies were common in the literature. For example, Potari, Sakonidis, Chatzigoula, and Manaridis (2010) reported on a Greek study that ran for 4 years. The programme described by Gilles et al. (2010), in its 12th year, appeared to have been institutionalized and thriving.

Although teachers and sometimes university academics report that practitioner research and collaboration can be difficult and frustrating (Bevins & Price, 2014), claims for its value and impact are overwhelmingly positive, such that practitioner-researcher and teacher professional development are considered tightly linked (Kennedy, 2011). Zeichner (2003) summarized the claims for practitioner research:

It has been argued that teacher research as a form of professional development has often had a profound effect on those who had done it, in some cases transforming the classrooms and schools in which they work. It has also been concluded from analyses of researchers' self-reports across the world that teacher research helps teachers to become more flexible and more open to new ideas, to be more proactive and self-directed in relation to external authority, boosts teachers' self-esteem and confident levels, narrows the gap between teachers' aspirations and realizations, helps teachers develop an attitude and skills of self-analysis that are then applied to other aspects of their teaching, changes patterns of communication

among teachers leading to more collegial interaction, alters teacher talk about students from a focus on student problems to an emphasis on student resources and accomplishments, and helps teachers become more aware of their impact on students. (p. 303)

A decade since Zeichner's review, these claims remain prominent in the literature. Additional claims have emerged: (a) that programmatic practitioner research may help teachers to better cope with the insistent and increasing external press for continual professional development (Casey, 2012b; Orland-Barak, 2009); (b) that participation with teachers in practitioner research sometimes changes university-based researchers (Martinovic et al., 2012; Potari et al., 2010; Tidwell et al., 2011; Whitehead & Fitzgerald, 2007); (c) that practitioner research can broaden and change participants' teacher identities (Brooks, 2010; Goodnough, 2010; Martinovic et al., 2012; Musanti & Pence, 2010; Vetter, 2012); and (d) that student academic performance may rise (Butler & Schnellert, 2012; Limbrick et al., 2010; Schneider et al., 2012; Strambler & McKown, 2013).

Study Groups: Book Groups, Critical Friends Groups, Collegial Peer Coaching, and Lesson Study

As with practitioner research, study groups are found in various forms in countries around the world. Typically these modes of professional learning seek to create learning cultures (Watanabe, 2002) by bringing small groups of teachers together in collaborative experiences that involve planning, most often observation, and dialogue (Wong & Nicotera, 2003) to strengthen the teaching and learning experiences of teachers and students rather than to fix perceived problems, local or national. Of lesson study, our representative form of study group, Chokshi and Fernandez (2005) have said,

It creates a culture of examining and learning from practice, demands rigorous work, and encourages lifelong professional learning ... [L]esson study has the power to make teaching professionally rewarding, since it approaches teaching 'as intellectually demanding work rather than a set of skills to be implemented ... [It] also 'honors the importance of teaching as a profoundly complex and interesting endeavor.' (p. 677; see also Stigler & Hiebert, 1999)

In addition to lesson study, in this grouping or family we include book groups, critical friends groups, and collegial peer coaching. All share some common purposes and characteristics. Thus although the focus of this section is primarily lesson study, examples of the other three types of study groups are inserted in each subsection, where appropriate. As in the previous section, describing practitioner research, the subsections attend to different elements of what may be thought of as an operational definition for being a student of teaching. Here these elements are included as subsections of lesson study.

The decision to make lesson study, which appears to be morphing in response to deep cultural differences among practitioners across nations, a central organizing

thread may prove controversial. Certainly a good case could be made that the increasing prominence of peer coaching, as one of the most widely used forms of coaching in the US (Knight, 2007), justifies the central position. Our decision was strongly influenced by the characteristics of the student of teaching that inform this chapter. Although peer coaching is often teacher driven and frequently informal—one teacher seeking feedback and advice from another teacher about an aspect of practice—a large majority of the literature describes an expert-apprentice model. This model often involves formal programmes of coaching that are hierarchical and deficit driven: One teacher is given a formal charge to work with (coach) a less experienced or less skilled teacher to improve that teacher's practice (see Bean, Draper, Hall, Vandermolten, & Zigmond, 2010; Murray, Ma, & Mazur, 2009; Obara, 2010). This approach may rarely involve reflection and dialogue as means for *mutual* growth and development. Its most common use has been as support offered by senior teachers to newly qualified teachers (Wong & Nicotera, 2003). Additionally, peer coaching often focuses on the person of the teacher—his or her beliefs, experiences, and behaviors—and does not necessarily include “study” of the teaching and learning situation.

Book Groups

Interest-driven book groups or clubs have a long history in education, bringing teachers together for the pleasure of discussing an interesting novel or expanding their understanding of a topic or practice by reading and talking about teacher-selected professional publications (Burbank, Kauchak, & Bates, 2010). Book groups blend into critical friends groups when the focus shifts to endeavors like reading student work or viewing and then discussing student musical performances (Stanley, 2011).

Critical Friends Groups

Critical friends groups typically take one of three forms (Franzak, 2002; Vo & Nguyen, 2010): (a) a teacher brings to the group a sample of student work along with a guiding question (see also Silva, 2005); (b) two or more teachers engage in structured peer observation and meet to discuss teaching; or (c) a teacher presents a, “question about a specific dilemma” (Vo & Nguyen, p. 206).

Participants then ask probing questions and discuss the problem among themselves, while the presenter takes notes until the discussion is finished, at which point the presenter shares what he or she heard that was useful or important for his or her dilemma. (p. 206)

Across the three models, a major aim and challenge of critical friends groups is the “deprivatization” of teaching (Burke, Marx, & Berry, 2011, p. 37). While book

groups and critical friends groups are generally teacher initiated, sometimes they are university sponsored and supported (Bullough & Baugh, 2008; Luna et al., 2004; Masuda & Ebersole, 2012). The critical friends group model that involves peer observation may include coaches when formally organized (Burke et al., 2011).

Collegial Peer Coaching

Introduced by Joyce and Showers (1982) as a means of helping teachers learn and refine new teaching techniques, the practice of peer coaching has since been implemented with K-12 teachers as well as university faculty (Cox, 2012). Over time what counts as peer coaching has evolved into three general categories according to the strategies used: (a) technical coaching or team coaching, (b) collegial coaching, and (c) challenge coaching (Wong & Nicotera, 2003). We focus here on collegial peer coaching which, like lesson study (described below), is a professional learning experience that involves mutual consultation between or among teachers of equal status in order to improve practice (Murray et al., 2009). It is also referred to as *collegial*, *collaborative*, *reciprocal*, or *internal peer coaching*. Unlike other types of coaching, there is no mentor-protégé relationship.

Teachers typically work in pairs, but occasionally in small groups (Thurlings, Vermeulen, Bastiaens, & Stijnen, 2012), as they, “seek to improve existing teacher practices by refining techniques, developing collegiality, increasing professional dialogue, and ... reflect[ing] on their teaching” (Wong & Nicotera, 2003, p. 2). Cox (2012) explained, “Reciprocal peer coaching occurs where peers take turns voluntarily to coach each other, so that each has an opportunity to receive valuable coaching on their own agenda from an equally experienced and trusted peer” (p. 429). Similar to lesson study, although without joint research and development of a research lesson focused on student thinking, peer coaching has established components: (a) a preconference meeting to discuss the focus of the observation, as determined by the teacher being observed, including the management issue, instructional strategy, or method to be observed, (b) an in-class or video-taped observation where the observer could take notes, and (c) a post-observation meeting where both teachers discuss the lesson, specifically focused on the areas chosen by the observed teacher. This process is then reciprocated with the roles reversed.

Lesson Study

Lesson study (*jogyokenkyu* in Japanese) is a collaborative process of professional learning that was developed in Japan as a method of teacher-led professional development in a shared professional community. It has been widely implemented in primary schools throughout Japan since the nineteenth century, and more recently in lower secondary schools (Saito, 2012), resulting in a culture of inquiry where

teachers are considered and consider themselves to be researchers (Yoshida, 1999) who examine teaching and learning embedded in practice (Chokshi & Fernandez, 2005). Motivated to continuously and systematically improve the educational experiences of students, voluntary groups of teachers organize themselves into teams to generate, “new ideas about teaching and learning based upon a better understanding of student thinking” (Wang-Iverson & Yoshida, 2005, p. 5). Drawing on Japanese sources, Lewis, Perry, and Hurd (2009) described lesson study as a, “system of collaborative learning from live instruction” that involves cycles of, “investigation, planning, research lesson [*kenkyuu jugyuu*], and reflection—to create changes in teachers’ knowledge and beliefs, professional community, and teaching-learning resources” (p. 286). Thus by studying and improving lessons, teachers expand and enrich their understanding of teaching and learning (Hiebert & Morris, 2012). Since the release of the TIMMS Video Study (Stigler, Gonzales, Kawanaka, Knoll, & Serrano, 1999), which credited lesson study with the steady improvement of Japanese instruction and student learning, lesson study has spread rapidly to other countries in Asia (Chong & Kong, 2012; Lee, 2008; Saito, Harun, Kuboki, & Tachibana, 2006; Saito, Tsukui, & Tanaka, 2008; Tan, 2014), Europe (Dudley, 2012; Trapero, 2013; Ylonen & Norwich, 2013), North America (Fernandez, 2005; Lewis et al., 2009; Rock & Wilson, 2005; Sibbald, 2009) and elsewhere throughout the world (Doig & Groves, 2011; Kriewaldt, 2012; Ono & Ferreira, 2010).

Study Ownership

In contrast to practitioner research, study group inquiry worldwide generally falls within a tighter continuum of study ownership, concerned more often with teacher or school aims than national aims, although national goals have shaped and been shaped by team discussions in lesson study (Fernandez, 2005), and have led to attempts to implement lesson study (Ono & Ferreira, 2010; Saito & Tsukui, 2008) and peer coaching (Murray et al., 2009) broadly in order to enact reform. In Japan, for example, lesson study has long been used to implement nationwide curriculum changes (Lewis & Takahashi, 2013) as teachers share the results of their individual inquiries within schools, across districts, and more broadly through conferences and publications. Saito (2012) explained two types of lesson study implemented historically in Japan: “a top-down method, which disseminates the latest pedagogical information, and a grass-roots method, which reforms pedagogical practices by reviewing teaching and learning methods through teachers’ observations and discussions” (p. 778). Thus in addition to school-based lesson study, which is nearly universal in Japan, district-level lesson study, national school-based lesson study, and subject-matter-association-sponsored lesson study (forms of lesson study not well documented or understood outside Japan) together enable collaborative implementation of curriculum reforms that are generated either locally (within individual teams in individual schools) or nationally (within networks) (Lewis & Takahashi).

Classroom teachers participate in all of these types of lesson study, with some individuals actively involved in lesson study groups at all levels. At all levels the

central role of teachers is honored; teams of teachers choose their own research question and design lessons based on the context in which they teach. Thus classroom teachers share the responsibility to determine both the goals and practices in classrooms (Chokshi & Fernandez, 2005) and the development and improvement of national curriculum (Lewis & Takahashi, 2013). When enacted as intended, the implementation of lesson study in Japan and in countries throughout the world remains teacher led—framed by the perspectives of individual teachers in individual schools and classroom settings (Chokshi & Fernandez, 2004; Kriewaldt, 2012; Saito, 2012), even when the overarching goal of researchers or outside sponsors may be to enact a specific reform, a characteristic sometimes true of collegial peer coaching as well. Exceptions do occur, however. For example, the focus has been obscured and commandeered when the sponsoring individual or institution alters or omits one or more of the four critical features of lesson study as described by Lewis (2009):

Lesson study consists of cycles of instructional improvement in which teachers work together to: formulate goals for student learning and long-term development; collaboratively plan a ‘research lesson’ designed to bring to life these goals; conduct the lesson in a classroom, with one team member teaching and others gathering evidence on student learning and development; reflect on and discuss the evidence gathered during the lesson, using it to improve the lesson, the unit, and instruction more generally; and, if desired, teach, observe, and improve the lesson again in one or more additional classrooms. (p. 95)

Study ownership shifts when any of the critical features of the lesson study process are markedly modified. For example, in some instances outside Japan institutional or research goals have prompted sponsors to reshape the lesson study process (Dudley, 2012; Mutch-Jones, Puttick, & Minner, 2012), distinguishing it from lesson study experiences reported elsewhere in the literature. A study conducted by Mutch-Jones and her colleagues (2012) illustrates the importance of each of the features of lesson study to teacher learning. Rather than remaining true to the process of lesson study by allowing teams to determine their own theme or goal for their work, teams were asked to focus on two researcher-selected goals: “to build knowledge about the needs of students—especially those with learning disabilities—in inclusion science classes and to create accommodations to increase curricular access” (p. 1017). Although the teachers successfully increased their ability to generate accommodations for the students in their classrooms with learning disabilities, they did not improve their science content knowledge, as the researchers had anticipated, nor did they increase their understanding of the needs and challenges of students with learning disabilities.

Collaboration, Team Size and Organization

As noted, lesson study has been conducted at different levels in different contexts, ranging from large-scale initiatives involving school networks comprised of many small groups of teachers in many schools, as in England (Dudley, 2012), to small groups of teachers in a single school, as in studies located in Singapore and Hong

Kong (Cheng & Yee, 2011; Lee, 2008). At all levels teachers work in learning communities, collaboratively developing, teaching, observing, and analyzing research lessons that form the basis of their shared inquiry, defying the traditional teacher norms of individualism and conservatism (see J. Lieberman, 2009) characteristic of schools in many countries throughout the world. Differences in size and organization depend on the source of the overarching research goal—whether it is generated locally (classroom or school) or more broadly (district or nation).

Whatever the context, decisions about the specific learning goals and issues of pedagogy and content to be studied are ultimately controlled by the teachers, grounded in what they perceive as the realities of their classrooms and the needs of their students. For example, lesson study at Highlands Elementary School in San Mateo-Foster City School District, California, is guided yearly by a school-wide faculty-selected research theme, which provides a focus for the work of individual lesson study groups (sometimes referred to as *lesson planning teams*; see Wang-Iverson & Yoshida, 2005). At Highlands, these teams are comprised of, “three to six teachers from the same or adjacent grade levels” (Lewis, Perry, & Murata, 2006, p. 274) who determine the focus of their individual research lesson with the school theme in mind, but based on their own students’ needs and the team’s subject matter focus. Teams also enlist “knowledgeable others” from outside the school to “provide feedback on emerging ideas or lesson plans, participate in research lessons as data collectors or commentators, or teach public lessons at the school” (p. 275).

In contrast to lesson study, collegial peer coaching is generally conducted in dyads, most often in elementary schools within the same or adjacent grade levels or in secondary schools within the same content area. Recently organizers have avoided assigning partners (Jao, 2013; Jewett & MacPhee, 2012), a practice that has been condemned as “contrived collegiality” (Hargreaves & Dawe, 1990) enhancing administrative control rather than enabling collaborative relationships of openness, trust, and support among faculty, an element of effective professional development (Darling-Hammond et al., 2009).

Although school-based lesson study groups are generally comprised of four to six teachers, an approach referred to as *lesson study for the learning community* developed in Japan during the latter part of the 1990s in response to dramatic changes in the in-class behaviors of students (e.g., chatting, sleeping), which suggested that many Japanese children seemed to have lost their interest in learning (Sato, 2000, as cited in Saito, 2012). The goal of this lesson study approach has been to “create a community of discourse on lesson practices within schools” involving *all* of the teachers in the school, thus extending the planning, observation, and reflection cycle to the level of school reform (Saito & Tsukui, 2008).

Sponsorship and Support

In Japan, where lesson study is the major form of professional learning chosen by teachers and an integral component of school cultures, necessary support mechanisms are incorporated into the school structure, including basic organizational

routines for teacher learning, such as appropriated time to investigate, plan, teach, and observe research lessons and to reflect on teaching practices to promote student learning. Networks of expert subject-matter educators in schools, districts, and partnering universities have been formed as other supports, serving as “knowledgeable others” or discussants during lesson study (Lewis & Takahashi, 2013).

In countries where lesson study is novel and institutionalized mechanisms of support are reported as minimal or absent, sponsorship of some sort is asserted by researchers as essential and typically provided initially in a variety of ways by schools (Lewis, 2009; Tan, 2014), school districts (Lewis et al., 2006), ministries of education and other government agencies (Kriewaldt, 2012; Lee, 2008; Ono & Ferreira, 2010; Sarker Arani, 2006), universities (Sarker Arani, Shibata, & Matoba, 2007), university-school partnerships (Cheng & Yee, 2012; Rock & Wilson, 2005), researchers (Fernandez, 2005), and teacher improvement grants (Puchner & Taylor, 2006; Rock & Wilson, 2005; Yarema, 2010). Additionally, a wide variety of support materials—including handbooks, instructional resources (e.g., videos, articles, newsletters, and team tools), online courses, and institutes and workshops—are readily available online or through lesson study organizations.

Part of the challenge for many countries implementing lesson study is its novelty (Lewis et al., 2006). As with formalized practitioner research, engaging in lesson study requires that teachers and other school leaders (e.g., curriculum specialists, administrators) understand the essential features of the practice (Yarema, 2010). Thus many teachers and schools rely on local school districts and universities, which may be funded through granting agencies, to offer training programmes that may include support such as content expertise and process guidance. Funding is sometimes provided to hire substitute teachers to appropriate the time necessary to engage in lesson study, or to offer small stipends to lesson study participants. In some cases funding continues over time, but often other mechanisms, including structural or organizational modifications in schools, are required to enable teachers to collaborate with their colleagues. Collegial peer coaching requires similar support (Murray et al. 2009). Thus building administrators are crucially important in supporting both practitioner research and study groups.

Evidence shows that physical and structural challenges of providing support may not be the most difficult barriers to implementing lesson study. As with practitioner research, teachers must be supported in re-envisioning themselves as researchers and curriculum developers (Fernandez, Cannon, & Chokshi, 2003). Drawing on her own research and Lortie’s (1975) conclusions that the norms of individualism, conservatism, and presentism constrain US teachers from changing their practice, J. Lieberman (2009) suggested that lesson study requires teachers to re-invent professional norms and teacher identities: “[T]eachers ... are not technicians following a script that someone else imposed upon them. They are craftspeople ... guided by a set of self-determined principles” (pp. 96–97).

While the need for sponsorship and support is particularly critical at the outset, the availability of resources significantly affects the sustainability of school-based lesson study. Over time, as lesson study becomes more established, adaptations are often made to existing structures in order to support the process. The evolution of

lesson study at Highlands Elementary in San Mateo-Foster City School District in California (Lewis et al., 2006) offers an example of sponsorship and support that changed across 6 years. Initially an instructional improvement coordinator for a cluster of schools in the district, a half-time teacher at Highlands, and a half-time district mathematics coach worked together to implement lesson study, asking help from other district mathematics coaches. One of the volunteer teams included three other teachers from Highlands. “With funding for substitutes and stipends for after-school work provided by the district, the Highlands group conducted two lesson study cycles” (p. 274) during the first school year and presented their results to the faculty. The following school year most of the faculty decided to begin lesson study, with the remaining teachers joining the third year. By the end of its sixth year lesson study had, “begun to show signs of institutionalization.” The school no longer received funding from the district; instead, “by reducing the number of faculty meetings and handling routine faculty business in other ways,” the principal provided 2 h a month during the school day for lesson study.

In contrast to lesson study, reported cases of collegial peer coaching most often follow or occur simultaneously with and are directly connected to coaching courses taught by university faculty (Jewett & MacPhee, 2012); summer institutes held at higher education institutions and funded by national grants (Murray et al., 2009); district or partnership workshops sponsored by granting institutions, including government agencies (Bruce & Ross, 2008); or standards-based professional development (Jao, 2013). Thus participating dyads of teachers are often charged with tasks related to these courses, institutes, and workshops and withholding one another accountable for those tasks throughout their peer coaching experience, in some cases receiving stipends for their participation (Murray et al., 2009). Within the bounds of the sponsored experience, each teacher in the dyad selects the specific elements of teaching (e.g., classroom management, teacher-student interaction, content instruction) that are to be the focus of the process.

Types of Data and Forms of Reporting

Study groups seem to differ somewhat in the types of data collected, but more particularly in the way these data and results are reported, depending on the type of study group. For example, in collegial peer coaching and critical friends groups, the process is less formal than with lesson study. In these less formal groups, the teacher(s) acting as coach or critical friend take notes during the observation, and shares observations with the teacher being observed during the post-observation conference (Jao, 2013). Occasionally other sources of data, such as test scores, are also discussed (Jewett & MacPhee, 2012).

In contrast, quantitative and qualitative data are examined in lesson study, both in the planning and the reflection/discussion phases. Data are collected during the observation phase, as teachers who are planning and writing research lessons carefully explore the content and instructional materials, including learning goals, scope and sequence, textbooks, teacher manuals, manipulatives, existing research, and

ideas generated from previous lesson studies (Wang-Iverson & Yoshida, 2005). They also examine their students' prior knowledge, sometimes administering pretests (Lee, 2008; Tan, 2014), always discussing previous learning experiences and student understanding of related content. During this phase, teachers often consult university faculty and school-level heads of particular content areas (Cheng & Yee, 2011/2012), researchers (Rock & Wilson, 2005), district curriculum coaches or specialists (Lewis et al., 2006) and other advisors or "knowledgeable others" who have strong content, pedagogical, or curricular knowledge and can offer data or strategies to enhance planning. The inclusion of these advisors or coaches during this phase, as well as during post-lesson discussions, is reported to strengthen the work of the lesson study team (Chokshi & Fernandez, 2004), although Puchner and Taylor (2006) reported that the way an advisor interacts within the group can create conflict and result in frustration for teachers. For example, within one group of four elementary teachers in a small town in Illinois, the advisor was perceived as "interventionist" (p. 930). For these teachers, it was clear that when moving from isolation to potential collaboration, the, "autonomy of participants [should be] respected" and that, "the route to collaboration might be a bumpy one" (p. 931).

When lesson study is conducted as originally designed, members of the planning team who are not teaching, along with other observers (e.g., discussants, facilitators, administrators, department heads, advisors, visitors), carefully record their observations as narrative notes during the observation phase of lesson study (Lewis et al., 2009) in a method not unlike researchers recording field notes. Some lessons have also been video recorded and later viewed, at least in part, during the discussion phase of lesson study (Kriewaldt, 2012; Trapero, 2013). Because research lessons are group developed, the focus of data collection is not on the teacher or the quality of teaching, as common in teacher evaluation. Instead, observation notes describe student learning and the strategies and materials used to enhance it, rather than other issues such as classroom management (Saito, 2012).

Data sharing (reporting) and analysis occur during the discussion or colloquium following lesson implementation, as the teacher who taught the lesson and all of the observers reflect and discuss, "what students learned and what lesson elements supported learning or provided barriers" (Lewis et al., 2009). The team then determines whether to stop work on the research lesson or to redesign it, with a second member of the team teaching the revised version, repeating the cycle. Following post lesson discussion, lesson studies in Japan culminate in a written lesson study report, a practice documented in some cases of lesson study in other countries (Puchner & Taylor, 2006). Results of lesson studies are also presented at conferences and published as research bulletins (Kriewaldt, 2012); still others are published and sold (Fernandez & Yoshida, 2001).

Duration and Impact

The longevity of study groups appears to vary somewhat. In the literature, reciprocal peer coaching cycles include observation and discussion of two or more lessons per partner (Bruce & Ross, 2008; Jao, 2013; Murray et al., 2009; Thurlings et al.,

2012) over a period of a few weeks to 2 years. Duration of lesson study can be viewed in two ways: the length of a lesson study cycle or the overall time lesson study has been conducted at a given school. Lesson study cycles range from 2 weeks (Hubbard, 2007; Lewis et al., 2009) to several months (Lewis et al., 2006; Rock & Wilson, 2005). In schools where school-based lesson study has been sustained over several years, teams typically conduct two lesson studies per year (Lewis et al., 2006). In Japan, as noted, lesson study has long been institutionalized. Other countries tend to report mostly fledgling forays into this form of collaborative inquiry. However, long-term cases are showing signs of becoming institutionalized in some countries.

Teachers and university academics have reported both positive outcomes and challenges related to lesson study. Saito (2012) explained three major challenges that persist in Japan. First, teachers who are considered to be “politically strong” in their schools tend to dominate the process, while the other teachers are forced to conform to their ideas. Second, Japanese teachers tend to spend an inordinate amount of time on the planning phase and less time in discussions after lesson observations, leading teams to focus more on the, “flow of the lesson than ... on analyzing and interpreting the meaning of students’ experiences in a classroom” (p. 780). Finally, because lesson study is a process of seeking consistency, there is concern that the individuality and uniqueness of each teacher is suppressed, to the detriment of the individual needs of the students in their classrooms.

For teachers in countries where conducting lesson study is new, the challenges differ. Challenges might be classified as barriers inherent in the traditional structure of schools (e.g., allocation of time and space) or the emotional effort required to reinvent teachers’ professional norms and identities (Jewett & MacPhee, 2012; J. Lieberman, 2009). The concerns lie in finding the time, energy, and support to break traditional norms by developing a school culture that is conducive to openness and collaboration, where participants think critically (Cheng & Yee, 2012) as they seek to better understand content and best ways to teach it (Lewis et al., 2006), to investigate and innovate (Fernandez et al., 2003), to anticipate students’ thinking, and to value the central role of teachers in determining classroom goals and practices (Saito, 2012).

Despite the challenges associated with study groups, high levels of positive outcomes for teachers have been reported (see Zwart, Wubbels, Gergen, & Bolhuis, 2007). These outcomes differ somewhat according to the type of study group. For example, lesson study is reported to (a) shift teachers’ practice from individual to collegial activity, deprivatize their professional practice, and help them develop as collegiate professionals (McDonald, 2010; Puchner & Taylor, 2006); (b) enable sustained and purposeful dialogue about planning, teaching, and learning (Kriewaldt, 2012; Lee, 2008; Tan, 2014); (c) increase professional confidence (Puchner & Taylor, 2006; Rock & Wilson, 2005); (d) deepen teachers’ content knowledge (Chong & Kong, 2012; Fernandez, 2005; Lee, 2008; Saito, 2012); (e) develop valued personal qualities and dispositions (e.g., curiosity, skepticism, personal identity as a learner and a researcher, beliefs in the potential of changes in practice to improve student learning) (Lee, 2008; Lewis, 2009); and, (f) increase participants’

awareness of the causes of student learning difficulties (Cheng & Yee, 2012; Lee, 2008; Lewis et al., 2009). Claims for outcomes are somewhat more modest for collegial peer coaching, depending largely on the length of the collaboration and the source of the data, with teacher self-report measures indicating more positive outcomes. In addition to enhanced teacher self-efficacy and reciprocal relationships (Bruce & Ross, 2008; Jewett & MacPhee, 2012), positive outcomes included improved ability to (a) implement new and effective strategies (Bruce & Ross, 2008; Jao, 2013), (b) offer effective feedback to colleagues about teaching and learning (Thurlings et al., 2012), (c) reflect more deeply and gain greater insight into their own practice (Jao, 2013; Jewett & MacPhee, 2012). However, some research reported that the collaborative post-observation interactions were brief, lasting less than 15 min, and lacked analysis and depth (Murray et al., 2009).

Themes Across the Literature: Considering the Personal and Contextual Dimensions

This section presents a brief overview of the themes that emerged from our review. Note that each theme has a strong bearing upon and serves to link the personal and contextual dimensions of being a student of teaching. Two sets of themes are presented. The first set is organized to parallel the subsections used to structure the discussion of the research on practitioner research and study groups (i.e., study ownership; collaboration, team size and organization; sponsorship and support; types of data and forms of reporting; duration and impact), but cuts across groupings. The second set includes three themes that are not well developed in the reviewed literature but are generally present in some form, though often taken for granted: teacher identity, talk, and trust.

From Ownership to Impact

Study Ownership

Across the literature on both practitioner research and study groups, teacher ownership of the studies is consistently found to be a central element of successful programmes of inquiry. However, evidence reveals that social, political, and economic influences may usurp this ownership. For example, although lesson study has a long tradition of being teacher led, as it moves from Japan, where it is culturally embedded, to other parts of the world it shows signs of becoming more susceptible to external direction (Mutch-Jones et al., 2012). As Hargreaves (2013) argues, teachers often resent being forced to engage in studies of teaching that have no compelling personal value but appear to welcome opportunities to direct their own professional development. Across the studies, teachers have been found to be concerned about

student learning and generally committed to improving their practice, but vary widely in their interest in and commitment to systematic inquiry into teaching.

Collaboration, Team Size and Organization

Collaboration is reportedly of high value, although ways it is understood vary dramatically from study to study. When perceived as a “technology,” a means to an end rather than an end in itself, appears to weaken the educative potential of collaboration as an essential element of a culture that promotes teacher learning and development. Collegiality and collaboration seem to be generally understood as interchangeable concepts, although apparently distinct from cooperation. Rather little attention has been given to interdependence as an essential feature of collaboration or to the structural support that it requires (Meirink et al., 2010).

The vast majority of teacher studies appear to be conducted by individuals or supported by very small groups of teachers, which suggests that practitioner research tends to remain outside of the common understanding of teacher practice, particularly in secondary schools (Martinovic et al., 2012). In contrast, in Japan, lesson study is widely understood as part of teaching, not separate from it. Moreover, the demands on building administrators and on teachers committed to promoting and extending practitioner research increase the pressure of organizational and relational issues. Building administrators who desire to mandate participation in inquiry are unable to do so without potentially undermining its value. Ultimately, worthwhile inquiry requires teacher interest, goodwill, and commitment (Berger et al., 2005).

Sponsorship and Support

Mandated participation in PLCs appears to be closely linked to externally imposed reform initiatives rather than development of internal resources associated with teacher professional communities as it is in Finland; thus it may lead to teacher resistance. In contrast, while lesson study is culturally embedded in Japan and in a few other locations worldwide, practitioner research generally seems to be less securely established and more vulnerable, highly dependent for its continuance and impact on the enthusiastic and consistent support of building administrators, sometimes on university faculty, and on resources and institutional arrangements that are difficult to sustain, especially those that involve time away from direct classroom interaction with pupils. Given sufficient teacher interest and commitment, including possible enrollment in a graduate programme, individual teacher classroom studies are more likely to find a place in teaching.

Teacher time is the most valuable and rare of school resources, and inquiry is time consuming. In Japan, time is set aside during the school day for lesson study. Moreover, learning how to engage in lesson study is part of becoming and being a teacher. In contrast, the skills and understandings associated with the various genres of practitioner research must be taught; building administrators interested in and supportive of the value of teacher inquiry to improve practice cannot assume that teachers have the requisite skills and understandings. Frequently such knowledge is gained in graduate courses, although “classroom research” courses are occasionally also taught by school and district personnel. Despite increasing emphasis on teacher input in the design of inservice teacher education, teaching is widely understood across the world to involve interaction with pupils, not structured engagement with peers or involvement in research.

In many parts of the world, long established institutional traditions, organizational patterns, and scarce resources make teacher inquiry very difficult. A few studies were found where, despite very limited time set aside to engage in research, a very dedicated administrator and some very committed teachers succeeded in establishing a vibrant though generally small community of inquiry. When available, external funding has been initially crucial to programme development, as shown by the success with university partnering in Missouri (Gilles et al., 2010). Several studies were located that involved small groups of university faculty and teachers working together to pursue shared interests in educational practice, sometimes supported by graduate coursework offerings (Tidwell et al., 2011). Unlike lesson study, practitioner research is portrayed in the literature as highly diverse, often ad hoc. When organized it tends to be driven by administrators or university faculty. Unfortunately, when administrators, who have built and sustained a culture of inquiry, leave a building, that culture may be put in jeopardy.

Types of Data and Forms of Reporting

As noted, although practitioner research and study groups often involve gathering qualitative data, quantitative data are also employed, particularly data related to tested student performance. In all cases, data are useful to the extent they relate directly to questions that matter to teachers. Lesson study is primarily concerned with facilitating teachers’ understanding of student learning. In contrast, practitioner research, especially when driven by national aims, is frequently deficit driven: Someone somewhere insists something needs to be fixed. As noted, lesson study has established and layered systems for communicating results, including in the highly structured discussions following lesson implementation. Learning and impact are limited when practitioner research results are shared only informally, if they are shared at all. Sometimes results are shared formally in faculty meetings and in thesis defenses, for example. Published results are usually presented through the vision and filtered through the concerns of academic researchers, not teachers. The academic voice tends to dominate and may marginalize teacher voices.

Duration and Impact

Both study groups and practitioner research may be of long or short duration. Essential to relationship building, culture development, and identity formation, study duration, like active engagement, matters. Lesson study ends when the planned lesson has been fully interrogated, but additional cycles may then be initiated. The cycle is framed by the lesson. The duration of practitioner research depends on the complexity and driving ambition of the study and the commitment and interest of the participating educators; it may be of long or short duration. *Ambition* refers to intent: Does the study intend to raise all students' test scores in mathematics? Does it aim to improve a single essay assignment in English? Or as suggested here, is inquiry something teachers always do as part of teaching but seldom discuss?

Despite the challenges associated with practitioner research and study groups, claims for their value are, as noted, far reaching: greater knowledge and understanding of teaching, better practice, often greater student learning, more interdependency and collegiality among teachers, and changed identities for teachers and sometimes researchers, among other outcomes. Across the literature a strong claim is made that the practices of teacher study groups and practitioner research can and do change how teachers think about teaching and may change how they think about themselves as teachers. Consistency of support and duration appear essential to maintaining and furthering desired growth.

Teacher Identity, Trust, and Talk

With very few exceptions, the studies reviewed assume that participation in practitioner research and study groups changes teacher identities. In addition, they assume that teacher talk supported by trusting relations is central to teacher learning and school change. Taken together, the literature suggests that becoming and being a student of teaching—taking on this role and identity—is a matter of engaging with others in inquiry about teaching, talking about it, then having the courage to act on the results.

Teacher Identity

Several studies reviewed describe how teachers who study their teaching and participate in study groups change, being enabled, as Fernandez et al. (2003) noted, “to see themselves as researchers” (p. 173) and “to develop a disposition towards their practice that is grounded in a vision of teaching as a site for learning and of themselves as actively in charge of their ongoing learning process” (p. 182). Martinovic et al. (2012), for example, concluded from a mixed methods study that included data from an on-line survey, “many teachers who participated in action research projects

claimed their researcher identities and expressed interest in establishing a collaborative research community across schools and universities” (p. 399).

Such changes, as Vetter (2012) concluded, do not come easily and often involve a great deal of uncertainty and sometimes fear. Across the studies reviewed, issues of teacher participation loomed large. Even in highly successful programmes teacher turnover has often been high, and large percentages of teachers choose not to participate. Oppositional identities may form (Fisher & Rogan, 2012). Being compelled to join an inquiry group and “forced” to learn may have a thoroughly negative effect by shoring up established identities and thereby undermining potential programme value. As Musanti and Pence (2010) suggested, under such conditions patience is required: Learning to collaborate involves a “long process of learning” (p. 79) because, “[c]ollaboration challenges the existing school norms of individuality, privacy, autonomy, independent work, and distribution of power” (p. 86).

Teacher Trust

In their review of research on PLCs, noted above, Stoll et al. (2006) drew on their own research to underscore the importance of trust and respect to successful research communities. Across the literature, numerous studies mention, sometimes almost in passing, that successful teacher inquiry necessitates a deep level of trust among teachers and between teachers and administrators; trust, understood as, “the willingness ... to be vulnerable to each other” (Cornelissen et al., 2011, p. 149), is assumed to be an essential element of collaboration and a condition for teacher learning. Without trust risks are avoided, including those associated with opening one’s own practice for study (Baecher, Rorimer, & Smith, 2012). Sometimes linked to respect (Levine, 2011), trust enables feelings of safety (Cornelissen et al., p. 152) manifest when teachers, “[look] out for each other” and make and keep commitments to one another (Hargreaves, 2013, pp. 337, 340).

With trust teachers can pose hard questions. However, when moving from isolation to community with collaboration as the norm, “it is difficult to know whether others are truly supportive” (Puchner & Taylor, 2006, p. 930). Trust issues reach beyond teacher-teacher and teacher-administrator relationships to involve how teachers believe policy makers perceive them. Trust is thought to be key to Finnish teacher research successes: “Finnish teachers have long enjoyed a high level of trust at government, municipality and school level in their commitment, proficiency and capacity to fulfill curriculum aims (Webb et al., 2009, p. 417).

Teacher Talk

Opportunities to talk about teaching and student learning may occur in formal contexts, which are (a) structured by protocols useful for discussing student work (Wood, 2007), (b) focused in discussions in the “data Mondays” described by Levine and Marcus (2010), or (c) embedded in lesson study. Informal conversations

are ongoing in hallways and faculty lounges. Informal but productive talk builds trust, deepens commitment, strengthens relationships, and moves projects along. In explaining their study, Gilles et al. (2010) reported,

Teachers talked about their research questions, the actual process, how they collected and analyzed data, as well as the highs and lows of being teacher researchers. Teachers recognized that dialogue and discussion were important to their research and the school's renewal. (p. 98)

Teacher talk is widely assumed to be a primary means for encouraging teacher learning about teaching. But talk may also be unproductive and even harmful.

Horn and Little (2010) explored, "how conversational routines in two teacher work groups enhanced or limited opportunities for the in-depth examination of problems of practice and hence shaped opportunities for teacher learning" (p. 183). Systematic differences were found between the two groups that, "oriented teachers' collective attention toward or away from a deeper investigation of teaching" (p. 190). One group developed a routine that enabled them to create, "interactional space rich with opportunities to learn about teaching practice" (p. 193) that included normalizing problems, clarifying problems through questioning, and moving back and forth as they considered both specific events and general teaching principles. But the second group proved unable to agree on language and perspectives, and they struggled to establish a shared understanding of their task and failed to engage in, "principled talk about teaching" (p. 208). Although both groups were composed of, "energetic, competent, committed, thoughtful teachers who took their professional obligations seriously" (p. 211), one group opened rich opportunities for learning while the other did not.

Rather than locate reasons for these differences in individual teachers, the authors concluded that the differences resulted from, "each group's collective orientation and its contextual resources and constraints" (p. 211). Not all forms of teacher talk, even in lesson study (Saito, 2012), support teacher learning, and those that do, according to Horn and Little, appear to develop a, "shared language and frame of reference ... for interpreting problems of practice" and "norms and practices of group leaders" that sustain focus on "matters of practice" (p. 212). These findings imply that teachers who engage in shared practitioner research and study groups often need help learning how to talk productively (see Wood, 2007). For this and related issues, Bevins and Price (2014) argued that building successful collaborative inquiry requires both team and task support. Task support involves provision of time to meet and adjustments in workload, while team support includes developing needed skill sets, sharing workloads, and focusing careful attention on communication.

Bringing the Personal and Contextual Dimensions Together

Twenty-five years after he wrote the epigraph with which we began this chapter, Dewey returned to the question of teacher research. He expressed his desire that the, "movement [to involve teachers in research] will not cease until all active

class-room teachers, of whatever grade, are ... drawn in" (1929, p. 47). He continued by offering a reminder to his readers that in teaching,

[Practice] comes first and last; it is the beginning and the close: the beginning because it sets the problems which alone give investigations educational point and quality; the close, because practice alone can test, verify, modify and develop the conclusions [of investigation]. (pp. 33–34)

Dewey did not offer specific suggestions about how teachers should organize themselves for inquiry, only that they should become engaged, and he offered a model describing the nature of the work involved, work that could be done in any classroom or school by any teacher or group of teachers.

Individual teachers without any institutional support, even that of grade-level teammates, can and will continue to conduct more or less systematic inquiries into their teaching practice, including inquiry in pursuit of graduate degrees. Such persons may even think of themselves as students of teaching. Certainly teachers who have a lively understanding of what is involved in developing vocationally will understand themselves as professionals, persons who are responsible for and can thoughtfully direct their own learning, just as Stenhouse suggested. As noted throughout this chapter, undoubtedly many such persons unwittingly take to heart Dewey's challenge to think deeply and systematically about their work and then to act on the results of their inquiries. Such teachers are students of teaching.

As indicated throughout the chapter, being a student of teaching as conceived by Dewey is much easier in some schools and in some cultures than in others. Apparently this ideal is easier in Finland and in the US in Iowa, where support for teacher inquiry appears firmly embedded in policy. Established school practices of group study or practitioner research only find value as teachers choose to participate and then find personal meaning in their participation. As Kwakman (2003) concluded from a study of the factors that affect teachers' participation in professional learning activities, participation is, "mediated by personal characteristics" (p. 167).

Not all teachers choose participation, but not all programmes that claim to support inquiry appear to fully support teacher learning and development; some programmes, especially in practitioner research, appear often to be driven by interests far removed from those of direct concern to teachers, who desire to improve practice and make it more fulfilling. Such appears to be the case in many PLCs that are tightly linked to externally driven reform initiatives, long on expectation and short on resources and opportunities for teachers to direct their own learning. Since stories of failure are rarely published, it is impossible to tell how common these issues actually are.

Across much of the globe, urgency about educational reform is coupled with increasing frustration as reformers realize how difficult fundamental improvement is and how long it takes. Learning involves unlearning. Under intense pressure to reform, the danger is that change will come to be seen primarily as a matter of culture management rather than culture building; management discourses replace cultural discourses (Honingh & Hooge, 2014). Learning to collaborate takes considerable time (Musanti & Pence, 2010). Moreover, as Horn and Little (2010) argued, teachers need help learning how to effectively talk to one another about

complex teaching issues and concerns. Further, successful collaborations do not just happen; they require consistent and significant task and team support (Bevins & Price, 2014).

As earlier noted, when educational improvement is understood as a learning problem for teachers, administrators, and, as educators often add, policy makers and the public, and as a challenge to identity, wisdom suggests the need for patience. As is evident in the US with the results of the No Child Left Behind Act (2002), rushing headlong to embrace some reform package with the expectation of quick change is likely to do more harm than good to children and to their teachers. Under such conditions teacher caution and even resistance likely make good sense. Rushing about in pursuit of reform only increases the likelihood that genuinely promising practices will not be given time to mature and that as they are hijacked they will deepen what appears to be a spreading malaise among teachers and those who teach them (see Bullough, 2014). Ironically, engagement in meaningful shared inquiry into the practice of teaching may well be one of the most promising therapeutics (Casey, 2012b; Orland-Barak, 2009).

Our review supports the conclusion that there is tremendous potential power in practitioner research and teacher study groups to increase and enrich teacher learning and to build the sort of relationships that lead to sustainable improvement of teaching practice. However, our reading also suggests these results depend heavily on increased levels of respect and trust for teachers from policy makers, including more responsiveness to teacher concerns and issues, greater and sometimes different allocations of resources in many locations, and more attentiveness to the wider distribution of leadership. They also depend on teachers' willingness to invest in their own and one another's learning. As we have considered these issues, it is apparent they coalesce around questions of teacher learning and well-being.

Theorizing Change: People, Culture Building, and Self-Determination Theory

Practitioner research and study groups invite teachers to engage with others in practices that may and often do result in learning. The invitation is not just to do something but also to learn from the doing:

The difference between mere doing and learning ... is that learning—whatever form it takes—changes who we are by changing our ability to participate, to belong, to negotiate meaning. And this ability is configured socially with respect to practices, communities, and economies of meaning where it shapes our identities. (Wenger, 1998, p. 226)

To realize such learning, one must choose engagement, a choice made easy or difficult by how a workplace or community is structured and supported and how its boundaries are set and maintained. One must want to *become* and *be* a student of teaching and be welcomed into the practice in ways that strengthen and sustain

commitment to it. One takes on such an identity first in imagination, often through the embodied and embedded narratives of “old-timers” (Wenger, 1998, p. 156).

However, feeling unsupported, perhaps working under duress, as many teachers do, and then being compelled to engage in activities that challenge established identities without confidence in the results will likely undermine teacher learning and may weaken the desire to study then experiment with practice. As Roberts and colleagues (2010) suggested, there is a need for a shift from “‘doing’ to ‘being,’” from doing what researchers supposedly do to actually becoming researchers (p. 266). To this end, there is need for a shift away from the ideology of neoliberalism with its emphasis on reform as primarily a matter of management and control (Zeichner, 2010) toward an understanding of educational improvement as primarily a matter of learning and of culture building.

Dewey’s call for teachers to become students of teaching rests on the insight that humans are designed for learning and recognizing, that when they are prevented from growing their performance suffers. The large issue Dewey raised is not just a question of what effective teachers should do, but of what it means to be human and what it takes to flourish. We have been struck by the need for a set of guiding principles consistent with the conclusions drawn from the literature reviewed, which could serve to direct and focus the thinking of educators, administrators and policy makers on the complex challenges involved when seeking to develop organizational structures and institutional cultures that encourage teachers to become and be students of teaching. To this end, we think self-determination theory (SDT) holds promise.

Briefly, “SDT posits three basic psychological needs—autonomy, competence, and relatedness—and theorizes that fulfillment of these needs is essential for psychological growth and well-being, as well as the experiences of vitality and self-congruence” (Ryan & Deci, 2001, pp. 146–147). We argue that fulfilling these needs is essential to educational renewal and, further, that failing to attend to them undermines long-term teacher and institutional effectiveness. We also believe that of the many strategies designed to improve education, practitioner research and study groups hold the greatest promise for meeting these needs.

Of autonomy, Ryan and Deci (2001) demonstrated that, “only self-endorsed goals will enhance well-being, so pursuit of heteronomous goals (goals that are externally imposed), even when done efficaciously, will not” (p. 157). As we have noted, when distant national aims trump teacher and school aims, teachers need to recognize those aims as educationally legitimate and deserving of their investment if they are to engage and commit. This issue becomes more important as national priorities and standardized pupil testing continue what appears to be an inexorable march toward dominance over more local priorities, including in PLCs. Yet it appears that when successful cases have been made for what otherwise would be understood to be external aims and purposes for teacher inquiry, and when institutional support for inquiry is sufficient to avoid displacing other valued aims, teachers may and often do become willing participants. Cases need to be made and found compelling.

Of competence, Ryan and Deci (2001) wrote that a, “large body of research points clearly to the fact that feeling competent and confident with respect to valued goals is associated with enhanced well-being” (p. 156). Gaining competence in activities that are not valued or are even judged harmful undermines commitment and weakens engagement. Relationship underscores the value of talk: Greater relatedness is felt when people are, “understood, engaged in meaningful dialog, or [have] fun with others” (p. 155). To underscore this point Kwakman (2003) argued, “learning is not only individual but also social in nature” (p. 152). This insight is foundational to the success of both practitioner research and study groups. Teachers need to find confirmation of their value through the work they do.

How the three factors come together is complex, but evidence has suggested, “feeling a sense of autonomy and volition within close relationships is important for experiencing the relationships as satisfying. Thus, feeling autonomy and relatedness are not inherently antagonistic but rather are mutually supportive” (Deci & Ryan, 2012, p. 427). Satisfying the needs of autonomy, competence and relatedness, then, has the effect of building a sense of well-being, inspiring engagement, and, of particular importance, strengthening institutional commitment (Meyer & Maltin, 2010, p. 329; see also Baard, Deci, & Ryan, 2004, p. 2052). In addition, in contrast to situations of strong external control of the sort increasingly common across the educational landscape, “autonomous self-regulation is not depleting but is instead vitalizing. Vitality and autonomous self-regulation are thus activating, but it is a type of activation involving positive affect (Deci & Ryan, p. 427).

A major concern of the theory and, as noted, a significant challenge to administrators and teachers who seek to encourage inquiry is the nature and source of the motivation to participate. On this issue SDT is especially instructive: “[T]he most salient and important distinction within SDT is neither ‘intrinsic versus extrinsic motivation’ nor ‘internal versus external to the person,’ but is rather *autonomous versus controlled motivation*” (Deci & Ryan, 2012, p. 422). Autonomy is understood to be a matter of degree. The primary issue is choice, including the degree to which a person comes to internalize external requirements and his or her reasons for doing so. Under some conditions, when an individual is given a compelling rationale and recognizes the importance of being responsive to others’ needs, for example, external requirements may be autonomously embraced, not as a matter of guilt but of “integrated regulation” (Deci & Ryan, p. 422). Persons choose, “to do what they are expected to do. Moreover, contexts that satisfy the three intrinsic needs “facilitate fuller internalization, whereas [those] that thwart need satisfaction, such as using rewards and punishments or conditional regard, promote only introjection, [acting out of guilt or fear,] and are accompanied by indicators of ill-being” (p. 423).

On this view, to compel educators to join with others to inquire into practice by engaging in “controlled motivation” rather than strengthening “autonomous motivation” is likely unwise, promising only to undermine intended aims (Eyal & Roth, 2011, p. 262). Eventually, the result may be burnout. Relatedly, transactional rather than transformative principal leadership styles that rely on controlling practices, “can, at best, drive teachers to act out of extrinsic motivation [which predicts] shallow and rigid behaviors as opposed to autonomous motivation, which was found to

predict flexible and profound behaviors” (Eyal & Roth, p. 267). As Deci and Ryan (2012) further argue, school reform efforts that rely on various incentives to gain teacher compliance, including high-stakes testing, “tend to undermine autonomous motivation for teaching and learning” and thereby promote various types of negative behavior including system “gaming” (p. 431). Viewing the personal and contextual dimensions of practitioner research and study groups through these principles underscores, we believe, the importance of administrators being cautious when seeking to develop PLCs and perhaps suggests there is wisdom in considering TLCs as potential alternatives, despite their slow development. In addition, considering the three SDT needs suggests the importance of coming to understand collaboration as an aim, not merely a means to the achievement of other desired educational aims. Finally, in celebrating relationships and talk, SDT underscores how collaborative inquiry is wholly dependent on trust including between teachers and administrators.

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Chapter 24

Becoming Teacher: Exploring the Transition from Student to Teacher

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The focus of this chapter is the transition from student of teaching to teacher of students. This transition is perhaps the most ubiquitous journey that teachers undertake, and yet, when we delve betwixt and between the positions of student and teacher, schooling and education, teaching and learning, we uncover far more complexity in the concept of learning to be a teacher than might currently be considered. In this chapter we deliberately attempt to reframe the journey of becoming a teacher from a conception that the process is a linear, progressive movement from novice to expert teacher to a journey that explores untold variations in pathways; recognises multiple starting points; and contemplates ultimately what might be possible for any person intent on learning teaching. We draw insights from complexivist philosophy (Cilliers, 2010; Mason, 2008) and poststructural social theory (Deleuze & Guattari, 1980/1987; St. Pierre, 2011) to problematise the teacher-subject and consider the process of becoming a teacher in a more distributed, relational way. The significance of such an approach is expressed in terms of its ability to shift attention to the co-constitutive relatedness of practices and the social-cultural-material environments in which becoming a teacher takes place. We hope that such an approach provokes the reader to engage in a more generative way with personal, institutional and cultural complexities of learning to teach that are emerging in the twenty-first century. The intent is to generate ways of thinking beyond the conventional novice to expert explanations of becoming a teacher and explore instead the ‘ongoingness’ of developing a new professional self that is already implicated in the dynamic and evolving contexts of contemporary schooling.

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From the outset we acknowledge the possible limitations in realizing our aim. We write from multiple educational perspectives and contexts, as teacher educators situated in the New Zealand education system and as an educator and beginning teacher educator in the American education system. As educators, our orientations are shaped by our own experiences of teaching, working in university teacher education programmes, attending international conferences and studying our practice through critical inquiry, self-study of teaching and teacher education practices (S-STEP), narrative inquiry and theories of complexity. These have shaped how we engage with, perceive and express what becoming a teacher may mean. We also note our mediated access to other cultural, national, spiritual, economic and language perspectives on becoming a teacher. The volume of teacher education research is mainly from English speaking countries, with a predominant influence from America. This is an acknowledgement of the possible cultural ethnocentricity of much of the research and forms of teacher education if taken out of context. There are a number of voices and sources, including academics from non-English speaking countries, minority and indigenous populations, as well as teachers themselves, which become marginalized in the scholarship of teacher education and are under-represented in the journals from which we have drawn. At the same time, we understand that this international body of literature represents limited perspectives and experiences around becoming teacher. Just as our perspectives and experiences are not representative of all New Zealand and American educators, so too, we understand that there are multiplicities of experience and perspectives of becoming teacher in many contexts around the world.

In acknowledging these limitations, we signal that our aim for the chapter is not one linked to a representational epistemology of comprehensively reviewing the literature to provide a more accurate understanding of the reality of transitioning from student to teacher. Rather, focusing attention on the transition is linked to a quest to find more complex and creative ways of interacting with our reality, with which we can interact in yet more complex and creative ways (Osberg, Biesta, & Cilliers, 2008). From this perspective, any shift in focus implies there are no final solutions, only new ways to interact that lead to new emergent possibilities. This sort of project is anything but straightforward, particularly given the lack of clarity around the purposes and goals of teacher education and the rapidly diversifying ways that individuals can become teachers in different national contexts. But it is one in which we hope to 'expand the space of the possible' (Davis & Sumara, 1997). As urged by Webb (2013), "not-knowing is likely to produce something interesting" (p. 176). This work is the beginning of a dialogue around becoming teacher and an invitation to further complicate our understandings.

Research on Becoming *Teacher*

It is sometimes difficult to disentangle research on teaching from research about teacher education, since they often have overlapping concerns (for example, a shared focus on the nature of good teaching). While not overlooking the importance

of the distinction, our focus in this chapter is on the way in which individuals become teachers. The process of becoming a teacher has been extensively studied for the past 30 years (Cochran-Smith & Villegas, 2015) and there are a number of excellent reviews by scholars such as Peck and Tucker (1973), Zeichner (1983), Feiman-Nemser (1990), Doyle (1990), and Wanzare (2007). What is evident from surveying the available literature is that the choice of organizing themes and how findings are synthesised in order to provide useful insights, highlight redundant knowledge and avoid overly simplistic reductions becomes dependent on the theoretical position one adopts. For example, while much of the literature is situated within a socialization orientation (Grusec & Hastings, 2007; Scanlon, 2011; Zeichner & Gore, 1990), it is now increasingly common to find this orientation challenged and extended by other research traditions such as gender studies (Cushman, 2012; Younger, 2007), postmodernism (Ryan & Grieshaber, 2005; Stinson & Bullock, 2012), phenomenology (Atkinson, 2004; Greenwalt, 2008; Ovens & Tinning, 2009), neo-materialism (Mazzei, 2013), postcolonialism (Madden, 2015; Sanford, Williams, Hopper, & McGregor, 2012), queer theory (Benson, Smith, & Flanagan, 2014), figurational sociology (Keay, 2009; Velija, Capel, Katene, & Hayes, 2008), poststructuralism (Nolan & Walshaw, 2012), complexity (Cochran-Smith, Ell, Ludlow, Grudnoff, & Aitken, 2014; Fels, 2004), S-STEP (Loughran, Hamilton, LaBoskey, & Russell, 2004; Vanassche & Kelchtermans, 2015), Actor Network Theory (Fenwick, 2010; Mulcahy, 2011) and neo-Marxism (Kårhus, 2012; Malott, 2013) amongst others. The sheer volume of research and diversity of theoretical frameworks being used inevitably means that much of this work will be influenced by the values and subjectivity the author(s) brings to the task.

While being cautious about suggesting any stable or uniform findings in this collective literature, we do identify three possible themes that impact on the process of becoming a teacher. The first is that the socio-political context in which education systems are framed have changed over the past 50 years. Education reforms introduced in many western countries and based on neoliberal ideologies have shifted and redefined the work of teachers and teaching. These developing and seemingly pervasive ideological and political perspectives (e.g., the institutionalization of standards of professional practice and curriculum, demand for greater teacher and school accountability, singularity of focus on student outcomes on high-stakes testing without regard to the many circumstances which shape learning, etc.) have resulted in the loss of stability in identifying and retaining new teachers, strictly monitored transitions through the pathways towards becoming teacher, and more managed career paths as a teacher.

Secondly, and in tension with the first, becoming a teacher requires learning to deal with the multidimensional and complex nature of teaching. According to Morrison (2008), schools exhibit many of the characteristics of complex systems. For example, schools tend highly dynamic and unpredictable, organizations operating in unpredictable and changing external environments. Each lesson is composed of multiple elements that are highly interconnected and interdependent, making it impossible to isolate teaching and learning phenomena from the authentic ecology of the class activity (Wallian & Chang, 2013). The boundaries of the

teaching contexts are continually being re-negotiated through technology which adds layers of complexities between the interactions amongst students and between teachers and students, but also connects students and teachers to multiple individuals and contexts with which they might not otherwise have access. Perhaps most demanding of all is that teaching involves dynamic exchanges by which participants co-determine whether such interactions generate learning, conflict, exclusion, and/or further exchanges. Learning in this milieu also has a temporal dimension and is inscribed with a duration of what has been before and what will come in the future. Student teachers, who enter these already complex circumstances, are mindful of expectations and standards against which they are being judged by multiple others. Correa, Martínez-Arbelaiz and Aberasturi-Apraiz (2015) summarise these properties by suggesting that contemporary teaching conditions are volatile, uncertain, complex, and ambiguous. They state that:

... in a volatile world nothing is constant, not even information. It is uncertain because we cannot know what will happen tomorrow. It is complex because any domain consists of multiple connections, configurations, interpretations and meanings. And finally, it is an ambiguous world because as change rate increases, the time we need to assimilate new information also increases. (p. 67)

The third theme involves a critique of the metaphors and approaches to teacher development. Collectively, the literature indicates that learning to think and act in ways expected of teachers is a difficult process, particularly in the sense of being able to enact effective actions in situations that are dynamic, ever-changing and require complex professional decision making. Hagar and Hodkinson (2011) argue that many of the metaphors used to frame professional learning are not adequate to convey contemporary understandings about how people become teachers. They suggest professional learning has been framed as the transfer and application of acquired theory; as participation in highly contextualised communities of practice; or as adaption as teachers reconstruct and transform their professional knowledge. Consequently, there is a need to think beyond these, while also retaining and blending ideas that are compatible with a complexivist philosophy of learning.

With these three themes in mind, we suggest that the metaphor of ‘becoming’ provides a useful way for conceptualising the transition from student to teacher.

The Nature of *Becoming* Teacher

The concept of becoming as a metaphor for the process of professional learning and transition is explored in the work of scholars as diverse as Mead (1934), Schutz (1964), Bakhtin (1981), Deleuze (1994), Wenger (1998), and others. Such eclectic perspectives position the concept of becoming as an evolutionary, iterative process emerging from the way individuals become entangled within the networks of social relations and material settings that constitute their existential worlds. What is foregrounded is the idea that becoming a teacher is not a linear or gradual process, but

one filled with critical moments where individuals are provoked to reorganise, adapt, and enhance their systems of thinking. Such views challenge the idea that learning to teach can be reduced to the acquisition of knowledge and skills within formal tertiary educational environments that are then enacted in a school setting. This is not to deny that knowledge and skills are significant and critical to how teachers read classroom situations, strategize instructional actions, adapt to situational needs and effect outcomes (both intended and unintended). Rather, it recognises that professional performance is multidimensional and includes not only individual and collective actions situated in specific educational settings but also the performance of a professional self or teaching identity.

In this respect, we are drawn to Madden's (2015) metaphor that the concept of becoming teacher is like being on a hiking trail because it captures the myriad ways of negotiating and finding meaning with/in the spaces of teacher education. She writes:

Consider a 'hiking trail' formed by the relationships among communities of animals, trees, rocks, streams, and earth; trail markings; a specified distance and level of difficulty described on a website; and the promise of a spectacular view. Similarly, assumptions about education and teaching, associated purposes and goals, central themes, and pedagogical methods comprise a pedagogical pathway that shapes, but does not determine, the learning journey. Some elements of the pathway remain constant while others fluctuate, and the journey is continuously contextual, distinct, relational, and unforeseeable. Pedagogical pathways are commonly thought to lead to a transformative destination (Ahhh that spectacular view!) ... Moreover, like a hike rerouted due to weather, injury, blockage, or curiosity, pedagogy generates immeasurable, unpredictable, additional productions. (p. 2)

When we consider becoming teachers this metaphor reminds us that hiking trails create the possibility of a journey but don't determine it. No two people start with the same set of life experiences, or walk the same path. Comparing our own limited hiking expeditions we know that even if we walk a path side by side our experiences are not the same. What one finds easy, the other finds a challenge; when one rests for a moment, the other may charge on. Even though we reach the same point in the track and look together in similar directions, we will still see with our own unique perspective and focus on subtly different aspects. And even more likely, we will have made it to some end point and be joined by others who traversed different paths, had different experiences, and have different stories to share. Each is enabled by the path in different ways.

To better frame the ontological assumptions underpinning this idea, we will briefly outline four animating dynamics central to the concept of becoming. The first is the metaphorical notion that becoming is about lines and intensities of movement rather than points like origins, progressions and ends (Deleuze & Guattari, 1980/1987). Such lines, however, are not a successive transformation of identities since this would invite a focus on the teacher in some generalised, essentialised way. Rather, becoming a teacher involves a learning journey in which individuals move between different locations and are provoked to reconstruct and transform their dispositions, skills and understandings. As Sinner (2010) argues, the teacher is, "always in movement, continually generating new ways of thinking, feeling and

perceiving” as she moves through and negotiates multiple educational, social, and institutional contexts (p. 26). The teaching self is an ever changing phenomenon, never fully realised, always in the process of becoming other (Deleuze, 1994). In this sense we are, “always in the middle” (Deleuze & Guattari, p. 21) of the transition from student of teaching to teacher of students. It is a dynamic from which we can question normative understandings of teacher that posit static understandings of teacher identity and practice.

The second dynamic is that becomings are always immanent. The concept of immanence suggests that any entity, such as a teaching self, has no permanent ‘substance’ or ‘essence’, but is always in a process of formation. It signals the importance of relationality and connectivity in the emergent forms that become objects of study. As Marble (2012) argues, “*Becoming-teacher* no longer describes the acquisition of identities or replication of accepted sets of behaviours, but rather involves the creative responding to always-new situations and relationships that classrooms and schools make possible” (p. 22). Immanence contrasts sharply with the idea of transcendence, which seeks to rise above the messiness of everyday practice and identify the best practices, the solution, the silver bullet, the right way (Webb, 2013). Transcendence is a major purpose, and assumed goal, of curriculum and policy (Osberg & Biesta, 2008). Often the word and practices of ‘standardization’ are used to signal attempts at educational transcendence. Mercieca (2012) argued that performative discourses in education around standardization, “pin down the teacher’s identity, which is being formulated through policies, procedures, and practices” (p. 45). He suggested, “[i]n this way the ethical and political dimensions of the teacher are removed and replaced with policy, structures, and programmes, which diminish the role of the teacher, and make her subject to control and checking” (p. 44). From this perspective, he critiqued a static understanding of teacher that is seen,

as a unity or self-sufficient whole, as is often implied in policy texts and programmes that try to define the teacher in simplistic terms. Instead ... the teacher is seen as a ‘multiplicity’, as made up of many layers and having numerous connections ... allows for various possibilities. This shifts the emphasis from being a teacher to becoming(s)-teacher. (Mercieca, 2012, p. 43)

Foregrounding immanence rather than transcendence highlights the difference between thinking of the teacher as a transcendent, singular being and the teacher as an immanent multiplicity highly interconnected with the spaces in which they work – a becoming. A focus on the former assumes that the transition from student to teacher is a movement from novice to expert, where the expert is the final stage in a lineal process of professional development (Scanlon, 2011). Expertise in this sense is determined as fidelity to, and acquisition of, the widely accepted bodies of knowledge and skills that comply with state or professional regulations (Phelan et al., 2006; Marble, 2012). On the other hand, conceptualising the transition into teaching as becoming shifts attention to the relational and perpetual process through which individuals are always (re)constructing a professional self in relation to the situations in which they are entangled. In this sense, becoming a teacher involves

participation in learning cultures that operate like a open field of forces, rather than a closed guild or community of practices (Hagar & Hodkinson, 2011).

The third dynamic is that becomings emerge through their external connection(s) and function(s) rather than from relationships within themselves like an organism. In other words, teachers are not defined by the organic functioning of their internal biological systems, but from the assemblages they form with students, schools and education systems. Teachers are not some standardized entity, but rather, a component part of a unique, circumstantially bound, and un-reproducible assemblage that also links with students. As such, teacher identity and practice is fluid and never-completed (McKay, Carrington, & Iyer, 2014, p. 179). The idea of 'teacher' can only be understood through present experience, without abstraction towards past iterations or future ideals, because circumstances (school context, curriculum, et cetera) and assemblages (with students, colleagues, et cetera) cannot be reproduced for a static consistent teacher-self. In this sense, understanding teacher becomings means being sensitive to relationality, particularly in the sense that teaching practices, learning cultures and educational settings are deeply entangled and emerge from the connected, connecting and connectable nature of elements in any educational assemblage.

In clarifying the dynamic nature of assemblages, Bangou (2013) argues that the French term *agencement* is closer to the meaning that has been translated from Deleuze and Guattari as *assemblage*. In this sense, an assemblage should be understood as "the arrangement of various elements that were not necessarily meant to be put together in the first place but that, when arranged, somehow constitute a functioning whole (that is, they created new knowledge)" (p. 146). Bangou's argument illuminates the ecological and immanent nature of teaching practice and experience, which is unique to person and circumstance. This nuanced understanding of *agencement* recognises that there is no preconceived design isolated from circumstances. As such, "preservice teachers' knowledge and understanding might best be conceived of as a series of maps...these maps do not replicate knowledge; rather, they create and perform new knowledge, and by doing so they forge, enhance, and transform *agencements* of tomorrow" (p. 159).

The fourth dynamic is that becoming is non-representational. The complexivist critique of representations is concerned that they are produced in order to help us understand the world as it *really* is, and therefore tend to invoke a 'spatial epistemology' that depends on a correspondence between knowledge and reality (Osberg et al., 2008). In contrast, a non-representational position draws on a 'temporal epistemology' that implies that forms are always in a dynamic process of emerging, changing, becoming, and therefore can never represent a finished reality (St. Pierre, 2011). As Deleuze and Guattari (1980/1987) noted, "Becoming is certainly not imitating, or identifying with something; neither is it regressing-progressing; neither is it corresponding, ... [nor] producing ... Becoming is a verb with a consistency all its own" (p. 239). In this sense, becomings are a non-representational processes of movement, proximity and desire. From this perspective, Mercieca (2012) posited that desires (in a Deleuzian sense) for standardization that remove teachers from students must be understood in contrast to the teacher's desire to

connect with students through reciprocal teaching and learning. It is through the desire for students and the connections with students built through that desire that engenders the process of “becoming(s)”.

With this framework in place, we now turn to examine the multiple pathways and programmes that exist in the field of teacher education. Acknowledging the diversity serves the purpose of further interrupting simplistic and finite understandings of the transition from student of teaching to teacher of students. In doing so, we open up the possibility that multiple stories of teacher becomings may complicate our own understandings as we map the terrain of teacher education. As Deleuze and Guattari (1980/1987) wrote, “Writing has nothing to do with signifying. It has to do with surveying, mapping, even realms that are yet to come” (pp. 4–5).

The Architectures of Becoming Teacher

Becoming a teacher is marked by navigating multiple locations and spaces that constitute the landscape of education. The landscape an individual traverses in becoming a teacher is not an open territory, but space constituted by cultural-discursive, socio-political and material-economic dimensions that serve to structure the activities and practices taking place. Kemmis and Grootenboer (2008) describe such spaces as ‘practice architectures’ that, “... prefigure practices, enabling and constraining particular kinds of sayings, doings and relating among people within them, and in relation to others outside them” (p. 59). Framed in this way, educational contexts are not only the material architectural arrangements that enable and constrain teacher’ work, but also structure the discursive and relational conditions that shape how teachers perform pedagogical actions (Edwards-Groves, Brennan Kemmis, Hardy, & Ponte, 2010). At the same time, such configurations are not static, but evolve and change in response to those elements that govern their behaviour (for example, government policies) and actions of the participants. Through their self-organising activities, the individuals and groups who contribute to the collective whole are not simply passive recipients of their circumstances, but are enabled, constrained and affected by the interactions between colleagues and others (socio-political dimension), the dialogue about their work (cultural-discursive dimension), and physical resources and actions (material-economic dimension) which collectively constitute these configurations (Edwards-Groves et al., 2010; Hemmings, Kemmis, & Reupert, 2013).

The concept of a practice architecture that prefigures the ‘sayings, doings and relating’ involved in becoming a teacher is then a useful way of deconstructing the idea that the transition from student to teacher progresses down the same path. Regardless of the argument that individuals may travel this path in different ways, the fact is that there are different pathways that have been constructed within the landscape of becoming a teacher. These different pathways can be broadly divided into two general approaches to teacher education. The first approach, university-based, “college-recommending programmes”, require initial preparation to be

completed before taking full responsibility for a classroom. The second, “‘early entry’ or ‘direct entry’ programmes” require initial preparation to be, “completed by individuals while they are fully responsible for a classroom of students” (Zeichner, 2014, p. 559).

Of the university-based programmes, there are two main routes. One is through a concurrent 3- or 4-year Bachelor of Education (Teaching) degree. This is the most common model for teacher education in the world and is used in North and South America, Europe, Asia, Africa and Oceania. The programme is usually undertaken as full-time study during which students are exposed concurrently to learning experiences in the university classroom and on-site (in school classrooms). Typically concurrent programmes are delivered by university Colleges of Education with instruction in curriculum subjects (what to teach) along with educational and professional studies (how to teach). In most cases, students entering concurrent programmes are school leavers who have recently graduated from secondary school. It is a more common pathway for primary/elementary school teaching than for secondary school teaching although 4-year concurrent programmes are available for secondary students in some countries (Clarke, Lodge, & Shevlin, 2012; Draper & Sharp, 1999).

The second university-based route is a consecutive or graduate pathway that requires an undergraduate degree to have been completed. Candidates apply upon completion of their first degree or after several years in the workforce for a shorter 1 year (8 month) course (Casey & Childs, 2007). The length of the programme can be extended to a 2-year model as in Ireland (The Teaching Council, 2015). Internationally, consecutive accreditation programmes are more common for secondary school teachers than concurrent programmes. For example, in Canada (Bullock, 2011) and Ireland (Clarke et al., 2012) over 80 % of secondary school teacher candidates enroll in consecutive programmes. Prospective students must have an undergraduate degree with a major in a curriculum area suitable for teaching in the secondary school. The purpose of the postgraduate year is to develop content appropriate pedagogic skills and professional aptitude specifically required for teaching at the secondary school level (Draper & Sharp, 1999; Drudy, 2004). The major problem for intense consecutive programmes is to prepare teacher candidates to respond to the wide diversity of learners in their classrooms (Coelho, 2004; Dei, 2005).

At the primary level, where teachers are expected to be generalists and teach across the range of curriculum subjects the debate between core and periphery course content is contested. There is call for stronger literacy and numeracy fundamentals and more class hours in initial teacher education devoted to these subjects. At the same time, educators lament the limited time allocated to minor subjects such as the arts, physical education and character education and, in some cases, the near elimination of these subjects from the curriculum. The question then arises as to how much subject knowledge should be required or included in initial teacher education in light of a crowded timetable and what emphasis should be given to professional and educational courses.

One commonality of nearly all programmes is that school placements, clinical or field-based experiences are an integral component. This process of, “having novice beginners replicate the actions of experienced mentors underlies the near universal experience of student teaching” (Marble, 2012, p. 28). Incrementally more sophisticated classroom experiences, typically in a range of different schools, are supported through partnerships between university-based lecturers and classroom-based mentor teachers. This component of teacher education varies in duration, frequency and position in the programme.

The second approach to teacher education is “early-entry” programmes. They have been touted as a way for schools to fill hard-to-staff schools – either in rural areas or in lower socio-economic communities. Darling-Hammond (2010) connected the development of these alternative routes in America to shifts in policy:

Associated policy initiatives, encouraged by the federal government under No Child Left Behind, have stimulated alternative certification programs that often admit recruits before they have completed, or sometimes even begun, formal preparation for teaching. The search for strong alternative programs has, despite concerns, been important and necessary: Such programs were initially created to provide alternatives to 4-year undergraduate programs, which were, until fairly recently, the only route to certification in many states. This approach was inadequate for attracting recruits across life stages from various life paths. (Darling-Hammond, 2010, p. 37)

The most notable alternative route to licensure in the American context, has been Teach For America, launched in 1990. Since then the Teach for All network has spread to 35 countries. It was launched in the United Kingdom in 2003, China and India in 2009, Australia and Peru in 2010; Belgium and New Zealand in 2013. They recruit recent university/college graduates with a high grade point average to attend an intensive 5-week training programme. They are then placed in high-need classrooms or teach in rural or remote areas often serving indigenous or disadvantaged communities to serve a 2-year commitment to educational equity with the support of tutors from the respective university partnerships and mentors in schools. (See also Harding, 2012; Hramiak, 2014; Humphrey & Wechsler, 2007; Veltri, 2012).

However, advocates of deregulating teacher education, policy makers and those promoting a variety of non-profit or for-profit programmes do not expect their children to be taught in schools where alternative entry teachers are bound. Zeichner (2014) highlights the implications of having a two-tiered system:

Some propose building or maintaining a professional teaching force and a system of teacher education that prepares teachers for professional roles and teaching careers ... Others believe it is too costly to build and maintain a professional teaching force to teach everyone’s children and have advocated preparing teachers of ‘other people’s children’ as technicians to implement the teaching scripts with which they are provided, in the belief that the preparation these teachers receive and the subsequent scripting of instruction will lead to improvements in pupils’ standardised test scores. (pp. 551–552)

The rationale for introducing alternative programmes has been to address educational disadvantage and to recruit high-quality graduates who might not have otherwise considered teaching (Hramiak, 2014). Addressing difficult student behaviour was the rationale for introducing the Troops-to-Teachers (T3)

programme that educates former troops in line with Army protocol and training. The programme has also been adopted and implemented in British schools following concerns raised about student behaviour in state schools. The British Government argued that introducing former Army personnel into ‘troubled’ areas would reinstate order in school classrooms and restore a traditional value system they felt was lacking (Tipping, 2013). The use of very traditional teaching methods and subject oriented teaching is advocated:

Rather than confusing children by presenting them with vague, open-ended learning objectives, you teach an orderly syllabus where knowledge and skills are well defined and developed in logical progression. Rather than differentiating lessons for mixed-ability classes, you ensure that all pupils meet the same learning objectives. (Burkard, 2008, p. 11)

This example adds a different feature to the practice architecture. It draws into focus the transition from becoming-trooper to becoming-teacher; what it means to teach and to learn; and the multiple purposes of schooling and education. At present, there is no research on the impact that participation has on the development of the becoming-teacher (and former Army employee), however, there has been considerable inquiry with regards to the effectiveness of other alternatives. Zeichner and Schulte (2001) examined peer-reviewed literature on alternative routes to certification programmes in America and came to similar conclusions as several prior studies, which was, “that the research is of very limited value in helping us draw conclusions about the effectiveness of these programs” (p. 278). Zeichner and Schulte cited several issues with the studies like, “small sample sizes used in studies, the fact that mainly low level teaching skills were assessed when evaluating teacher performance, and the fact that those doing the assessments often had a stake in the programs being assessed” (p. 278). They added, “It would be very risky in these circumstances to use these studies to draw any conclusions about alternative teacher certification programs in general” (p. 279).

Alternative programmes have been criticised as providing “sink-or swim teaching” (Darling-Hammond, 2010, p. 37). Zeichner and Conklin (2005) argued that the consequence of unprepared teachers is experienced by students through lost learning while their teachers catch up to teachers who had their training prior to entering the classroom. The retention of teachers who enter via early-start programmes has been highlighted as a concern. Darling-Hammond found that, “the distribution of outcomes – in terms of teachers’ preparedness, effectiveness, and retention – is significantly more positive among preservice programs than programs that offer less preparation prior to entry” (p. 37). She continued that, “teachers’ preparation matters in two ways: It can both enhance initial effectiveness and increase the likelihood of staying on the job long enough to become more experienced and effective” (p. 37). This last point is echoed in the work of Shuls and Ritter (2013) who suggested:

As much as we want to ensure that every teacher entering the classroom is well-prepared, the reality is that much of any teacher’s learning will occur during their first few years in the classroom. Both traditionally and alternatively trained teachers can attest that they grew significantly at the beginning of their career as they made mistakes, learned from those mistakes, and collaborated with other teachers. (p. 32)

This exercise of mapping the possible landscape that becoming-teachers may traverse highlights the significance of thinking in terms of multiplicities and the importance of situating becoming within practices architectures that enable but don't determine, the journey one undertakes. However, there are more differences between candidates within any programme than there are differences between programmes. In the next section we consider the importance of biography and subjectivity on the becoming-teacher.

Biography and Subjectivity in Becoming Teacher

The complexivist turn we have employed allows us to decentre the individual and view it, not as a singular entity, but as a multiplicity that changes, "in nature as it expands its connections" (Deleuze, 1987, p. 8). Teachers are continually in a process of becoming as they live life, build relationships, and work with particular students, colleagues, and families in particular schools and communities. We use multiplicity to contrast against the Platonic concept that there is one true form. According to Tampio (2010):

Plato posited a universe of the One and the Multiple in which humans perceive inferior copies of perfect ideas. The doctrine reassures humanity that orderly patterns transcend the world of manifest difference. Modern philosophy's task, for Deleuze, is to break from the Platonic cast of mind and grasp multiplicities in their singularity. (p. 912)

A multiplicity, then, is understood not by its imperfect replication of perfect ideas or forms, but through its difference as its connections expand (Deleuze, 1988). For Deleuze, becoming involves individuating through difference. Rather than becoming teacher by means of imitation of an ideal teacher, one becomes teacher through action with and connection to particular students, families, and contexts. In this way, the teacher-subject, cannot be separated from that with which the teacher functions. Becoming teacher, by its very understanding, must exist in relationship to particularities of circumstance. Semetsky (2003) posited that this idea of becoming, "can be considered a distinctive feature of Deleuzian thought: becoming-animal, becoming-woman, becoming-world, becoming-child, always becoming other and always bordering on the element of minority" (p. 212). In this conception, it is impossible to become teacher in a simplistic, predictable, or reproducible manner.

The Need for Teacher Diversity

Echoing this understanding of becoming teacher, Darling-Hammond (2006a) identified necessary skills for twenty-first-century teachers; she wrote,

Rather than being subject to the pendulum swings of polarized teaching policies that rest on simplistic ideas of best practice ... teachers need to know how and when to use a range of

practices to accomplish their goals with different students in different contexts. And given the wide range of learning situations posed by contemporary students – who represent many distinct language, cultural, and learning approaches – teachers need a much deeper knowledge base about teaching for diverse learners than ever before ... (p. 5)

To this end, Darling-Hammond suggested teacher education programmes provide, “a tight coherence and integration among courses and between course-work and clinical work in schools that challenges traditional programme organizations, staffing, and modes of operation” (p. 7). Darling-Hammond, like Zeichner (2010, 2014) recognized the importance of contextually bound learning and experience through clinical learning, through which teachers make connections, in a Deleuzian sense, and are becoming teacher. The notion of the university as a laboratory for learning, which is able to rid knowledge and learning of subjectivity through carefully planned experiments and simplistic variables that can be isolated and controlled, is rendered irrelevant. There is no ideal teacher or teacher education, but rather teachers who must become in particular places, with particular people. In this sense, the university-based training must become part of the communities in which teachers serve.

Darling-Hammond (2006a) cautioned against the problem of the apprenticeship of observation that acknowledges the affect an individual’s life history or biography has on their development as a teacher. Lortie (1975) initially introduced the term to describe the socializing effect that life as a student, a keen observer of teachers, had on the development of the emerging teacher. Since then, the concept has been broadened to acknowledge that individuals enter teacher education programmes with varying backgrounds, motivations, experiences, expectations, and preparation levels for the process of learning to teach, most of which are tacit and not well examined (Akyeampong & Lewin, 2002; Calderhead & Robson, 1991; Flores & Day, 2006; Knowles, 1992; Power, 1981). In this sense, there is no common starting or ending point for those becoming a teacher, but we conceive that the many connections students have made and continue to make through experience (e.g., conceptions of teaching, values, spirituality, and cultural identities individuals have formed from their early experiences) will have an affect on how they learn and practice teaching (Bullock, 2011).

Precisely what affects teacher education produces will depend on these connections each student brings to learning. Teachers of students and students of teaching carry their experiences (connections) with them. We might conceptualize these experiences as biographical. Teacher education may evoke memories of the schooling they knew as a child, of people, activity and spaces that made them happy; or it may provoke a reappraisal of those experiences, extending or enhancing those early memories. The point is that these affects are produced, and they are real, but they are not produced by the programme acting alone. They are produced when the programme and the person come into contact, and people are ‘prepared’ in different ways by their life experiences, including their education. A teacher education programme, like any pedagogical encounter, is an assemblage of experiences, sensations, and affects.

Building for Diversity

Teachers are teaching increasing numbers of students who are, “culturally, economically, and linguistically different from themselves” (Cochran-Smith & Villegas, 2015, p. 11). Such a disparity between student and teacher demographics is not uncommon internationally. Different national bodies have noted the importance of increasing the diversity of teachers. For example, in Australia, a national inquiry (Hartsuyker, 2007) explicitly noted the need to increase the numbers of indigenous teachers as part of a national strategy to improve the diversity of teacher education. The report recognised the close relationship between education, schooling and the social and economic health of the nation and the need for teachers to meet professional standards with regard to teaching indigenous students and promoting understanding and respect between Australians. The Graduating Teacher Standards in New Zealand (New Zealand Teachers New Zealand Teachers Council, 2007) recognise equal status and rights of all learners and state that graduating teachers should be able to work effectively within bicultural contexts.

Racial/ethnic distributions of public school students across the United States have shifted in the decade between 2002 and 2012. Whites made up 59 % of the enrolments in elementary and secondary school in 2002 and 51 % in 2012. The figure is predicted to be 46 % by 2024 with increasing enrollments of Hispanic students and Asian/Pacific Islander students (National Centre for Educational Statistics, 2015). The teaching population in 2011 was, however, 84 % white and 84 % female (Feistritz, 2011). As Schmitz, Nourse, and Ross (2013) argued: “Despite the best intentions, white teachers do not have the experiences needed to understand” the backgrounds of minority students (p. 59).

The importance of background is highlighted in Moore’s (2008) longitudinal study that explored the impact of race and racial affiliation on the process of becoming teachers for three African American teacher education candidates. In this qualitative study Moore found that race and racial identity significantly influenced the decisions that pre-service teachers made en route to becoming teachers. More specifically, it influenced where they were prepared to work as teachers and the roles that they were prepared to fill within the school environment. But, most importantly, despite the shared racial affiliation, the three women derived different meanings from their experiences of being African American and, ultimately, made different decisions about their professional development and career goals that were commensurate with this experience.

Gomez, Black, and Allen (2007) described the educational journey of “Alison Smith”, a middle class, white, able-bodied, prospective secondary science student teacher who developed an understanding of herself as being a White person rather than an un-raced person in response to the teacher education courses she was enrolled in and the experiences she had on successive practicum placements. Although the journey was described in a linear fashion as moving from an initial naivety and ignorance to enlightenment and agency, considerable complexity was rehearsed. Through reflecting on key events that happened on placement and how they differed or were aligned with her university-based teacher education studies,

Alison realised that race was a social construction and ideologically privileged certain groups above others. The authors concluded that:

To be agents of change, ideas need to be percolated, circulated, and examined for their merit. When teacher educators provide the opportunity for these processes to occur over time and across occasions, prospective teachers can imagine new ways to behave that lie outside personal experiences and the hegemony of Whiteness. (p. 2128)

These understandings seem consistent with Darling-Hammond's (2006b) argument that effective teacher education programmes use specific and explicit strategies to assist students of teaching in reflecting on their own experiences with, and beliefs and assumptions about, learning and students. These programmes purposefully ask students of teaching to learn about individuals different from themselves. Others have reported that socioeconomic position can also affect student experience and their journey of becoming teachers. Personal experiences with poverty can motivate student teachers to accept the position of advocate and, ultimately, motivate them to adopt a social justice framework in their practice (Rivera Maulucci, 2013).

To increase the participation of underrepresented groups in teaching and to better serve students in schools, teacher education programmes in Canada have utilized equity or access policies that ask applicants to self-identify as members of particular access groups; institutions then employed procedures that allocate spaces to these populations such as people with disabilities, and racially or other minoritized peoples (Cook, 2001). Outreach activities that are geared to attract diverse applicants have also been employed such as information sessions in community centers. In America, programmes like the Future Teachers Academy (FTA) through Central Washington University use school and community partnerships to recruit "minority teacher candidates" (Schmitz et al., 2013, p. 60). Programmes like FTA are used to introduce teaching as a possible profession to diverse student populations while supporting students as they graduate high school. Through these connections, programmes encourage students to pursue teacher education as they enter postsecondary institutions. Programmes and initiatives such as these are designed to encourage a wide range of students and adults to consider a career in teaching.

Some alternative pathways to becoming teacher, like Teach First, have recognized the need for diversity in the teachers they recruit and train, as articulated in the mission statement: "To address educational disadvantage by transforming exceptional graduates into effective, inspirational teachers and leaders in all fields" (Blandford, 2008, p. 95). Although limited to high-achieving college graduates, their perspective on the value of diverse teachers leads to the targeted recruitment of college students of color and low socio-economic backgrounds to be teachers in under-served American schools.

In many traditional teacher education programmes, strong consideration is given to non-academic factors such as background experience and evidence of interest in or disposition toward teaching, in addition to academic requirements in the selection and recruitment of student teachers. Frequently, applicants are required to provide written statements, letters of reference, proof of relevant work or volunteer experiences, and participate in interview processes in order to attempt to determine readiness or propensity to teach (Casey & Childs, 2007). Recently, there has been a

movement toward recognition of non-classroom based experience in the admission process. It is believed that non-formal system experiences such as community service or leadership are as relevant to candidate suitability for initial teacher education as their academic transcripts. Programmes weight the academic and non-academic factors quite differently, depending upon institution admissions policies and programme goals (OECD, 2007).

The literature specifically pertaining to the impact of personal or affective factors on the development course of professional teacher identity is sparse (Frisen & Besley, 2013). Researchers have issued the call for additional empirical work to be undertaken in this area (Hamman, Gosselin, Romano, & Bunan, 2010; Korthagen, 2004), however, much of the scholarly contributions have been in the areas of teacher education programming, new teacher induction and mentoring processes.

For many pre-service teachers, entry into the teaching profession is motivated by a number of factors that can be of altruistic, internal (intrinsic) and external (extrinsic) reward. Altruistic motives referred to those related to the larger purpose and contribution that teachers make to improving social circumstances; intrinsic motives referred to the technical aspects of the job; and extrinsic to aspects of teaching not directly related to the job (i.e. job security, salaries and holidays). Jungert, Alm, and Thornberg (2014) found that Swedish pre-service teachers (n=333) primarily entered the teaching profession for altruistic and intrinsic reasons. The authors posited that these motives had a significant effect on their development as teachers. It is also possible that they were strongly influenced by the student's prior experiences both within and beyond the four walls of the classroom.

However, despite this interest in understanding more about the personal experiences of student teachers and the impact that biographies have on a student teacher's trajectory into the profession this understanding has not had a great deal of impact on recruitment initiatives. For example, there is still little known about more than 200,000 students who complete a teacher education programme each year in the US except that they are predominantly white and female (National Research Council, 2010). This masks a diversity of backgrounds, beliefs, personal identities and experiences. While it is certainly important to be aware of diversity issues and purposeful in the recruitment of teachers who represent multiple and diverse identities, we are mindful that teacher diversity in terms of race/ethnicity, language, gender, sexual-orientation and socio-economic status are inadequate by themselves. As Cochran-Smith and Dudley-Marling (2013) suggested, "it takes a particular set of circumstances in a particular cultural context to make particular human differences salient" (p. 280).

Cozart's (2009) letter to herself as a young black teacher speaks directly to this point. She was conditioned by the schooling system to perceive information uncritically and to believe without questioning what she read or heard in her classes – even at tertiary level. Deconstructing and reconstructing her position was a critical response that allowed her to question information and ways of knowing that information and enabled a re-explanation that aligned more closely with her alternative world view. Constructing new concepts that were congruent with alternative ways

of knowing and included knowledge brought forward from her own experiences and community made difference salient.

It behooves teacher educators and teacher education programmes to provide avenues for self-reflection and learning about difference (Darling-Hammond, 2006b); develop mindsets for adapting practice to the individual needs of students and communities (2006a); and immerse students of teaching in the communities they will serve in order to become responsive to the particular students and needs they will encounter (Darling-Hammond, 2006a, 2006b; Zeichner, 2010, 2014). Becoming teacher is an ongoing process that continues to change the very nature of what it means to be teacher as circumstances shift and new connections are made.

Dilemmas and Disequilibrium in Becoming Teachers

Negotiating the different spaces of becoming and being a teacher can be a notoriously difficult time (Allen, 2009; Flores & Day, 2006). The diversity of encounters and experiences can often provoke feelings of disequilibrium when new settings and expectations for performance clash with an individual's current understandings and abilities of teaching (Bianchini & Cazavos, 2007; Chubbuck, 2008; Farrell, 2003; Hargreaves & Jacka, 1995). Being in the teaching role is fraught with instructional, personal, and organizational challenges (Chubbuck, Clift, Allard, & Quinlan, 2001; Eldar, Nabel, Schechter, Tamor, & Mazin, 2003; Sabar, 2004), particularly when individuals attempt to put into action the ideas that they encounter in the different parts of their teacher education. In particular, the research literature has highlighted the difficulties of transferring the learning from initial teacher education to school settings (Beck, Kosnik, & Roswell, 2007; Luft & Roehrig, 2005; Massengill, Mahlios, & Barry, 2005). This has typically framed as either the theory-practice disconnect (e.g., Zeichner, 2010), where there is a sense of misalignment between the innovative pedagogy taught in universities and the more traditional methods seemingly entrenched in many schools (Allen; Ferguson-Patrick, 2011; McDonough, 2009; McElhone, Hebard, Scott, & Juel, 2009), or reality shock (Veenman, 1984), when individuals are confronted by the 'reality' of being immersed in actual classroom conditions with their multiple practical constraints, isolation and ever-present diversity of students (Bianchini & Cazavos; Chubbuck).¹

While not dismissing these findings, we want to provide an alternative way of reading the dilemmas, doubts, tensions and emotions individuals experience when either navigating the spaces of teacher education or when placed in a setting with different people, work cultures and material spaces. When viewed in linear and developmentalist terms, issues are conceptualised as a failure to learn and transfer the knowledge required to construct effective practice (Strom 2014). The alternative view is to conceptualise that different teaching-assemblages, and their diverse component parts, work together to produce different results in each setting. Becoming a

¹This paragraph has been summarised from the excellent review provided in Strom (2014).

teacher involves a complex, non-linear process of enacting practices learned in multiple educational locations.

One example of this was provided by Ovens and Tinning (2009) who analysed how a group of student teachers enacted reflection as they encountered different situations within their teacher education programme. Ovens and Tinning drew on the concept of discourse communities to challenge the idea that there was a simple binary between the school and university. They argued that there were multiple discursive regimes that students negotiated as part of their teacher education and that the nature of the discourse community in which the individual was situated enabled different forms of reflection to be enacted. The participants appeared to be critically reflective within those contexts constructed around the discourses of social justice and emancipation such as those in a “Sociocultural education” course. When the context was a different discursive formation, such as an assignment task, a different form of reflection was enabled. This was also revealed in the practicum context. Framed within the professional discourses of management and control, reflection in this context was enacted more as an ability to ‘think on your feet.’ Reflection, in this sense, was reflexively enacted as the students participated in the different contexts of their teacher education programme.

Prior learning is only one of many influences on how teaching becomes enacted. Teachers continue to negotiate meaning as they move into their new settings. Strom (2015) studied the ways that the pre-professional learning and experiences of a first-year teacher, Mauro (a pseudonym), moved across time and space into his new settings. The study was guided by the question, “How does a science teacher negotiate his preservice learning within his first-year teaching environment as he constructs his practice?” Using “assemblage” as an analytic construct – that is, examining the constituent parts of Mauro’s classes and the way they worked together – generated a nuanced view of the production of Mauro’s divergent teaching practices and a more complex understanding of the ways his preservice learning influenced them. Although the earth science and environmental science assemblages had some elements in common (e.g., Mauro himself, the school setting, and a common student demographic), these “came into composition” with each assemblage differently. In the earth science classes, freedom from district-wide testing, familiarity with the subject matter and curriculum, and relatively small classes worked well with the maturity of senior students to provide conditions that enabled Mauro to enact pedagogy informed by his preservice learning (such as problem-solving practices and experiential activities). Mauro was also able to build relationships with his senior students that facilitated their cooperation with the student-centered instructional practices he brought to teaching from his preservice programme. In contrast, the tested nature of environmental science, Mauro’s lack of familiarity with the curriculum, and larger class sizes, combined with the ninth grade students’ tendencies, created a classroom environment often characterized by student opposition and tense teacher–student interactions. Lacking the same level of student cooperation afforded by his senior students, Mauro made his teaching more rigid and teacher-led, echoing the patterns of traditional, transmission-based instruction his preservice programme sought to disrupt. While the academic discourse of

educators would point to Mauro being a victim of culture shock in the ninth grade class setting, we could argue that he is simply assembling himself as an adept becoming in a unique setting. His capacity to hold multiple becomings in his repertoire signifies his expanding experience. Correa et al. (2015) identify the tensions and dilemmas that five beginning teachers in Spain face in their first years in the profession. They used a narrative inquiry approach to delve into the lived experiences and construction of professional identity. In particular, they found that the teachers in their study faced two issues in becoming. Firstly, in the Spanish public school system, newly qualified teachers (NQTs) are placed on public school system' teacher lists and wait to be called in to substitute for more experienced teachers for a matter of days, weeks, months or even years. This period of job insecurity and transience, which can last years, keeps NQTs at the periphery of the community. They are positioned as agency-less or as teachers whose opinions do not have an impact on the functioning of the school. Furthermore they struggle to develop a personal teaching identity as they seek to comply with differing expectations and practices. Becoming teacher is reworked in order to interpret and interact within each new context.

The second issue is what Correa et al. refer to as 'postmodern reality shock'. Reality shock (Veenman, 1984) was initially coined to describe the perceived gap between notions of teaching and unrealistic optimism developed in teacher education programmes and the reality of the classroom. The shock suggested that teacher education was lacking and did not prepare candidates adequately for the reality of teaching. High attrition rates in the early years were attributed to deficiencies in preparation or the inability of new teachers to cope. However, Correa et al.'s study alludes to the reality of teaching having become problematic even for experienced teachers. Rather than being inadequate these NQTs find their,

university education relevant to their work as teachers, but they have little time to reflect on their experiences ... [They] need a space which serves as a bridge between pre-service education and working as teachers, a space where they can reflect and not only act. (p. 67)

This deconstruction of the concept of reality shock thus serves to further explicate the complexity of becoming teacher.

Teaching Becomings and Becoming Teacher- Final Thoughts

This chapter has argued that for understanding the transition from student to teacher, the metaphor of 'becoming' provides a productive way of shift attention to the co-constitutive relatedness of practices and the social-cultural-material environments in which becoming a teacher takes place. In suggesting that there is the pervasive provisionality to teacher identity and practices and by seeing the world as an open flux of possibilities, we hope we have provoked and disrupted readers' established common-sense patterns of thought. The aim here is not one linked to a representational epistemology of changing perspective to gain a more accurate understanding of reality, but about finding more complex and creative ways of interacting with our

reality, with which we can then use to interact in yet more complex and creative ways (Osberg et al., 2008). To do this, we argue that education programmes prescribe conceptual, semantic and material places – be they located in a university, a school, a classroom, a lecture theatre, a methods course or a subject area. Whether the individual is in an initial teacher education programme or has secured a position in a school, the conceptual and material architecture inscribes the established order and is intercalated into the individual's life, structuring and framing it. In this sense, formal education can be thought of metaphorically as a mechanism controlling the position of its participants within a pedagogical environment. When an individual engages with an education programme to become a teacher, it enables certain encounters and relationships, creates locations in space and time in which interaction in shared activity and work are possible, and engages students with a shared language in which a mutual understanding of professional teacher culture is possible.

In framing the transition from student to teacher like this, we suggest that the experiences of becoming teacher are multi-perspectival and complex. As such, while dominant plot lines around becoming teacher exist, multiple and diverse lived experiences emerge from these plot lines that complicate our understandings of the plot itself. When applied to our understandings of becoming teacher, we see the ways each individual navigates a dynamic educational terrain in which his or her own teaching identity is multi-dimensional and ever changing. We understand teacher in relationship to the multiplicities with which teacher functions, the social, material, political, and cultural constructions that configure any educational setting. We can think of these complex and multi-faceted assemblages in relationship to the function of making curriculum, of shaping learning and of producing subjectivities for thinking about education. As these assemblages are always changing in the life and experience of a teacher, the teacher, in turn, is continuously changing and shifting as a result of the teacher's relationships. The substantive understanding of teacher, or their expertise, is rendered unachievable and irrelevant because teachers must continually adapt to new and emerging experiences and conceptions of relationship, context, expertise, and self. It is for this reason that becoming connects with contemporary notions of continuous professional learning in which identity is not defined by status as student of teaching or teacher of students, but by the continuously unfolding relationships, contexts, and experiences with which the teacher exists in relationship.

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Chapter 25

Teacher Candidates as Researchers

Shawn Michael Bullock

Most teacher education programmes are at least tacitly built on what Schön (1983) called technical rationalism. This perspective is based on an epistemology of professional knowledge that assumes new practitioners are recipients of knowledge generated by others rather than active contributors to the development of their own knowledge about practice. That is not to suggest that teacher education programmes do not emphasize the role of experience in learning to teach; indeed one would be hard-pressed to find a university-based teacher education programme that does not prominently advertise how long teacher candidates¹ spend in classrooms during a practicum placement or field experience. It is important, however, to consider the role that such experiences are presumed to play. I would argue that most practicum experiences are positioned as the place where teacher candidates are socialized into the cultural routines and patterns of the teaching profession while trying to demonstrate their competence at performing tasks associated with teaching such as: planning and enacting lessons and units of study, managing students' behaviour, and assessing students' progress toward particular outcomes. Formal observations by university-based supervisors and associate/mentor teachers are designed to provide feedback on the candidates' abilities in the proverbial "field" and to ensure they are prepared for the rigors of a teaching career. Experience in a practicum teaching setting, then, is positioned as the place where one demonstrates

¹The nomenclature of teacher education can be confusing across contexts. I will use the following nomenclature in this chapter: University students enrolled in a teacher education programme for the purpose of becoming certified elementary or secondary (abbreviated K-12) teachers will be called *teacher candidates*. Professors and instructors who work on a continuing basis in university-based teacher education programmes will be called *teacher educators*. The part of a teacher education programme in which a teacher candidate is placed with a certified K-12 teacher for the purpose of gaining experience teaching in a school setting will be called a *practicum*. A certified K-12 teacher who supervises teacher candidates in this way will be called an *associate teacher*.

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competency and skill. Experience is also positioned as something that happens in the crucible of the practicum. University coursework is simply coursework: the place where theoretical, propositional knowledge of teaching is obtained.

The concept of putting theory into practice is so engrained in the ethos of professional education, including teacher education, that Clandinin and Connelly (1995) referred to it as a *sacred story*; so sacred in fact that the position of theory and practice seems rarely questioned in programme structures; few professional programmes seem to be designed in ways that reflect a deep unpacking of the complex interplay between theory and practice in learning to teach. Knowledge of teaching is implied to come from teacher educators and associate teachers. Teacher candidates are framed as recipients of a knowledge base. Coursework tends to contain a mixture of curriculum methods, educational psychology, legal and professional issues, and courses that might be broadly grouped together as educational studies. There are many good reasons to feature this sort of coursework in a teacher education programme, but scores of research studies have called to question the immediate impact coursework has on the development of teachers' professional knowledge. Darling-Hammond (2006) identified this challenge as one of *enactment* and labeled it as one of three major problems of learning to teach. Perhaps a part of the reason that teacher candidates find it difficult to both link ideas presented in coursework with experiences in their field placement is that, in many ways, the practicum has its own curriculum. So the issue is not one of transferring theory from context A (coursework) to context B (practicum). The issue is recognizing that both contexts have their own curricula and, as such, provide rich sets of experiences from which teacher candidates can learn. It is incredibly problematic to, even tacitly, frame one context as the place where experiences happen and one place as the context where theorizing happens.

Rather than adopt the rhetoric of *bridging the gap* between theory and practice, between coursework and the field, and between the K-12 system and the university, as many have, I will instead make the argument that we need to acknowledge that students of teaching are inherently co-existing in two different worlds. Teacher education programmes are, in fact, always two sets of programmes, with two contexts (the university and the K-12 system), two sets of curricula, two sets of teacher educators, and two sets of expectations. Heap (2007) invoked the Roman god Janus as a metaphor for thinking about teaching education. Janus is almost always depicted as having two faces, one looking left and one looking right, to signify his importance in beginnings and endings, as well as transitions. One important question in working with students of teaching is to consider the ways in which teacher educators might help teacher candidates make sense of the Janus-facing roles. While teacher candidates are often told that they are both students and new professionals, they are not often invited to consider what that dual role might mean and how they might make sense of their learning experiences within a teacher education programme. This chapter posits that helping teacher candidates to frame themselves as researchers is crucial to the development of their professional knowledge of teaching and learning. A research stance serves teacher candidates equally well in the context of the university and in the context of the K-12 practicum placement but,

perhaps even more importantly, serves them well in making sense of the complicated and sometimes competing messages they get between the two worlds of the programme by helping them to realize that, ultimately, they are the ones learning to teach from the sum total of experiences during their programme.

This chapter explores the possibilities associated with framing students of teaching as researchers: professionals who need to be provided with experiences to name, interpret, and analyze the development of knowledge gained through pedagogical experiences. One powerful way to encourage teacher candidates to develop authority over their own experiences (and hence a personal, practical, professional knowledge) is to engage them in one or more forms of teacher inquiry, including but not limited to action research and self-studies of their own experiences during practicum placements and during their teacher education programmes.

This chapter is divided into three sections that will develop the argument that a fundamental goal of teacher education programmes should be to encourage teacher candidates to develop a *research stance*. A researcher stance can help candidates make sense of the sometimes-competing worlds of the practicum and the on-campus course work and, most importantly, develop *authority* over their own experiences and, in so doing, learn how to learn from their experiences. The first part of the chapter examines some views about the nature of teachers' professional knowledge and how it develops. The tension between propositional and experiential ways of knowing is presented as particularly germane to the challenges of learning to teach. Although this section acknowledges that future teachers can and do learn from propositions, the importance of the *epistemology of learning from experience* is highlighted through examination of three lines of research: craft knowledge, narrative knowledge, and knowing-in-action. The second part of the chapter builds on this three-pronged conceptualization of *learning from experience* to explore how future teachers might engage in processes that encourage them to analyze and interpret experiences during their teacher education programmes as sources of knowledge. Action research and S-STEP are presented as two productive approaches for teacher candidates and teacher educators to develop both knowledge from experience and the capacity to learn from experience. Next, the role played by *authority* over one's experience in both learning to teach and learning to teach teachers is highlighted. Finally, the chapter concludes by acknowledging that the chapter focuses mostly on practicum experiences rather than experiences during teacher education programmes and by arguing that this gap frames an important future research agenda. In particular, the chapter states that action research is a valuable way of framing teacher candidates as researchers during the practicum but that it falls short of framing teacher candidates as researchers during the rest of the programme. One way to frame teacher candidates as researchers during coursework is to encourage them to frame learning experiences *during the programme* as problems worthy of collaborative S-STEP *with* their teacher educators.

In short, this chapter will examine the ways in which methodologies such as action research and self-study of teaching and teacher education practices (S-STEP) might engage students of teaching as researchers into their practices. A related goal is to demonstrate the parallels between the importance of *both* teacher candidates

and teacher educators framing themselves as researchers into personal practice. In so doing, the development of nuanced understandings of the relationship between teaching, learning, learning to teach and learning to teach about teaching can be developed in ways that both give authority over professional experiences and contribute to what we know about teaching and learning.

The Nature of Teacher Candidates' Professional Knowledge of Teaching

While George Bernard Shaw (1903) cursed teachers with the (often misquoted) phrase, "He who cannot, teaches" (p. 230); many others have made light of the popular view that teachers require no special knowledge beyond knowledge of particular content. Even if one accepts that there might be a specialized knowledge associated with teaching, the very premise of technical rationality that pervades teacher education programmes is that the knowledge required to teach can be transmitted in university coursework before it is "practiced" in the field; a belief that was framed as a particularly arrogant supposition by Munby, Russell, and Martin (2001).

Munby et al. (2001) argued that one useful way to conceptualize teacher candidates' professional knowledge was as a tension between propositional ways of knowing and of experiential ways of knowing. One central problem of teacher education programmes, then, is that propositional ways of knowing tend to get prioritized because they are most familiar to both teacher educators and to teacher candidates. One popular line of research into teachers' knowledge that might be characterized as being grounded in propositional ways of knowing is that idea of *pedagogical content knowledge* (often called PCK), which was first posited by Shulman (1986, 1987).

It is not difficult to see why pedagogical content knowledge might be an appealing construct for researchers. The concept underscores what many educationists intuitively believe, pedagogical content knowledge is, "that special amalgam of content and pedagogy that is uniquely the province of teachers" (Shulman, 1987, p. 8). If one pictures a Venn diagram with one circle as content and the other as pedagogy, then the place where these two circles overlap is pedagogical content knowledge. The course for research on teachers' professional knowledge and how it develops seemed clear: Identify the pedagogical content knowledge required to teach particular subjects and/or grade levels and ensure that this knowledge base is communicated to new teachers in their teacher education programmes.

There are many problems with this approach. First, Zeichner and Tabachnik's (1981) article argued that the effects of teacher education programmes, grounded in technical rationalism, are so meager that they are "washed out" early in their careers. Second, researchers such as Settlage (2013) have noted that it is difficult to find empirical evidence for PCK. Loughran, Milroy, Berry, Gunstone, and Mulhall (2001) pointed out that PCK is a concept that reflects researchers' views about

teachers' knowledge; it bears little resemblance to the ways in which teachers discuss their teaching or how they learn about teaching. Finally, many articles exploring the nature of PCK do not take into account Shulman's admitted political agenda in positing the idea of PCK. His purpose was to argue that teachers have several different kinds of special knowledge in an era where teachers were under particular kinds of attack in the United States. It is interesting to note that most discussions of PCK avoid the other "minimum" components of the knowledge base for teachers articulated by Shulman: content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contents, and knowledge of the historical and philosophical foundations of education (Shulman, 1987).

Although many who design and teach in teacher education programmes would argue that their work implicitly takes the role of experiential knowledge into account, largely by virtue of requiring teacher candidates to have extended placements in the K-12 system, it is less clear if the enterprise of teacher education has paid much explicit attention to how teacher candidates are supposed to learn from those experiences. Teacher candidates are ostensibly placed with supervising associate teachers to learn aspects of the profession *in situ* and to receive feedback on the development of their pedagogical approaches. However, researchers at least as far back as Lortie's (1975) seminal sociological analysis of teaching have pointed out that the practicum might be a conservative force resulting in the reproduction of traditions of teaching. One of the participants in Bullock (2011), for example, called the practicum a *false apprenticeship* because he did not truly have the opportunity to enact pedagogies that were in accord with his own beliefs and values. He argued that he ultimately a guest in someone else's classroom and, among other things, had to both respect the existing classroom routines and patterns and be mindful that his performance during a practicum placement had an effect on his placement reports and thus his future job prospects.

Dewey's (1938) warning that experiences are not automatically educative certainly rings true for teacher education. Simply presuming that teacher candidates will learn what we hope they learn during a practicum placement rings hollow, yet teacher education programmes often seem to place candidates in host schools with little attention to teaching teacher candidates how to learn from experience. This is hardly surprising, given how epistemology of learning from experience is not often framed as a form of knowledge that one has to work to unpack and develop. Knowledge gained from experience is often tacit and unexamined (Polanyi, 1967).

One example of the effects of not attending to knowledge gained from experience can be found in the *apprenticeship of observation*, first mentioned in Lortie's (1975) work and later named by Darling-Hammond (2006) as one of the fundamental challenges of learning to teach. The apprenticeship of observation is a way of attending to the fact that those who seek to be teachers have been to school and thus have witnessed hundreds of hours of teachers' behaviours. Teacher candidates have a well-formed set of instinctive reactions for teaching situations that might arise based on how they have witnessed their teachers respond over their history as K-12 students. The apprenticeship of observation is a false apprenticeship, though,

because teachers are not trying to communicate to their students how to act like teachers. A true apprenticeship model requires that the expert intends to mentor the apprentice into the profession – such is not the case in teaching.

There are several different ways in which the experiential nature of teachers' professional knowledge has been conceptualized. For purposes of this chapter, we will consider the constructs of craft knowledge, narrative knowledge, and knowing-in-action. Grimmer and MacKinnon's (1992) conceptualization of craft knowledge is a useful starting point because it begins with Shulman's (1987) ideas about a knowledge base of teaching and, unlike many other discussions, makes an argument for the uniqueness of pedagogical content knowledge. Grimmer and MacKinnon (1992) argued that pedagogical content knowledge is not propositional, as it is often treated in subsequent literature:

Pedagogical content knowledge is derived from a considered response to experience in the practice setting, and, though related to knowledge that can be taught in the lecture hall, it is formed over time in the minds of teachers through reflection. In our view, Shulman's rendition of pedagogical content knowledge is more analogous to a craft conception of teaching than to one of teaching as an applied science. (p. 387)

It is telling that Grimmer and MacKinnon invoke the term *applied science*, as it positions their argument squarely in Schön's critique of the traditions of technical rationalism. I would also argue that Grimmer and MacKinnon's use of pedagogical content knowledge is quite different from the way PCK is usually taken up in the literature. They recognized that PCK, in of itself, was not a complete representation of the epistemology of learning from experience and introduced the term *pedagogical learner knowledge* in the following way:

Whereas pedagogical content knowledge concerns itself with teachers' representations of subject matter content in terms of how it might be effectively taught, *pedagogical learner knowledge revolves around procedural ways in which teachers deal rigorously and supportively with learners*. Although the "maxims" of craft knowledge are useful in guiding practice, they cannot replace the role of experience in the development of craft. (p. 387, emphasis added)

Grimmer and MacKinnon's (1992) conceptualization of craft knowledge of teaching is the combination of knowledge gained from experiences teaching curricular content and working with learners. The role of learning from experiences with students' reactions and actions to particular teaching techniques is placed at the heart of craft knowledge. As Loughran (2006) pointed out, a focus on the relationship between teachers and learners is far more in keeping with the concept of pedagogy as it is classically defined, as opposed to the casual use of the term pedagogy as a synonym for "teaching style". Craft knowledge explicitly requires an epistemology of learning from experience and "represents teachers' judgment in apprehending the events of practice from their own perspectives as students of teaching and learning, much as a "glue" that brings all of the knowledge bases to bear on the act of teaching" (p. 387). In short, development of a craft knowledge of teaching requires new teachers to learn how to learn from experiences that unfold in front of them while simultaneously attending to a variety of different demands of

classroom experience. Darling-Hammond (2006) named the problem of complexity as a third major problem of learning to teach; the development of craft knowledge is the rudder that helps new teachers navigate the complexities of their roles.

Clandinin and Connelly (1996) offered another conceptualization of how teachers make sense of experiences to develop knowledge of teaching. Central to their argument is the importance of experiences that teachers have in professional contexts for development of knowledge about teaching: “The professional knowledge context shapes effective teaching, what teachers know, what knowledge is seen as essential for teaching, and who is warranted to produce knowledge about teaching” (p. 24). Clandinin and Connelly (1996) recognized that the contexts in which teachers work, what they call *professional knowledge landscapes*, are fraught with tensions and dilemmas of practice. They argued that the ways in which teachers deal with these tensions can be understood via narrative inquiry using the concepts of *secret*, *sacred*, and *cover* stories. Central for teachers are the tensions between how they make sense of their professional experiences behind a closed classroom door, with students, and how they make sense of their experiences outside the classroom door with colleagues, parents, friends, family, and the world at large. Clandinin and Connelly believed that the lives of teachers behind their closed classroom doors were *secret stories*. Beyond the classroom door, teachers often tell *cover* stories to mitigate any overall dominant *sacred* story of schools. They articulated the interactions between the three sets of stories in the following way:

Classrooms are, for the most part, safe places, generally free from scrutiny, where teachers are free to live stories of practice. These lived stories are essentially secret ones. Furthermore, when these secret lived stories are told, they are, for the most part, told to other teachers in other secret places. When teachers move out of their classrooms into the out-of-classroom place on the landscape, they often live and tell cover stories, stories in which they portray themselves as experts, certain characters whose teacher stories fit within the acceptable range of the story of school being lived in the school. Cover stories enable teachers whose teacher stories are marginalized by whatever the current story of school is to continue to practice and to sustain their teacher stories. (p. 25)

It is not difficult to see how the concepts of secret, sacred, and cover stories might play out in the development of a teacher candidates’ knowledge of teaching during the practicum placement. The sacred stories about what is important in teaching come from both the teacher education programme, from the host school, from teacher educators and from associate teachers. The cover stories are how teacher candidates manage the sacred stories in light of their developing professional experiences. Finally, the secret stories are those that represent the realities of teacher candidates’ experiences once the proverbial classroom door is shut, perhaps only shared with either an associate teacher, a university-based field supervisor, or trusted teacher candidate colleague. These stories may also conflict. Perhaps most relevant to teacher education is the idea that teacher candidates feel a need to tell cover stories which leads to both the obfuscation of the nature of their knowledge and, in some cases, the impression that “teachers do not know that they know” (Clandinin & Connelly, 1996, p. 28). This line of work is a powerful reminder for teacher educators of the dangers of treating teacher candidates as blank slates to be

filled with propositional knowledge, as is argued by technical rationalist ways of thinking.

Finally, Schön's (1983, 1987) work provides a third useful lens that might be used to reveal how teacher candidates learn from experience. In his seminal work, *The Reflective Practitioner*, Schön (1983) argued that professional knowledge has an inherent artistry that goes beyond the simple application of technique in particular circumstances. Rather, Schön believed that professionals learn from experiences that require them to deal with atypical situations, or *problems of practice*. For example, when teacher candidates encounter an unfamiliar situation, they engage in *reflection-in-action* as they frame the problem and take a particular course of action. Providing they are still in the *action present*, the situation "speaks back" and encourages them to reframe the problem in different ways. Schön argued that *reflection-in-action* leads to *knowing-in-action*, which is the defining epistemology of professional knowledge. Schön explains reflection-in-action as a way of recognizing the fast, improvisational thinking that professionals have to do using examples of various kinds of performance:

Phrases like "thinking on your feet," "keeping your wits about you," and "learning by doing" suggest not only that we can think about doing but that we can think about doing something while doing it. Some of the most interesting examples of this process occur in the midst of a performance. Big-league baseball pitchers speak, for example, of the experience of "finding the groove" [of throwing a baseball to batters over the course of a game] ... When good jazz musicians improvise together, they also manifest a "feel for" their material and they make on-the-spot adjustments to the sounds they hear. Listening to one another and to themselves they feel where the music is going and adjust their playing accordingly. (Schön, 1983, pp. 54–55)

One important conclusion to draw from Schön's work is that it explicitly addresses his critique of technical rationality by recognizing that practitioners, like teacher candidates, are involved in creation of knowledge about the discipline. Every time that a teacher candidate engages in reflection-in-action leading to knowing-in-action, they are developing both their personal knowledge of practice and, in many ways, conducting an investigation into the discipline of teaching itself. As Schön was quick to point out, framing the development of professional knowledge as an epistemology of learning from experiences troubles the traditional theory-practice divide and its associated technical rationalist underpinnings:

When we reject the traditional view of professional knowledge, recognizing that practitioners may *become* reflective researchers in situations of uncertainty, instability, uniqueness, and conflict, we have recast the relationship between research and practice. *For on this perspective, research is an activity of practitioners.* It is triggered by features of the practice situation, undertaken on the spot, and immediately linked to action. There is no question of an "exchange" between research and practice or the "implementation" of research results. (Schön, 1983, pp. 308–309, emphasis added)

This is not to suggest, of course, that there is no place for traditional forms of research in the development of knowledge about teaching or the discipline of education. Schön (1983) pointed out a number of ways in which more traditional forms of research might contribute to the development of knowledge of practice, including

research on the process of reflection-in-action. It does, however, completely disrupt the idea that theory is generated only at the academy, which is then transmitted to teacher candidates in teacher education programmes, who then are required to “practice” implementing educational theories in the field under an experienced member of the profession. Schön argued that the act of teaching was a form of research. This act requires teacher educators to attend to the very different forms of knowledge that teacher candidates are implicitly asked to develop in their teacher education programmes. One productive way to do so is to explicitly frame teacher candidates as researchers during their teacher education programmes.

Framing Teacher Candidates as Researchers

The idea that teacher candidates might be formally required to inquire into their practice might seem quite strange when considered from the viewpoint of a technical rationalist. After all, teacher candidates ostensibly come to teacher education programmes in order to *learn* to teach, and so positioning them as researchers into a profession they are just entering could provoke questions about the role of the teacher educator. Teacher candidates may also express confusion over this kind of framing; in Bullock (2011) a group of science teacher candidates repeatedly stated that the early part of a teacher education should focus on providing them with opportunities to master what they called *the basics* of teaching. The idea was that candidates would be in more of a position to investigate more advanced forms of educational practice (which they termed “active learning approaches”) after they had developed a certain level of comfort with things like lesson planning and classroom management. It is not surprising that both candidates and teacher educators often feel this way, given the amount of trepidation that often accompanies the high-stakes practicum.

The urgency of the perspectives provided by epistemologies of experience reminds us, however, that the choice is not whether or not we frame teacher candidates as researchers. Our choice is whether or not we decide to recognize formally that learning to teach requires learning how to learn from experiences. Learning to teach requires a teacher candidate to be a researcher of their professional practice. The question teacher educators must answer is how we help them to make sense of their professional practice. Do we, as Schön (1983) suggested, help them engage in a *frame analysis* that calls attention to their tacit beliefs about teaching and learning and analyses critically how they view problems of practice? Do we, as Clandinin and Connelly (1996) suggest, find ways for teacher candidates to share explicitly and analyze their secret, sacred, and cover stories? Do we, as Grimmer and MacKinnon (1992) and Loughran (2010) suggest, help them to developed a nuanced view of teaching as craft and an understanding of pedagogy as a relationship between teachers and learners, that cannot exist in isolated from so-called “teaching strategies”? I believe the answer to all of these questions is unequivocally “yes” and that the traditions of action research (AR) and self-study of teaching and teacher

education practices (S-STTEP/S-STEP) are particularly well suited to guiding teacher candidates in this way.

Action Research

Action research has a longer history in social sciences than many realize. It seems to have been first coined in Lewin (1946) as a form of research that follows the now-familiar action research cycle, aimed at a particular social action. Johnson (2005), for example, reminds the reader that action research is a recursive process that often requires one to return previous steps or stages in the process. One of the earliest concepts of action research in education can be found in Foshay and Hall's (1950) work that had the telling title "Experimentation moves into the classroom." Corey (1954) provided one simple yet accurate definition that stands the test of time: "Action research in education is research undertaken by practitioners in order that they may improve their practice" (p. 375). Note that the emphasis, even decades ago, was on the role of the practitioner in the inquiry. Corey also provides reasoning for action research that foreshadows Schön's for a new epistemology of professional knowledge:

One of the psychological values in action research is that the people who must, by the very nature of their professional responsibilities, learn to improve their practices are the ones who engage in the research to learn what represents improvement. They, rather than someone else, try out new and seemingly more promising ways of teaching or supervising or administering, and they study the consequences. (Corey, 1954, pp. 375–376)

Here again we see that the work of teachers, and indeed of any professional in the field, is in fact a form of research in of itself. Carr and Kemmis (1986) defined action research as "a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social of educational practices, as well as their understanding of these practices and the situations in which these practices are carried out" (p. 5). They also believed that action researchers should focus on the improvement of educational practice while being collaborative in their work with each other, systematic in their methods, and willing to be -critical (Kemmis & McTaggart, 1988). Many of these ideas, particularly around collaboration and democratic involvement, were taken up in detail by proponents of participatory action research (PAR) – which itself draws considerable inspiration for the work of Paulo Freire.

Altrichter, Kemmis, McTaggart, and Zuber-Skerritt (2002) argued that action research, like many concepts in education, was subject to any number of definitions with varying degrees of coherence. In particular, they framed "the potential incongruity between two of its key aspects – intellectual clarity and developmental orientation" (p. 128) as particularly problematic. Altrichter et al. (2002) offered two parts of a definition of action research: an axiomatic one and rules-based one. In so doing, they hoped to clarify differences between what action research is, and how action research might be conducted. They define action research as:

Reflecting upon and improving their own practice by tightly inter-linking their reflection and action; and making their experiences public to other people concerned by and interested in the respective practice. (p. 128).

Their rules for action research seems more about defining methodological orientation; they argue that action research is democratic and allows for shared intellectual control. Altrichter et al. (2002) also use the well-known *plan-act-observe-reflect* spiral that is commonly cited in action research literature, with lineage back to Lewin's pioneering work.

More recently, researchers such as Chevalier and Buckles (2013) have clarified the importance of participatory action research (PAR) for conducting improvement-oriented work *with* participants, rather than *on* participants, stating "PAR practitioners must pay more attention to the embeddedness of means in ends – building into the inquiry process the goals of a genuine encounter between self and other" (p. 5). Stringer (2004) reminds us that many teachers are initially wary of many calls to engage in research because of the ways they have typically thought of, and perhaps experienced, research in the past. Like many proponents of participatory approaches to action research, Stringer (2004) argues that a systematic inquiry into practice for the development of practice should be "democratic, participatory, empowering, and life-enhancing" (p. 31) and should ultimately focus on building relationships, rather than achieving bureaucratic aims. Although his work is not with teacher candidates, Tasfos (2009) lends additional credibility to the participatory nature of action research by documenting, in detail, the processes through which he engaged his Greek literature students in his action research project while simultaneously giving them considerable input into the nature of the project. The students were explicitly framed as co-researchers in his participatory action research project and contributed to each phase of the study.

There is a long history of engaging teacher candidates in action research projects as a part of their teacher education programmes. Unfortunately, many attempts seem to not have been sustained over a long period of time, as they often seem to rest on the initiative of a particular teacher educator within a course or the efforts of a particular research team. Kosnik and Beck (2000) reported on one sustained initiative at a Canadian university. They argued that *how* action research is introduced to teacher candidates matters far more than the fact that it *is* introduced. I paraphrase some particularly relevant suggestions from their study below:

- Locate the action research project in a curriculum area so that "it could not be relegated to the edges of the students' attention."
- Integrate the action research project with coursework.
- Engage faculty in promoting action research as *real* research that contributes to knowledge, not simply another university assignment to be completed.
- Provide some sort of final action research conference that both gives "an end-point" to the process and adds *gravitas* to the importance of sharing results with the broader community. (pp. 133–134)

Kosnik and Beck also called for education researchers to follow-up with teacher candidates who engage in action research in their early careers. They fulfilled their

call in subsequent work (Kosnik & Beck, 2011). More recently, Munthe and Rogne (2015) have corroborated Beck and Kosnik's findings in a Norwegian context, arguing in part that the way teacher educators approach the concept of "research" in teacher education programmes has a significant affect on how teacher candidates perceive the role of research in teaching. For example, Munthe and Rogne state that there was a disconnect between the research literature and the teacher candidates' inquiry foci. Perhaps the teacher educators in Munthe and Rogne's study need to attend more to the issue of inquiry and action research being viewed valid forms of research.

Action research can help teacher candidates develop sophisticated understandings of their practice. Byman et al. (2009) even argues that teacher candidates appreciate a research-based approach, defined as "an inquiry orientation in the work of a teacher" (p. 79) to the organization of teacher education programmes. Kayaoglu (2015) suggests that teachers find action research to be a useful counterpoint to many of the pressures of associated with centralized educational systems. Chant, Heafner, and Bennett (2004) provided convincing evidence that elementary teacher candidates were able to combine what researchers called *personal theorizing* with action research projects into their practice. Using a framework from Argyris (1976), one might also label personal theorizing as *theories-of-action*, which in turn are likely derived from candidates' apprenticeships of observation (Lortie, 1975). Critically, the study identifies the importance of both carrying out an action research project over multiple semesters and establishing trust between teacher educators and teacher candidates for the successful implementation of action research projects. It is not surprising that the teacher candidates in the study reported that they were confused about the purpose and process of action research. The epistemology required for engaging in action research is not typically emphasized in schools or universities.

The researchers also reported that the teacher candidates came to understand the value of action research when they had sufficient time to link their personal theorizing with their action research projects on placement. It was not until the third semester of the programme that the benefits became clear and, importantly, the researchers mentioned that educators who interacted with the candidates in schools were impressed by the ways in which the teacher candidates were able to talk about their practice in sophisticated ways. These findings are echoed in Clarke and Fournillier (2012), in which they used cultural-historical activity theory (CHAT) to shed light on the processes of action research by analyzing two activity systems that contributed to the action research projects of mathematics teacher candidates. Although the authors acknowledged the exploratory nature of their work, they did provide evidence that the mathematics teacher candidates were able to talk about their practice in more sophisticated ways as a result of conducting action research. Clarke and Fournillier also argued that activity theory helped them to understand how their pedagogies of teacher education needed to change to accommodate a focus on action research.

El-Dib (2007) reminds us that teacher candidates who engage in action research will likely reflect in different ways. Although action research may provide a way of

documenting the development of craft knowledge of teaching, the nature of the “reflections” produced in final action research reports will vary considerably. He begins with the premise that although there is not one clear definition of reflection in teacher education, it is important to recognize and assess the different levels of reflection teacher candidates might exhibit and he offers an assessment tool for considering the levels of reflection exhibited by teacher candidates. His exploratory but large-scale study of over 300 action research reports submitted by Egyptian teacher candidates reveals that over half of the teacher candidates exhibited low levels of reflection in their action research reports.

Although these results are initially disheartening, they do shed light on the importance between aligning the structure of teacher education programmes and the role of action research. Framing teacher candidates as researchers has little value if their action research plans are drowned out by other, perhaps more tangible requirements. El-Dib (2007) commented, “the present focus on methods of teaching, and the preoccupation with teaching strategies and techniques, leaves little time to developing reflective thinking ... the current status of methodology courses sends messages to the trainees as to the primacy of acquiring a body of knowledge over acquiring and exhibiting reflective thinking capabilities” (p. 32). This study seems to echo the finding of Chant et al. (2004) that time and deep engagement action research projects matter. In addition, a study on the use of action research in a teacher education programme in Ethiopia corroborates El-Dib’s finding that students require considerable time and space to think deeply about their projects, and that prescriptive structures of teacher education programmes can work against the goals of action research (Hussein, 2009). Hussein ends with the following provocative statement:

Action research must become meaningful to them before they try to make it meaningful to their supervisees. Thus, a community of practice should be created to enable the educators to gain in-depth knowledge about action research. This simply means that our teacher education in general and the way teacher educators carry out their duties need a fundamental rethinking. (p. 145)

Hussein’s comments remind the research community of the importance of allowing time and space for *both* teacher educators and teacher candidates to engage deeply with action research and its consequences for how we think about practice.

Work conducted by Hagevik, Aydeniz, and Rowell (2012) with American middle-school teacher candidates yielded promising results. Again, the authors attributed part of the reason for their success to the opportunity to engage in action research over a longer span of time – in this case, 1 year. As Hagevik et al. note: “It takes a great deal of time and support for preservice teachers to see their work in terms beyond surviving the day-to-day routines to a more reflective approach to decision making based on knowledge forms (Gitlin, Barlow, Burbank, Kauchak, & Stevens, 1999)” (p. 682) Crucially, Hagevik et al. underscored the relevance of the productive relationship that developed between a number of involved in the project: teacher candidates, associate teachers, university-based field supervisors, principals of host schools and a professor well-versed in action research methodology.

Ulvik's (2014) study of Norwegian teacher candidates also highlighted the importance of forming connections between all of the people involved with the project; he particularly emphasized the role of the associate teacher in helping teacher candidates enact their action research project. Ulvik also reported that one of the things teacher candidates like about action research is the opportunity, "to change something and have an impact on a situation – even if it was in small steps – and to focus on actions and not take what happens in the classroom too personally" (p. 531).

Action research, with its emphasis on a recursive cycle of planning, acting, reflecting, and revising in the crucible of practice has considerable potential for encouraging teacher candidates to learn how to learn from experience. Coghlan and Jacobs (2005) highlighted that one of Lewin's original conceptions of action research was that it should be a process of reeducation. Although that term has a popular, problematic association with totalitarianism and brainwashing, Lewin's ideas seem to fit more with the ideas of the transformational nature of action research (Coghlan & Jacobs, 2005). For Lewin, the process of reeducation through action research means that the participant has come to view things differently and rests on the understanding that simply having an experience is generative of new kinds of thinking. Blumenreich and Falk's (2006) study of action research in an urban teacher education environment highlighted how sustained engagement in action research not only changed candidates attitudes towards particular teaching practices, but also aided in the development of self-efficacy about teaching. As one participant powerfully stated, "As a result learning to do research, I am much more confident of what I want to do and how I want to do it as a learner. I think that my learning is MINE" (p. 871).

Rather than passive receivers of the propositional knowledge of teacher educators and associate teachers, teacher candidates doing action research are framed as active constructors of knowledge, in ways suggested by Schön. The participatory nature of many approaches to action research has promising applications to uncover the different kinds of teachers' narratives of practice, as well as to help understand the rich professional landscapes that teachers inhabit. Action research may also help teachers develop craft knowledge as an understanding of the relationship between their actions as teachers and the responses from students.

Self-Study of Teaching and Teacher Education Practices

Although there are many examples of action research conducted by university-based instructors and professors, the bulk of the literature seems to focus on either teacher candidates or teachers conducting action research or university professors conducting action research with teacher candidates/teachers within a participatory framework. Self-study of teaching and teacher education practices offers a different lens for the epistemology of learning from experience, one that encourages those who teach teachers to analyse carefully features of their own practice. The boundary between action research and S-STEP research is not strictly drawn, although the

latter tends to focus far more on naming and interpreting how someone came to understand their practice differently, whereas the former tends to focus more on the results of particular interventions that were made in the classroom. This is also not to suggest, however, that self-study of practice is solely the domain of the teacher educator: Pithouse, Mitchell, and Moletsane (2009) provided one powerful edited collection of the role S-STEP plays in the development of practitioners outside of teacher education.

The phrase self-study of teaching and teacher education practices may initially bring to mind images of a rather solipsistic pursuit of developing one's own practice. As Loughran (2005) pointed out, however, S-STEP refers to the focus of the research rather than process through which research is carried out. It is best called a methodology as it provides a theoretical framework for thinking about how research on practice might be conducted. Pinnegar and Hamilton (2009) argued that a fundamental feature of S-STEP research is that it requires a shift toward an ontological, rather than an epistemological commitment. That is, S-STEP methodology requires one to shift towards studying *what is* in one's personal practice. This orientation requires considerable vulnerability from the researcher. It also provides a direct link between S-STEP and the epistemologies of learning from experience described earlier in this chapter. Brandenburg (2009), for example, provides a direct link to Schön's idea of framing and reframing. Her work providing an example of *assumption interrogation* in her roles as both a teacher educator and a researcher: S-STEP, "represented an approach to my research which provided an inbuilt mechanism for identifying and dealing with issues related to practice as they arose *in situ* ... I consider self-study to be generative [defined as] knowledge derived from experience which contributed to my knowing as a teacher educator" (p. 208). In other words, S-STEP helps practitioners name features of knowing-in-action, gained via reflection-in-action.

Given the generative and recursive nature of S-STEP research, it is not at all surprising to learn that there is no "one right way" to engage in S-STEP. There are, however, a number of guidelines that guide practitioners in their S-STEP work. One of the most widely cited comes from Bullough and Pinnegar's (2001) seminal article, in which they outline 14 guidelines for quality in engaging in S-STEP research. The guidelines were designed to help researchers, "negotiate a particularly sensitive balance between biography and history ... [because] there is always a tension between those two elements, self and the arena of practice, between self in relation to practice, and the others who share the practice setting" (p. 15). LaBoskey (2004) argued that S-STEP research is self-initiated, improvement-aimed, and interactive, while using multiple methods toward exemplar-based validation (pp. 842–853).

At this point it is worth considering what S-STEP might have to do with the concept of framing teacher candidates as researchers. The first connection can be found in the genesis of S-STEP methodology itself. As Loughran (2004) pointed out, S-STEP developed as a result of a group of teacher educators who wished to study their own pedagogies of teacher education in the ways that they encouraged teacher candidates to study their own developing practices. The second connection is that both methodologies are improvement-aimed; that is, both action research and

S-STEP seek to actively improve pedagogy. Drawing on arguments made by Schön (1983) and others, LaBoskey (2004) underscored the importance of the link between action research and S-STEP for the development of professional knowledge by stating:

The professionals in a field are particularly well situated to construct knowledge of that profession by engaging and investigating their own authentic questions of practice. So self-study researchers study our own professional practice settings; it is scholarship *initiated by and focused on us*. (p. 858)

Thus while teacher educators are uniquely positioned to create knowledge of teaching teachers through S-STEP, so too are teacher candidates uniquely positioned to create knowledge of learning to teach K-12 students through action research. Third, and perhaps most significantly, teacher educators and teacher candidates are united in what the Arizona Group (1997) poignantly referred to as “obligations to unseen children” – the future students of teacher candidates. S-STEP and action research are thus united in what Pinnegar and Hamilton (2009) argued was a moral component to understanding one’s own practice.

S-STEP methodology provides a way for teacher educators to frame themselves as researchers of practice while framing teacher candidates as researchers of practice. In some cases, S-STEP researchers have invited collaboration from teacher candidates to unpack their practice and, in so doing, encourage a teacher-researcher disposition in the candidates. In Russell and Bullock (1999), for example, I shared a journal of my extended practicum experience for a semester with my physics methods professor, Tom Russell, before he invited me to switch roles by having me comment on a journal of his practice teaching the curriculum class I was enrolled in. The collaboration had an incredible impact on me as a teacher candidate, and later as a graduate student and new academic because the act of collaboration demonstrated that I had something of value to contribute to a discussion with a senior scholar. Collaborating with Tom underscored a fundamental message of S-STEP research: “The only way [form of inquiry] this can be accomplished is with the input of others” (LaBoskey, 2004, p. 825). There are other examples of S-STEP researchers inviting teacher candidates and practicing to participate in research into practice and, in so doing, helping them to frame themselves as researchers.

Freidus et al. (2009) described the ways in which a group of recent graduates and a faculty member engaged in ongoing S-STEP work as a form of professional development to deepen their understanding of practice. They report that the regular meetings, and the S-STEP process in particular, “enabled participants to develop and extend their shared language ... [which] enabled them to grow personally and professionally (p. 185).” Brown and Russell (2012) describe a unique arrangement in which they maintained a shared blog in order for Russell to comment on Brown’s first years of teaching in an unfamiliar cultural context. Kroll (2005) described the ways in which candidates in her course engaged in inquiry throughout a 2-year programme, with a goal of fostering a commitment being teacher-researchers and inquiring into their own practice. Her findings are particularly relevant to a

consideration of the connections between action research, S-STEP, and framing teacher candidates as researchers:

Learning to inquire into one's own practice is essential to becoming a teacher who is a life-long learner. Through the cyclical process of raising, refining, and investigating questions, examining data, and making changes in practice [c.f. the action research cycle], a new or pre-service teacher can be more thoughtful about the decisions she makes with regard to her own practice. Inquiry as a habit of mind contributes to a teacher's arsenal of reflective practices, providing her with the opportunity to use self-study to improve her practice in an organized and organic way. (p. 192)

Self-study of practice can be a valuable way of unpacking the complexity of teaching future teachers by finding ways for them to engage in traditions of inquiry and action research.

Freese (2006) provided a highly illustrative case of the potential power of combining S-STEP and action research methodologies. The article focuses on one teacher candidate, Ryan, who provided a lens through which Freese examined and reframed her practice as a teacher educator. The data were collected over 2 years and include, among other things, the researcher's notes and reflections, the host teacher's journal, Ryan's action research paper. The article testifies to the enormous power of framing both teacher candidate as researcher and teacher educator as researcher, simultaneously, so that both can develop further their epistemology of learning from experience. Significantly, Ryan participated in the data analysis in ways that some might frame under the umbrella of both participatory action research and collaborative S-STEP. The account fits numerous criteria for S-STEP research articulated by Bullough and Pinnegar (2001); significantly, something was clearly "at stake" in the story.

The conflict between teacher candidate (Ryan), who felt that the teacher educator was pushing too hard with her expectations, and the teacher educator (Freese), who voiced concerns about Ryan's commitment to becoming a teacher rings true to those who have found themselves in similar situations. Freese documents a chronology of obstacles to Ryan's growth as a teacher (fear, inability to take responsibility for actions, contradictions between beliefs and practice, and closed-mindedness). At the end of the paper, we learn that Ryan's participation in the data analysis and his commitment to S-STEP enabled him to both reframe how he thought about teaching and to overcome the obstacles to his success that characterized much of his early time in the programme. We also learn that Freese felt her work with Ryan in collaborative S-STEP had a marked effect on how she thought about previous events:

In his retrospective reflections, Ryan explained why he responded the way he did. His honest reflections and systematic analysis of his teaching helped me "see with new eyes" the struggles, contradictions, and debilitating fears that preservice teachers may encounter. I misinterpreted his behaviors as either stubbornness or lack of motivation. I now realize that some students are nearly paralyzed by fear. It is essential that I help students identify their fears, their beliefs, and "oppositional pairs" in order to help them achieve their potential. This study helped me realize that my interpretation of Ryan's behavior and the obstacles he faced was inaccurate. I need to find ways to help students increase their awareness about themselves and inquire into their teaching. The challenge is to do this in a way that does not result in resistance, defensiveness or shutting down. (p. 115)

Freese's (2006) work provides a compelling argument for the importance of studying one's own practice and for inviting teacher candidates to join teacher educators as co-researchers. Like some of the previous studies that extol the power of action research, Freese's work with Ryan took place over an extended period of time. At the end of her paper, she mentions Schön's (1987) use of the term "giving reason," which she re-interprets in light of her experience with Ryan to argue: "As teacher educators we need to explore our preservice teachers' thinking and "give reason" to their actions, since the preservice teachers' knowledge or view of teaching may be quite different from the mentor's or supervisor's views of teaching and learning" (p. 116). S-STEP, in this case, became a catalyst for helping Ryan to frame himself as a researcher into his own practice, with powerful results for both teacher educator and teacher candidate.

Conclusion: Claiming an Authority of Experience

To many, the idea of positioning teacher candidates as researchers might seem odd. After all, common wisdom holds that teacher education programmes are places where prospective teachers go to learn best practices before going out into the field, under the watchful eye of an experienced practitioner. The realities of teacher education, however, are far more complicated than the assumptions of technical rationalism. The central challenge of learning to teach is not "putting theory into practice." The central challenge of learning to teach is learning how to learn from professional experiences and to develop warrants for making claims about one's developing knowledge of teaching. There are deep connections between learning to teach and learning to teach teachers; teacher candidates and teacher educators can benefit enormously from traditions such as action research and S-STEP that frames them both as researchers into their own practice. Action research may be better suited for teacher candidates on practicum, whereas S-STEP may be better suited for both teacher candidates and teacher educators during coursework in the rest of the programme.

This chapter began with a discussion of the nature of teacher candidates' professional knowledge; in particular, the importance of recognizing that learning from experience is different from learning from propositions. One important conclusion was that the epistemology of learning from experience can be developed through framing teacher candidates as researchers. Action research and S-STEP have been presented as ways to engage teacher candidates and teacher educators in the opportunities associated with "learning from experience," a phrase that is often casually used with little attention to the complexity of coming to new understandings of one's practice. This shift is important not only because it recognizes that teacher candidates come to programmes with well-formed views about how teachers act in a variety of situations (developed from their apprenticeships of observations), but also because it calls attention to the importance of a form of authority posited by Munby and Russell (1994): *the authority of experience*.

Munby and Russell demonstrated that prior school experiences underscore two kinds of authority: the authority of reason (given because of knowledge about a particular topic) and the authority of position (given because of a teachers' status). They highlighted earlier work in Russell (1983) that argued, in part, that sometimes teachers' knowledge claims to students seem to rely on an authority of position rather than an authority of reason. Some teacher education programmes seem to focus mostly on the authority of position and teacher candidates move into the profession; indeed one could argue that the practicum experience is designed to foster comfort with the authority of position. Schools and teacher education programmes, according to Munby and Russell, pay little attention to the role of the authority of experience in learning and in learning to teach. Teacher candidates, they note, are taught by teacher educators and associate teachers who have an authority of experience of teaching because they have taught: "The authority of experience gets transformed into the authority that says, *I know because I have been there, and so you should listen*" (p. 93). Munby and Russell also noted that knowledge gained from the authority of experience cannot be shared as propositional knowledge because it is derived from Schön's (1983) concept of knowing-in-action. Pinnegar (1998) explicitly framed the authority of experience as a "warrant for knowing" in the study of one's own practice (p. 32). Learning to teach is a process of claiming one's authority of experience.

The central purpose of framing teacher candidates as researchers is to help them learn how to learn from practice and thus to develop their own authority of experience. The role of the teacher educators (associate teachers, education professors) in teacher education programmes can then shift to one of helping teacher candidates to process and analyze critically features of their own practice. Learning to teach, then, is not just about acquiring an existing knowledge base of ideas about teaching. It is about learning how to frame and reframe experiences. It is about realizing that the secret, sacred, and cover stories teacher candidates construct within their professional knowledge landscapes can be interpreted through systematic investigation into personal practice. It is about developing a craft knowledge, which requires an adhesive to hold the many facets of teacher candidates' professional knowledge together. That adhesive, I submit, can be a commitment to action research and S-STEP, particularly when teacher educators who adopt a similar research frame support that commitment. Personal practice, of teaching and of teacher education, requires attention to epistemologies of propositional knowledge and experiential knowledge. Teacher education programmes tend to explicitly emphasize the former over the latter, even through the name of courses that teach "methods" for teaching a subject or strategies for "managing" classroom behaviours. Propositional knowledge plays a role in the education of a teacher, to be sure, but it is a familiar form of knowledge gained throughout K-12 and university education. Experiential knowledge is tacit; formal structures for learning from professional experiences can feel unfamiliar and frustrating for teacher candidates and for teacher educators. Yet the rewards can be remarkable; when one studies one's own practice, "the results are necessarily more persuasive and authoritative, relevant and accessible" (LaBoskey, 2004, p. 838).

Dinkelman (1997) cautions against claims that action research will automatically create reflective teachers; I would extend his warning to include the caveat that neither action research nor collaborative self-study of practice with a teacher educator will automatically help teacher candidates develop an epistemology of experiential knowledge. As he notes, "Action research will only live up to its promise to the extent that it is used intelligently by teacher educators" (p. 271). I think the larger point is that propositional knowledge towers over experiential knowledge, certainly in the minds of teacher candidates, and that framing teacher candidates as researchers into their own practice can send a powerful signal that learning from experience does not happen automatically. Teaching future teachers in ways that explicitly frame them as researchers is not a straightforward process, particularly as it often seems to run against what candidates expect to get from a teacher education programme. Teacher educators are well-advised to engage in S-STEP as a way of explicitly framing themselves as researchers into their practice; in the same ways they expect teacher candidates to become researchers of practice. Hamilton's (2005) consideration of Jeff Northfield's scholarship brings this point home in a powerful way by challenging teacher educators to take up the "Northfield Challenge," which includes, "teaching teachers about the value of research as a tool for improvement" (p. 98). In this way, teachers and teacher educators could, "move beyond reflection into the realm of research that would contribute to our knowledge and understanding of teaching" (Hamilton, p. 99). Choi's (2011) S-STEP the challenges of teaching action research to teacher candidates reminds us of the epistemological difficulties that teacher candidates (and teachers, for that matter) often have with action research methodology due to assumptions about the intrinsic value of positivism over other modes of knowing. An important part of encouraging teacher candidates to become researchers, then, is to recognize that the epistemology of learning experience is quite unfamiliar and, in many ways, runs counter to the dominant discourse of what counts as scientific inquiry.

This chapter began by arguing that teacher candidates need to develop a researcher stance so that they can make sense of the two overarching curricula present in any teacher education programme: the coursework and the practicum. Candidates need opportunities to make sense of both sets of experiences, but the reader might note that a majority of the chapter has focused on learning how to learn from practicum situations. There is a good reason for this apparent discrepancy, one that stems from the natures of action research and S-STEP research.

Most of the examples of action research, for example, frame teacher candidates as researchers into their practicum experiences. The argument from the literature seems to be that candidates can learn how to make sense of their experiences by acting with intentionality on their practicum, and then reflecting on their actions (perhaps in the sense described by Schön (1983)) before revising their approach to take new actions. Candidates can then make claims about knowledge derived through action research by focusing on what they learned about the problem of practice under investigation. For example, a teacher candidate might be interested in the ways in which her students respond to portfolio assessment in a Grade 9 mathematics classroom and enact a particular approach to gather, analyze and report on data examining that problem of practice. The act of framing the problem of practice,

the ability to tell stories about how the action research played out in the practicum, and the craft knowledge that the teacher candidate would develop are important outcomes. The focus of action research, however, is ultimately on understanding one's practice in a particular context. Teacher candidates do not typically have much control over their experiences in coursework, and so it is thus not surprising that action research does not provide many examples of how teacher candidates can be framed as researchers within their on campus experiences. Candidates in the action research paradigm are not researching their experiences during the non-practicum portions of the programme. Typically, an action research project might be a focus for one or more courses; teacher educators might help candidates to frame a problem to investigate and to interpret the data but ultimately action research will tend to frame *learning from experience* as something that happens in the practicum. The role of course work is framed, at least tacitly, as solely one of helping candidates to interpret their experiences.

It is here that the benefits of S-STEP can help teacher candidates (and teacher educators) to begin to interpret their experiences during the rest of the teacher education programmes. Under an action research paradigm, it does not make a lot of sense for teacher candidates to set a problem of practice to investigate within their experiences in coursework – after all, candidates typically have little say in how teacher education coursework is enacted. *Self-study, however, emphasizes not only the practice but also the study of self-in-relation-to-practice and self-in-relation-to-others.* Thus S-STEP implicitly calls on everyone in a learning experience to consider how one understands oneself and one's practice differently as a result of the learning situation. Teacher educators can and should play a leading role in using S-STEP as a way to frame teacher candidates as researchers during coursework experiences. There are many examples in the S-STEP literature demonstrating how teacher educators invited candidates in their courses to participate in a collaborative S-STEP process. Earlier, I called attention to work by Freese (2006) that describes and analyzes how collaborative S-STEP with a teacher candidate led them to new understandings of teaching and learning. Brown and Russell (2012), also mentioned earlier, details one powerful outcome that can occur when a teacher candidate, Brown, continues to position himself as a researcher after graduation.

I argue that an important future research agenda in teacher education is one that positions S-STEP as a vital ingredient to framing teacher candidates as researchers, particularly as researchers in non-practicum components of teacher education programmes. In Tidwell and Fitzgerald's (2004) chapter arguing for S-STEP as teaching, Tidwell shared that her understanding of research and of teaching shifted through prolonged engagement with S-STEP. In particular, the end of the chapter argues that S-STEP can position the researcher as a *self-evaluator*, an investigator of *effective practice*, an investigator of *the relationship between practice and beliefs*, and, ultimately, a investigator of one's own identity – the *self-in-relation-to-practice*. Although the first three points may have themes in common with some conceptions of action research, it is the final piece – the construction of self – that is particularly relevant to this new research agenda. I believe that teacher candidates would benefit from more explicit preparation in S-STEP, done in collaboration with teacher educators during coursework. In so doing, teacher candidates may develop

not only authority over their practicum experiences, but authority over their experiences in the rest of the programme as well. If action research is a gateway into developing an epistemology of learning from experience during practicum, then S-STEP is a gateway into developing the same epistemology during coursework. Teacher candidates, framed as researchers, should be explicitly involved in action research projects during practicum and collaborative S-STEP of their programme experiences, with their teacher educators, during coursework.

Teacher candidates need to learn how to make sense of the worlds of practicum and the rest of the programme. Both worlds require an orientation toward research and an epistemology of learning from experience. It is likely that action research will feel more familiar to teacher candidates, as the idea of having an intentional “intervention” in their developing practice will feel familiar from their existing ideas of the scientific method. S-STEP, however, will likely feel less familiar to teacher candidates because of its emphasis on dialogue as the fundamental way of knowing. As Guilfoyle, Hamilton, Pinnegar, and Placier (2004) stated:

Dialogue is the method of inquiry that lies below social construction of new knowledge in self-study. Fundamentally, the concept of dialogue represents a space of interaction, which allows for more than one way of representing a state of being or way of thinking ... Conversation moves from beyond mere talk to become dialogue when it contains both critique and reflection – when ideas are not simply stated but endure intense questioning, analysis, alternative interpretations, evaluation, and synthesis. (pp. 1157–1158)

Teacher candidates need and deserve to have spaces in which they can make sense of their learning experiences during the programme. It is unrealistic (and methodologically inappropriate) to ask teacher candidates to do action research on their programme experiences (since they cannot “intervene”), but it is realistic, and perhaps even vital, to encourage teacher candidates to enter into collaborative S-STEP with their teacher educators. Dialogue, as noted by Guilfoyle et al., is a fundamental characteristic of coming to know through S-STEP. So too is developing knowledge of our identities as teachers and teacher educators in relation to our practices. Both points highlight the relevance of not only S-STEP as teaching, as Tidwell and Fitzgerald (2004) argued, but also *self-study as teacher education*.

This line of reasoning builds both on Lewin’s (1946) assertion that practice is research and Schön’s (1983) assertion that teaching is research. This chapter posits that not only are action research and S-STEP ways of learning from experience, but that S-STEP is both teaching and teacher education. In other words, framing both teacher candidates and teacher educators as researchers enable both groups to develop additional expertise in teaching. As Putnam and Borko (2000) noted, a situated perspective on the development of teacher candidates’ professional knowledge requires a consideration of, “how various settings for teachers’ learning give rise to different kinds of knowing” (p. 6). In their remarks about situated learning experiences for teacher candidates, Putnam and Borko wonder, “Whether experiences can be designed that maintain the situatedness of practice and student teaching while avoiding the ‘pull’ of traditional school culture” (p. 8). Although I empathize with the sentiment of the question, I believe that focusing on alignment between the values espoused by a teacher education programme and the cultures of schools that might serve as spaces for practicum experiences is likely to be a frus-

trating experience – particularly when many programmes find it difficult to secure an appropriate number of placements in host schools. School culture will always be different than the culture of a teacher education programme; a more useful way forward, in my view, is to find ways to help teacher candidates tune into the challenges of learning from experiences. Teacher educators have little control over what happens in school placements; we have considerable say in our pedagogies of teacher education. Providing learning experiences that frame teacher candidates as researchers needs to be a deliberate pedagogical move by teacher educators. One move, worthy of taking, is to engage our teacher candidates in collaborative self-study of our teacher education practices.

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Chapter 26

Functions of Assessment in Teacher Education

Kari Smith

Introduction

This last decade we have witnessed an increasing awareness of the importance of teachers as agents for student learning and achievements. There is, to a large extent, consensus among researchers and policy makers that teachers matter (Hattie, 2009, 2012; OECD (Organisation for Economic Co-operation and Development) 2005). However, the consensus stops there, as little agreement exists with regard to how to prepare teachers to take on the heavy responsibility of educating a diverse student population for the schools of tomorrow. The question is – is at all possible to create a programme that produces the best teacher? Bergem (2008) claims that, “experience shows that it seems to be impossible to reach agreement about the content of teacher education” (p. 241). The central role of teachers in student learning alongside the diverse opinions of how to educate teachers, places a challenging demand on teacher education. Whenever politicians and the society are unhappy with student achievements on international and national tests, teacher education receives the blame, and shortly after the “PISA shock”, a new teacher education reform is likely to follow (Darling-Hammond, 2012; Smith, 2009; Wiseman, 2012).

Teacher education involves assessment of those who seek certification as teachers. Views on a good teacher inherently impact discussions of how to assess whether students of teaching have acquired the required knowledge and skills. These days required knowledge and skills are expressed in terms standards for teaching. Still certification of teachers is only one function of assessment in teacher education, and even if it is the most obvious, it seems reasonable to assert that preparing future teachers to become assessors for, and of, student learning is at least an equally important function of assessment in teacher education.

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This view has developed for me as a consequence of my long experience as school teacher, teacher educator, leader of teacher education programmes, and researcher. My research interests are in assessment, mainly assessment for learning, as well as in professional learning for teachers and teacher educators. I would argue that the linkage between the two fields has not been sufficiently addressed by stakeholders of teacher education or by researchers.

The main focus of this chapter is the multiple and complex functions of assessment in teacher education; which brings to the fore a number of important issues. One over-riding issue is that of assessment as gate-keeping; “Who are suitable and qualified candidates to join the teaching profession and who are not?”; a function that is by-and-large summative. In examining this issue, the chapter opens up a number of related issues and illustrates how preservice teachers learn about assessment from different perspectives – both formative and summative. Finally, the notion of modelling of assessment is considered as teacher educators’ modelling of assessment is critical which raises the question: “Do teacher educators practice what they preach in relation to assessment, and especially assessment that enhances learning?”

I argue throughout the chapter that assessment in teacher education serves a number of functions and is therefore a complex concept. My claim is that assessment has not been given sufficient attention in teacher education in Norway, where I am located, nor in the international literature pertaining to the functions of assessment in teacher education; there too it is limited. The motivation for writing this chapter is therefore to contribute to the discussion of the complex functions of assessment in teacher education by presenting an overview of my own understanding formed through reading other people’s work, official documents, and not least my long experience as teacher and teacher educator. Functions of assessment in teaching are related to developments in teacher education.

Changing Foci of Teacher Education

Marilyn Cochran-Smith wrote an editorial for a special issue of *Teaching and Teacher Education* in 2004 in which she discussed the problem of teacher education by looking at three periods during then the last 50 years, now the last 60 years. She identified that from 1950 to 1980 teacher education took a training focus that advocated preparing preservice teachers with skills to apply a fixed set of techniques. Critics identified superficiality as the main determinant of this approach because teachers lacked a thorough understanding of what they did and why they did it, remaining ignorant of the pedagogical rationale behind the various teaching techniques. During their training teachers did not engage in making professional decisions.

In the second period, 1980–2000 (approximately), Cochran-Smith identified a learning focus as the leading view in teacher education. This period represented a reactive response to the training focus by applying emphasis on understanding

teaching in relation to its context and recognizing the ability to learn from experiences through reflection. Teaching is complex and acknowledging and handling diversity became key issues in teacher education. Kolb's 'Experiential learning model' (1984) and, Schön's well-known book about reflective practice (1983) are major products from this period. In Europe Fred Korthagen (1982) first published the ALACT model in Dutch before the English version emerged in 1985. The ALACT model of reflection is an expanded adaption of Kolb's experiential learning model. Similarly, in Norway, the learning focus identified by Cochran-Smith triggered the development of reflective models, the best known probably being that by Handal and Lauvaas, first published in Norwegian before the English version appeared in 1987.

The period that Cochran-Smith (2004) described as a policy focus started around 2000 extending to the present. The pendulum swung from techniques to reflection, not it appears as though it is swinging back again. Although it may not return fully to the training focus, it certainly seems to be a long way from focusing on teachers' situational knowledge as the foundation for their professional decision-making. Since 2000 a main goal for policy makers has been to raise student achievement. The 'efficiency' of teaching has therefore been viewed as central and, as teacher education is about preparing preservice teachers, it is where the work of 'becoming efficient teachers' is seen as beginning.

Licensing depends on assessment of required subject matter knowledge and specific teaching skills. Teachers, school leaders and regional school authorities are asked to document achievements to meet the demand for accountability (Cochran-Smith, 2004). Criticism of the policy focus has frequently been expressed in USA and beyond. Clark (2008) worried about the 'soul of teacher education' when external factors become more central to the education of teachers than the message of seeing the individual person – teacher as well as students – and to create an optimal learning context for each. David Berliner (2006) claimed that the overwhelming pressure for strong accountability on achievements and learning outcomes leads to disheartened teachers, grades given without sufficient support, and an increase in 'teaching to the test'.

Researchers outside the United States express similar concerns about a heavy monitoring system and its reductive influence on teaching and learning (Brennan & Willis, 2008; Colucci-Gray & Fraser, 2008; Furlong, McNamara, Campbell, Howson, & Lewis, 2008; Menter & Hulme, 2008; Simons & Kelchtermans, 2008; Smith, 2011a). In her 2014 European Conference on Educational Research (ECER) keynote, Cochran-Smith presented a model that demonstrated how teacher education is influenced by external factors such as policy trends, intellectual trends, and demographic trends. Her ECER presentation reflected a US context, however, the same pattern and similar policy trends can be found beyond those borders. In fact, in Europe and in Norway, teacher education has not escaped the accountability pressures under which teachers and schools work and are scrutinized.

Teachers and schools need to deliver students' scores on national and international tests, and teacher education has become more centrally controlled regarding the 'what' and the 'how' of teacher education. Policy decisions are, however, rarely

supported by a strong rationale for the reforms introduced. A recent general trend in Norway is the push to strengthen teachers' content knowledge and to expand the clinical component of teacher education (Norwegian Ministry of Education & Research, 2013a). In England two-thirds of teacher education takes place in schools (Furlong, 2013), and alternative routes to teacher education are increasingly offered in a number of countries (Zeichner & Bier, 2012). It is not in the scope of this chapter to discuss in depth the pros and cons of the various developments, but they are mentioned as an example of how policy trends impact teacher education through repeated reforms.

In her presentation Cochran-Smith (2014) suggested that intellectual trends also influence the nature of teacher education as they relate to changing conceptions of how people learn and to the kinds of knowledge needed for a future globalized society. The increased emphasis in Norway on content knowledge and extended practica in teacher education are examples of changed perceptions of what is considered important for teachers to know. In Scotland, a recent curriculum change, *The Curriculum for Excellence*, provides, "young people with the knowledge, skills and attributes they need for life, learning and work in the twenty-first century" that has also impacted teacher learning and teacher education (Hayward, 2015, p. 31 quoting Education Scotland, 2010). As stated by the Education Scotland team, the intention to finalize the implementation of the Curriculum for Excellence is an ongoing process – more a 'direction of travel' (personal communication Louise Hayward, May, 27, 2015). Consequently, they characterize teacher learning and teacher education as ongoing processes and assessment in teacher education as dynamic in character.

Cochran-Smith (2014) also noted that demographic trends and globalization with increased mobility across national and continental borders leads to more diverse student populations. Indeed, such mobility could be interpreted as a challenge to teachers and teacher education, especially in countries where the population has previously been rather homogeneous, such as in the Scandinavian countries. Teacher education in Norway, for example, does not yet specifically include courses on teaching multicultural and lingual student populations, even though there are many schools, especially in Oslo, where more than 50 % of students do not have Norwegian as their first language. (Consider that situation in contrast to the US where an emphasis on teaching for social justice has been included in policy plans as well as in research for several decades.)

Cochran-Smith's model with its three distinct 'periods of teacher education' and the connected trends can be equally understood in relation to the policy, learning and demographic changes. Even in today's globalized world, the trends are contextual at a national level and are therefore not the same across national borders. Changing perceptions of that which is important in teacher education also leads to changed functions of assessment in teacher education. Likewise, the role which assessment plays in preparing a new generation of teachers is in close relationship to changing perceptions on assessment.

Changing Trends in Assessment

Evaluation and assessment are two concepts that to some might seem interchangeable. To avoid misunderstandings, the concept of assessment in this chapter relates to the activity of learning by individuals as students in school or in teacher preparation or as teachers and teacher educators. Assessment should therefore be seen in contrast to evaluation, which relates to a broader object, such as an organization, institution, programme etc. Smith (Smith, 2010a) notes that assessment:

... is an activity which mainly focuses on learning, processes as well as progress and product. Assessment is therefore likely to be part of most educational evaluation projects as the ultimate goal would be to improve students' learning. Here I find it important to emphasise that it is the students' learning that is being assessed, and not the student as a person. (p. 2)

In the following section, when discussing the many functions of assessment in teacher education, I address the above definition. For some decades we have witnessed a movement in educational assessment discussions that can best be illustrated by frequently used terms such as: Assessment of Learning (AoL); Assessment for learning (AfL); Assessment as Learning (AaL); and, in Scotland specifically, Assessment is for Learning (AifL).

AoL most commonly relates to summative assessment at the end of a learning process with the main function of certification, qualification, and accountability for evaluative purposes of the educational system, the school and so on. In turn, assessment focuses on the extent to which external standards have been met. AfL, however, has a classroom and individual learner perspective, and assessment is more often seen as a pedagogical tool to enhance learning. Grades become less important whereas the information elicited by oral or written assessment are applied by learners and teachers to strengthen learning. AaL reflects similar functions to AfL, but AaL more strongly emphasizes the involvement of learners in assessment, using assessment as a learning activity as well as an assessment. For example, AaL involves students in goal setting and criteria development for assessment, and invites them to assess their own and their peers' learning processes and learning outcomes.

David Boud (2014) calls AaL sustainable assessment that looks at learning as a life-long learning process. The term AifL is most often used in Scotland in relation to the Curriculum for Excellence (Hayward, 2015). In Scotland assessment merges with the curriculum and teachers, local authorities, researchers and policy-makers work together to develop shared understandings of the symbiotic relationship between assessment and learning. Hayward claims that by using prepositions to connect assessment and learning (of, for, as) there is a danger that the main focus causes a separation between the two processes with emphasis on function not learning. So, Hayward suggests the deletion of prepositions and to therefore simply recognize assessment as learning.

The starting point of the various terms briefly described above, is that they are all rooted in the long-standing discussion around summative and formative assessment. We can find the origins of formative assessment in Scriven's work from 1967 where

he highlighted the distinction between formative and summative evaluation of educational programmes. Scriven used the term evaluation, as he did not focus on the individual learner in his work. Two years later Bloom (1969) used the same concepts when discussing student learning and claimed that formative assessment provided, "... feedback and correctives at each stage in the teaching-learning process" (p. 48). Teachers use this feedback to revisit plans for instruction while learners become active agents in their own learning (Sadler, 1989). In 1998 Black and Wiliam's review study identified the positive impact of formative assessment on student learning and achievements and it became a wakeup call for educators and policy makers around the world.

In the UK a group of enthusiastic and well-known researchers formed the Assessment Reform Group (ARG) that became the leading voice arguing for assessment as a pedagogical tool for learning and not just a summative instrument for measuring students' achievement. As the concept 'formative assessment' became more popular, the ARG worried about the misuse of the term – especially by policy makers. Formative assessment became a superficial term translated into a set of techniques, and the pedagogical rationale behind it, looking at the functions of assessment and how these support learning processes became less important, and the extent of student involvement in their own learning seemed lost in the function. At the turn of the millennium the ARG started to use the term 'Assessment for Learning' (Broadfoot et al., 1999, 2002).

Just as assessment issues developed in the United Kingdom, so too they occurred in the United States. Rick Stiggins (2002, 2004, 2005) and Sue Brookhart (2008) represented the leading voices in US, but they were not alone. These voices were strong and in opposition to the intensified testing regime in the US education system. ARG in the UK connected educators internationally, including Crooks (1988) and his team in New Zealand (1998). In Australia, Sadler (2005) together with Wyatt-Smith and Klenowsky (2010) voiced clear opposition to an overuse of external testing and standardized exams. Numerous other international researchers engaged in the effort to change the focus of assessment from summative measurement to pedagogical uses. These researchers looked for ways to balance these competing views – to attend to student learning and to meet external demands for standards and criteria – and place assessment at the heart of teacher education.

Thus, there has been a changing focus in teacher education and assessment in relation to each other. In the 1980s teacher education had a learning focus with formative assessment and AfL embraced by educators as well as by policy makers. However, by the 2000s, teacher education had a strong policy focus with an increased movement toward standards for teaching and learning. This trend opened the way for standardized testing and measurement for accountability purposes in both teacher education and in the school system. Interestingly, in assessment discussions, tensions between a focus on measurement and a focus on policy continue to exist, with stronger support for measurement, at least in Norway. A possible explanation comes from a lack of awareness in the teacher education community of the close relation between assessment and learning and teaching. In the following section I explore this relationship in more detail.

Functions of Assessment in Teacher Education

Assessment is an integrated part of teachers' work and responsibilities, and so the questions to be addressed are: "Have prospective teachers been prepared for these responsibilities during their teacher education programme?"; "Have they become assessment literate (Engelsen & Smith, 2014) and competent to analyze assessment information, to practice various forms for assessment for different purposes, and to integrate assessment with teaching and learning activities to empower the learner and strengthen the learning processes?" and, "To what extent do teacher educators themselves model assessment literacy, and are they able to teach assessment to teachers to be?" These questions are not frequently discussed in the teacher education literature, and this is, I believe, a shortcoming with many teacher education programmes in Norway as well as elsewhere (Smith, 2011b).

Functions of assessment in teacher education are multiple and complex, and in the discussion that follows a structured overview of the many functions are presented and illustrated by a model. Whereas some functions of assessment in teacher education are explicit, and can be found in various national contexts throughout the world, other functions may be more implicit in the process of educating teachers, e.g., supporting the change of identity from student to teacher and to start thinking and behaving like a teacher. The various functions assessment holds in teacher education are also carried out, or practiced, by different actors, within and outside teacher education. It is not always clear or logical who assesses what and why, e.g., what are the assessment roles of university based teacher educators, school based teacher educators, professional organizations and external bodies?

Explicit Functions of Assessment in Teacher Education

Gatekeeping

Teacher education prepares student teachers for a profession, and graduates from teacher education have to be qualified to act as professionals, having the knowledge, skills and competence to practice the profession. So, a major function of assessment in teacher education is to serve as a *gatekeeper* and quality measure to ensure that graduates are competent to take on the huge responsibility of educating future generations and to function in, and contribute to, the development of the nation and the world. The gatekeeping function is performed in different ways, and today in many contexts internationally, standards for teachers have been formulated and applied.

The OECD has been active in providing information about education and teacher education internationally, and the organization published a cross-national comparison of the use of standards in education, including for teachers, in a recent document (OECD, 2013). The document described how the assessment of teachers is practiced in: Victoria, Australia; British Columbia, Canada; California and Texas,

United States; England; Mexico; and, New Zealand. It is not within the scope of this chapter to expand the discussion on the standards presented in the various countries, the point of noting the OECD report is more to show that standards for teaching is a global trend and clearly serves the function of assessment as gatekeeping in teacher education. The purposes of assessment are high stakes, for certification and qualification, and standardized tests are being used together with portfolio assessment and shared assessment responsibilities with the practice field. The responsibility for assessment lies with governmental authorities, professional bodies and teacher education institutions.

When teacher candidates' competence is assessed by someone externally, in an 'objective manner', the danger of reducing the comprehensive professional competence of a teacher to a list of competencies increases. Within a limited time slot teaching skills are being ticked off, in the simplified assumption that if all the listed competencies are marked, the candidate is ready to be given responsibility for educating future generations. Sandholtz and Shea (2012) found that standardized performance assessment of teacher candidates varied from the assessment done by the students' supervisors in school who worked with the candidates over a longer period.

Sandholtz and Shea (2012) suggested three main explanations for the difference in assessments. First, performance assessment and supervisor-based assessment relied on different data sources, e.g., ongoing observations by the supervisors and scoring in relation to pre-decided written statements by the external assessor. Second, there is an issue with time: supervisors observe the processes of learning how to teach over time, an external assessor observes teaching performance in a tense situation within a fixed, usually rather brief, period of time (this is, in fact the difference between formative and summative assessment). Third, supervisors are able to collect assessment data from authentic teaching contexts which constantly change, and the student teacher has to respond to the unexpected situations that arise as a consequence. External assessors are likely to only see a preselected segment of the lesson.

Sandholtz and Shea (2012) did not reject external standardized assessment of teaching, but they claimed that much valuable information about a candidate's competence is lost in 'one shot' assessment snapshots. They therefore recommended using multiple data sources for the gatekeeping function of assessment in teacher education. Many countries carry out assessment in relation to explicit standards for teaching. In contrast, teacher assessment in Mexico is mainly for formative purposes – in the form of self and peer/collegial assessment.

In Norway, until 2010 detailed standards for teachers did not exist but the National Framework for Teacher Education introduced by the Norwegian Ministry of Education and Research (2003) referred to five competence domains novice (and all) teachers, these included:

- Subject matter competence;
- Didactical competence;
- Social competence;
- Change and developmental competence; and,
- Professional ethical competence.

However, Higher Education institutions were left to determine for themselves how to implement and assess these nationally recognized competences in teacher education. Since 2000, the situation has shifted and today there are detailed lists of the knowledge, skills and general competences all novice teachers must document in addition to similar lists for each specific content area (Norwegian Ministry of Knowledge and Research, 2013b). Interestingly the national framework does not mention how to assess whether or not the preservice teachers acquire the competences.

Standards serve teacher education by presenting a transparent agreement of what is important in the teaching profession, specifically in terms of knowledge and skills teachers must possess (Delandshere & Arens, 2003; Ingvarson & Rowe, 2008; Peck, Gabella, Sloan, & Lin, 2014; Wilson & Tamir, 2008). Standards are needed for any assessment (Sadler, 1989), particularly when assessment serves the function of gatekeeping. Moreover, assessment can be used for professional development purposes as they present clear goals to guide professional development.

Standards can also inspire professional discussions among various stakeholders of education, such as policy makers, researchers and practitioners (Darling-Hammond & Ball, 1998; Delandshere & Arens, 2003). However, in the international literature we also find criticism of overuse of standards and the impact implementing them in teaching and teacher education in a reductive way (Cochran-Smith, 2001; Stronach, Corbin, McNamara, Stark, & Warne, 2002). Another criticism of the potential overuse of standards is the perception that the required quality of teaching can be precisely defined and made applicable across contexts (Smith, 2005; Smith & Tillema, 2007; van der Schaaf & Stokking, 2011). Teaching is highly situational, and that which might be seen as good and effective teaching in one situation might turn out to be unsuccessful in a different situation. Thus situational knowledge is a central component of teacher knowledge which cannot be confined to specific standards (Smith). van Manen (1991) called this non-cognitive knowledge of teaching and Rodgers and Roth (2006) described it as presence in teaching:

A state of alert awareness, receptivity and connectedness to the mental, emotional and physical workings of both the individual and the group in the context of their learning environments, and the ability to respond with a considered and compassionate best next step. (p. 265)

The experienced Finnish teacher educator, Sven-Erik Hansén, in a collegial dialogue, introduced me to the concept of *teachership*; something so much more than what can be measured in terms of subject and pedagogical knowledge and a 'countable' repertoire of teaching techniques. *Teachership* is about thinking, feeling and acting as a teacher beyond pedagogy and the subject didactics. Stephens, Tønnessen and Kyriacou (2004) actually warned against placing too much emphasis on the evaluation of teaching competence of techniques and theoretical knowledge which can be seen as the Achilles heel when using measurable standards and standardized high stakes testing in a gatekeeping function.

Paul Otto Brunstad, another colleague, noted in a discussion we had about detailed explicit standards in assessing professional practice that, “*You can do all the right things without getting it right, and you can get it right without doing all the right things.*” This summarizes well the danger of depending too much on standards when assessing professional competence, and at times creativity and improvisation are needed to handle unexpected situations, none of which can be expressed in a list of explicit standards. The recommendation in this chapter, which is supported by other researchers (for example, Peck, Gabella, Sloan, & Lin, 2014; Sandholtz & Shea, 2012), is that teaching is a complex task and a single measure cannot alone provide for a comprehensive understanding of a candidate’s teaching competence and skills.

Assessing Practice Teaching

In most settings a major component of teacher education is the role of supervision by school-based teacher educators, mentors, practice teachers, etc. This gatekeeping function of teacher education cannot avoid taking student teachers’ clinical performance into consideration for certification, yet questions about the assessment of the practicum do not have straightforward answers (Smith, 2007). What to assess in the practical component of teacher education is an issue which deserves further consideration. So the question arises: “Should we look for the acquired quality of teaching at the end of the practicum, or should we look for the progress the student teacher has made?” A hypothetical situation can be that a student teacher starts the practicum at an acceptable level but seems to add little to the development of teaching practice during the practicum. The quality of teaching is adequate, but static throughout the practicum. What would an assessment look like to support the progress for such a student teacher?

If feedback from school-based teacher educators has not been included in ‘assessing’ the student teacher’s practice, then should this student pass the practicum; especially if there is little evidence of professional growth? In contrast, consider another student teacher who starts the practicum at a very low level and has a long way to go before achieving the expected teaching competence. However, by the end of the practicum the student is close to the required level, but just not quite there. For this student teacher noteworthy progress may be clear along with a willingness to take up feedback and suggestions offered. Should this student pass the practicum?

In looking into the assessment literature for answers to these types of questions, Sadler (1989, 2005) argued that it is the level of accomplishment at the end of a learning process that should be assessed when assessment is summative. So, in the above scenarios the first student teacher would pass and the second student would fail. However, as a teacher educator and pedagogue such an outcome seems questionable because from my perspective, I would like to see emerging teachers demonstrate an ability to learn from mistakes and feedback being the starting point of a career long professional development process. Thus I choose to look at the

formative aspects in the assessment literature and see teaching as a first phase in a career-long learning process (Boud, 2012; Butler & Winne, 1995; Hattie & Timperley, 2007; Sadler, 1989; Zimmerman, 1989). Student teachers who learn from feedback are likely to continue to develop as a teacher as they show evidence of benefiting from work-based learning. These are the teachers I would like to have in my teaching staff, so I would give the second student a pass for the practicum. Such dilemmas are common in terms of a serious consideration of assessment about teachers and teaching.

Another issue that points to the complexity of assessing teaching is how to engage in the assessment process itself. Should it be through examination or should it be through continuous assessment during the practicum supported by self-documentation such as a teaching portfolio? An examination would be a high stakes assessment, and the danger comes from the performance in which a student might engage, perhaps in cooperation with the school-based teacher educator. In contexts with explicit standards for teaching, it is likely that the candidate would make sure to address as many standards as possible. On the other hand, continuous assessment attends to progress in student and teacher learning and promotes active student participation in the assessment activity (Smith, 2010b).

During the practicum students confront an identity shift from student to teacher. Change takes time. Teachers and student teachers have to be cognizant of these changes and accept some ownership for the changes (Engelsen & Smith, 2014; Timperley, Wilson, Barrar, & Fung, 2007). Professional development portfolios have been seen to enhance reflection and professional learning (Smith & Tillema, 1998), however when attempting to meet imposed standards as a main goal for learning, even the use of portfolios loses much of its individualized and reflective character (Smith & Tillema, 2007). The complexity of assessing the practical component in teacher education suggests that there is no right or wrong answer and could be seen as a dilemma that needs to be discussed and seriously considered by all stakeholders of teacher education. It seems reasonable to suggest that the aim should be to find a balance between looking at the achieved competence in teaching at the completion of the practicum and look to the observed progress throughout the practicum. Stakeholders in teacher education need to engage in dialogue to best maintain a 'trusted' assessment in terms of gatekeeping in teacher education.

Assessing Suitability for Teaching

In the Norwegian context there is an additional aspect of teaching that is included in the gate-keeping function – the suitability aspect. This fuzzy concept makes it difficult to assess. With only one formal requirement – a confirmation from law enforcement that the preservice teacher has no criminal record – there are different definitions for suitability criteria found in the regulations of suitability in teacher education (Norwegian Ministry of Education & Research, 2006, §3). The points listed include: lack of will or ability to show care and lead learning processes of children; lack of ability to recognize the learning context; and, to create an

environment that maintains children's safety along with physical and mental health. Additionally, preservice teachers are expected to serve as a positive role model for children and be able to communicate with children and adults.

If a student has problems functioning in the environment or does not show self-insight, the student is not seen as suitable to be a teacher. Finally, if the preservice teacher fails to show openness to change, teacher educators can stop the student from entering the teaching profession.

Assessing these issues addressed in the regulation is hindered by vagueness of constructs, particularly as related to personality issues, not academic competence and skills (Brun & Carson, 2011). Wayda and Lund (2005) from the USA have examined student teachers' dispositions in their work of developing rubrics to address students' suitability for the teaching profession. These researchers construct the concept of suitability by dividing it into value categories related to learning and knowledge, to diversity, collaboration, professionalism and personal integrity. They have developed statement criteria as assessment guidelines for four benchmarks from unsatisfactory to distinguished related to each category.

This rubric is a tool for students engaged in self-assessment, but it can very well be used by other assessors who have the difficult task of assessing suitability for teaching in teacher candidates (Wayda & Lund, 2005). Interestingly, the New Zealand Teachers Council (2003) has an explicit code of ethics for teachers (which Norway does not have), with which student teachers have to become familiar and act accordingly to be registered as teachers.

Suitability for teaching is an issue that is addressed in various international contexts; however, it is a blurred and abstract construct that makes it difficult to assess. Despite the challenges inherent in the gatekeeping function of assessment in teacher education, suitability for teaching inevitably attracts serious attention as it is perceived by some as being at the heart of the profession.

Teaching Assessment

A final explicit function of assessment in teacher education relates to the preparation of preservice teachers as assessment-literate teachers in terms of assessing their students' learning. Formative as well as summative assessment is, perhaps, one of the teacher's most valuable pedagogical tools to promote student learning. Assessment is part of pedagogy as well as of content methodology and inherent in a teacher's professional knowledge or practice. Thus learning about assessment and developing assessment literacy should be part of any teacher education programme. In fact, I would argue that it should be a separate introductory course that provides a basic understanding of the pedagogy in assessment and the various functions of assessment, whereas more specific assessment instruments and activities would be integrated into content method (didactic) courses.

In the teacher education programmes with which I am personally familiar (i.e., Israel and Norway), two different approaches are used. In Israel, at the institution where I worked, we developed a separate course called assessment as a pedagogical

tool for all teacher education programmes replacing a more traditional course on measurement and statistics. At the master level they offered more advanced courses in assessment for learning. In Norway, my experience is that assessment information is conveyed in a two hour lecture and in a follow-up seminar of four hours along with discussion of content pedagogy (i.e., integrated into an aspect of the programme, not a stand-alone feature).

Other examples include: the University of Auckland which offers Assessment for Learning and Teaching as a separate course (see, <http://www.education.auckland.ac.nz/en/for/future-undergraduates/study-options/programmes-and-courses/fu-course-information/course-betch-primary.html> for further details). Mary Hill, a teacher educator at the University of Auckland, explained to me that assessment courses are offered for preschool as well as primary school teachers, and in secondary education assessment is 'built into' several of their courses. At the University of Queensland students are expected to complete two compulsory courses on assessment and discipline specific assessment courses are covered within the discipline units (Lenore Adie, personal communication).

Further to this, a Swedish colleague, Anders Jönsson, informed that in Sweden there are various practices at different universities, but the trend is that pre-school teacher education offers specific assessment courses, but there are no such courses in the primary and secondary school teacher education programmes as assessment tends to be included in discipline didactic courses. The situation in Finland is similar with information regarding assessment presented in discipline didactic courses. However, students have frequently expressed a need for learning more about assessment (Sven-Erik Hansén, personal communication).

According to Ruben Vanderlinde from the University of Ghent in Belgium, assessment is part of general primary and secondary didactic courses, whereas pre-school teacher education assessment is addressed in a separate course with a focus on how to observe children and their learning. In England assessment tends not to be a separate course, rather students might attend a core lecture or two on the topic of assessment, with further elaboration offered by subject teachers at the University and in schools by school-based teacher educators (Gerry Czerniawski, personal communication). At the University of Stirling, Scotland, assessment is explicitly mentioned in the course title (<http://www.stir.ac.uk/undergraduate-study/course-information/courses-a-to-z/school-of-education/education-primary/>) whereas at Stanford University assessment is not explicit in any of the course titles (<https://gse-step.stanford.edu/academics/elementary/curriculum-outline>); however, that does not mean that assessment is not built into other courses.

DeLuca and Bellara (2013) examined the alignment of three different data sources in ten teacher education programmes in Florida. They drew on data from preservice policy documents, professional standards, and the course curricula developed in the various institutions. They found alignment between course content and professional standards, whereas policy documents provided an overall framework for more detailed information. The authors acknowledged the advantages of professional standards as informing about required competence in assessment. However,

they questioned whether one single course would sufficiently develop student teachers' assessment competence.

DeLuca and Bellara (2013) claimed that in specific assessment courses the more formal aspects of assessment such as fairness in measurement are discussed, whereas pedagogical and affective aspects of formative classroom assessment might be lost. Therefore they recommended the integration of assessment issues into all courses with a special emphasis to be included in the practicum.

This brief account from international colleagues (above) suggests that assessment as a separate topic is more common in pre-school teacher education than in education of teachers for older children. Moreover, it seems that in countries, like New Zealand and Scotland, where the implementation of assessment is an integral part of teaching and perceived as a pedagogical tool to enhance learning, assessment is explicitly taught during teacher education. Assessment competence is required for teachers and frequently mentioned in standards for teachers throughout the world, including Australia (<http://www.aitsl.edu.au/australian-professional-standards-for-teachers/standards/list>), England (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301107/Teachers__Standards.pdf), and California (<http://www.ctc.ca.gov/educator-prep/standards/CSTP-2009.pdf>). Hence it would appear as though assessment should be included as an explicit course in the education for teachers. One might wonder why this is not the case. Is the reason that in many teacher education institutions there is a shortage of expertise in assessment to teach assessment courses (Smith, 2011a), or is it a question of discrepancy caused by a lack of communication between 'standards communities' and 'teacher education communities'?

Implicit Functions of Assessment in Teacher Education

Modeling Assessment

Regarding implicit functions of assessment in teacher education I now draw attention to the hidden messages that students receive about assessment during their education. These messages come from their theoretical studies at the university and from the clinical component of their learning about teaching during the practicum. During teacher education students receive ongoing feedback on their academic and practical performances and feedback plays a central role in forming their teacher identity, their self-knowledge, and self-awareness as teachers. Self-knowledge is an understanding and acceptance of 'what you know as a teacher' in terms of academic knowledge and practical skills (Eraut, 1994) as well as the ways in which one regulates their own learning as a student of teaching and later as a teacher (Zimmerman, 2000). Kelchterman (2005) used the concept of self-understanding to explore 'how you see yourself as a teacher'. Self-understanding also includes awareness of one's actions, dispositions and goals; it is about sensitivity to context and perceptions of one by others (Korthagen, 2004). When acting on this awareness, students become

active agents in their own professional learning driven by a self-understanding of who they are and who/how they want to be as teachers. In so doing, they become self-regulated learners of teaching (Zimmerman).

Feedback from significant others, e.g., teacher educators and peers, mixes with self-feedback, both of which influence self-understanding (Butler & Winne, 1995; Nicol & Macfarlane-Dick, 2006). Sadler (2010), in referring to Carless (2006), explicitly stated that, “Formative assessment and feedback should therefore empower students to become self-regulated learners” (Sadler, p. 536). Sadler argued for the importance of peer and self-assessment to develop assessment literacy among students and to help them understand their own and others’ learning processes and achievements.

If teacher educators model how to involve students in assessment practices during teacher education, then it would seem likely that student teachers would gain a deep understanding of the pedagogical aspects of assessment as well as ways to integrate the assessment of their own students into their teaching practice. Clearly, an implicit function of formal assessment (grades) and informal assessment (feedback) is found in the messages that preservice teachers receive and address in the process of becoming a teacher.

It is important that teacher educators are aware of these hidden messages because they serve to model ways of being and teaching – whether intended or not. Modelling in teacher education has attracted increased attention in the last decade (Loughran & Berry, 2005; Lunenberg, Korthagen, & Swennen, 2007), and the importance of articulating the thoughts that underpin actions to make professional reasoning accessible to preservice teachers, has equally been recognized and some have argued that it is a simple task for teacher educators to undertake (see for example, Smith, 2005).

The assessment practices that student teachers are exposed to during their teacher education programme tend to be implicit in practice. However, it is clear that modeling assessment during teacher education could enhance student teacher learning about assessment in new and powerful ways if it were explicit; for example, by explaining to student teachers why a certain assessment tool was used, explicating ways of giving feedback, and so on.

Modelling assessment is not only inherent in the institution-based teacher educators’ practice; it is even more so when looking at the preservice teachers’ assessment practice with their own students in schools. If the school has a test-focused assessment approach, and the student teachers observe teachers who teach-to-the-test, then they are likely to carry that implicit learning from their practicum with them into their own future teaching. Alternatively, if the schools assessment culture focuses more on meaningful learning and practicing various forms of formative assessment, then that is the implicit message that is likely to be taken during the practicum.

There is ample evidence that a significant component of teacher education is the practicum (Grossman, Hammerness & McDonald, 2010; Smith & Lev-Ari, 2005), and is expanding in some contexts, e.g., in England (Murray & Passy, 2014) and in Norway (Norwegian Ministry of Education & Research, 2013b). Thus school-based

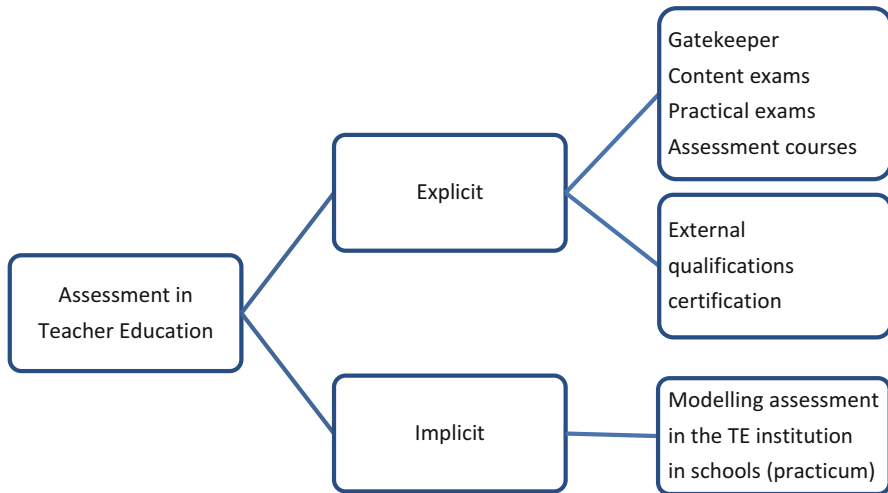


Fig. 26.1 Functions of assessment in teacher education

teacher educators modelling of assessment practices can implicitly inform future teachers' dispositions to, and practices of, assessment.

In a recent doctoral thesis from the University of Auckland, Gayle Evers (2014) examined how preservice teachers experienced learning about assessment during their teacher education programme. She found that understanding assessment and changing normative views on assessment from negative to positive developed through the specific assessment courses. In addition she found that the way students experienced assessment in teacher education as well as how it was modelled by teacher educators influenced how these students perceived assessment and felt prepared to take on the responsibility of assessment as teachers.

Figure 26.1 illustrates schematically how explicit and implicit functions of teacher education might be understood in relation to assessment in teacher education.

As the discussion (above) makes clear, functions of assessment in teacher education are both explicit and implicit. The explicit functions can be viewed as relating to gatekeeping functions in terms of summative assessment of content courses and the practicum, and in some contexts special courses on assessment are also included. Included in the explicit function is the influence that external qualification and certification requirements might have on learning at the end of a teacher education programme and through induction. The implicit functions are mainly found in the assessment practices student teachers are exposed to during their education (modelling), alongside the assessment culture they observe in schools. The multiple functions presented in the above model are enacted by different assessors, therefore who the assessors are in teacher education is also an important factor in shaping the nature of prospective teachers' learning about assessment.

Assessors in Teacher Education

The explicit function, such as assessment of academic achievements, is mainly the responsibility of the university-based teacher educators. They are those who teach the courses as well as assess achievement in content and education courses. University faculty assess the theoretical aspects of teacher education, 'the what' student teachers have to know to be qualified as teachers. Assessment of learning in the theoretical courses is similar to assessment in higher education in general, with the complexity of how best to practice assessment in tertiary education.

This is a composite issue in itself as the form of assessment impacts the way students approach learning (Gibbs & Simpson, 2004; Nicol & Macfarlane-Dick, 2006; Snyder, 1971). If the assessment is mainly conducted as a final exam at the end of the course, it is likely students will cram for the exam – which might have a negative impact on deep learning. If, on the other hand, assessment involves students as active assessment agents during the course, learning is likely to have a more long-term effect (Boud & Falchikov, 2007). In many institutions, university faculty teaching the theoretical courses (i.e., cognate fields such as science, languages, literacy, numeracy, etc.) in teacher education do not perhaps draw the parallel between the impact their assessment practices have on student learning and the way future teachers will practice assessment as a consequence.

Further to this, with regard to the qualification and certification of teachers, higher education institutions, local or central authorities and/or professional organizations also perform a role as assessors. In Scotland, for example, it is the General Teaching Council Scotland that finally grants full registration of teachers after the induction period (Hulme & Menter, 2010), whereas in Norway the higher education institution issues the qualification papers.

As discussed in the previous section a central component of teacher education takes place in schools, and the assessment of students' practice teaching involves school-based teacher educators e.g., practice teachers (mentors), as well as the school principal, other teaching staff and even the students. It is mainly the school-based teacher educators that are directly involved with assessment of student teachers' practical learning, a responsibility which it has been illustrated; many find difficult (Smith, 2007). The tension between acting as a supporter of student teachers' development during the practice period and being a gatekeeper for the system and the profession creates an uneasy duality of responsibility. A common solution is to leave the final responsibility of assessment to the higher education institution and its representatives. However, that this might harm the validity of assessment of the practicum:

If information collected by school-based educators does not create the foundation for assessment, the validity of assessment is at stake, as school-based teacher educators are the ones who know the context of teaching and should be able to assess the appropriateness of actions in that specific setting. They accumulate more practical and non-documented evidence of the student teachers' various teaching performances and serve as partners in the student teachers' reflective dialogue. (Smith, 2007, p. 283)

In contexts where the responsibility for assessment is not solely in the hands of the school-based teacher educators and the final decision lies with the university-based teacher educators, assessment can be seen as involving two different cultures – and that can be experienced as challenging (Smith, 2010a). In the Norwegian context the practice teacher (mentor) follows the student teacher throughout the whole practice period in order to observe the development and gains a hands-on perspective of the students' teaching through the actual teaching performance. The university-based teacher educators observe student teachers' teaching two or three times during the practicum, and assess the quality of teaching based on limited information from a very limited number of observations (Smith, 2010b).

It is, however, difficult for university-based teacher educators to leave the responsibility of assessment to the clinical faculty, there can be a lack of trust that school-based teacher educators will make the 'right' decision (Christie, Conlon, Gemmill, & Long, 2004). I would argue that the final responsibility for assessment of the practicum should be with the school-based teacher educators, and that they have to be prepared to take on this important assessment responsibility. But, it is a complex task as there is a balance between being a supporter and an assessor, and again, that can be experienced as stressful (Smith, 2007).

As the discussion (above) demonstrates, the actors that carry both formal and informal assessment responsibilities are multiple and they carry with them their specific cultures and dispositions which impact the form of assessment, that which is to be assessed, and the criteria applied. Assessment in teacher education is multi-faceted and to a large extent contextualized because teaching is situated practiced, yet the many inherent challenges should not prevent us from voicing them and to continue to search for answers in this rather under-researched domain.

Conclusions

In this chapter functions of assessment in teacher education have been discussed in relation to various foci of teacher education from 1950 and until today (Cochran-Smith, 2004), alongside changing perceptions of assessment within the same time-period. When teaching was viewed as a craft (training-focus, 1950–1980), and teacher education aimed at training teachers to master a set of teaching techniques, the leading trend in assessment was summative and assessment was mainly concerned with how to measure knowledge and skills.

In the 1980s, when teaching was seen more as reflective practice and highly contextual (Cochran-Smith, 2004), measuring the mastery of a set of techniques was no longer a meaningful approach to assessing the quality of teaching. In this period, formative assessment and assessment for learning (Sadler, 1989) became central in the assessment literature. The tension between formative and summative assessment, between contextualized and external assessment (Stiggins, 2002; Tittle, 1994) was frequently addressed in the literature during this period. The developing trends in assessment aligned with the emerging trends in relation to teaching and

teacher education, and portfolios, for example, became a popular assessment tool in teacher education as they were perceived as embracing reflection, development and illustrative of student teachers' achievements (Smith & Tillema, 1998).

From 2000, as teacher education moved from advocating learning and reflection to a policy focus emphasizing accountability (Cochran-Smith, 2004) and standards for teaching were developed in many contexts worldwide, new trends in assessment emerged. Standardized testing for accountability purposes became more and more common; something that was not in full accord with the views of many educators (Amrein & Berliner, 2002).

Testing for teachers' knowledge is becoming more widespread, yet this work is still under-researched. Gitomer and Zisk (2015) recently proposed a promising design for how to assess teacher knowledge. First they presented a comprehensive review of assessing teacher knowledge as support of their model which is built on the understanding that teacher knowledge is divided into three areas: (1) teachers' knowledge of what students should know about a certain domain; (2) what teachers themselves have to know about this domain; and, (3) what teachers need to know about teaching and learning the domain. Furthermore they argued that to capture teacher knowledge various assessment tools need to be used, and multiple choice tests, as well as performance tasks, are relevant alongside written responses and portfolios to embrace the 'quality' of teacher knowledge. The development of testing teacher knowledge is still a work in progress, and the challenge is to design tests that will also reflect situational aspects of teaching, or the concept of *teacherness* (Hansén) as previously discussed in this chapter. It does lead one to ponder though whether this is genuinely possible?

Grossman, Hammerness and McDonald (2009) introduced the concept of pedagogy of enactment in teacher education based on a set of core practices for teaching. The core practices are relevant to specific contexts and practice experiences serve as a framework for introducing relevant theory. Theory can become meaningful for students as it can help to explain practice, and enactment means that a teaching strategy is applied by the teacher based on professional knowledge and understanding and not as a 'drilled technique'. Assessment strategies applied by teacher educators and taught explicitly and implicitly to future teachers should be built on the same principle, enacting assessment means that the practice is supported by a sound pedagogical understanding. Thus I argue that assessment should be defined as a core practice in teacher education and teacher educators' voice need to be heard in debates about the testing of teacher knowledge.

Functions of assessment in teacher education are multiple, complex and dynamic; influenced by developments within teacher education as well as within the field of assessment – a pendulum constantly swinging from end to end. When the opposing voices of one extreme form (training focus and measurement) become strong and loud, the pendulum can begin to swing back to the learning focus end but may be halted by accountability measures along the way. Where do we want to stop the pendulum?

In recent literature, promising initiatives for ways of balancing the claim for accountability and professional enactment of teaching and assessment are beginning

to be seen. The compound functions of assessment in teacher education deserve increased attention by teacher educators and researchers so that decisions are research informed, promote student learning, and encourage a life-long perspective. Assessment in teacher education is too important to be left to policy makers.

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Chapter 27

The Emotional Dimension in Becoming a Teacher

Geert Kelchtermans and Ann Deketelaere

Introduction

“There is surprisingly little recent research about the emotional aspects of teachers’ lives”, was the opening line Sutton and Wheatley used in 2003 for their review of the research literature (Sutton & Wheatley, 2003, p. 327). Things have changed since then. Over the past 15 years, emotions have been recognized by an increasing number of educational researchers as essential in education and schooling. It has become widely accepted that teachers’ and principals’ work cannot be properly understood without acknowledging its emotional dimension and several attempts have been made to empirically unravel and theoretically conceptualize it (see for example Boler, 1999; Crawford, 2009; Day & Chi-Kin Lee, 2011; Hargreaves, 1998, 2001; Kelchtermans & Hamilton, 2004; Kelchtermans, Piot, & Ballet, 2011; Nias, 1996; Pekrun & Linnenbrink-Garcia, 2014; Samier & Schmidt, 2009; Schutz & Zembylas, 2009; Zembylas & Schutz, 2016; Van Veen & Lasky, 2005). Emotions are no longer treated as mere epiphenomena or inconvenient side-effects of educational actions, but –on the contrary- as constituting, “an integral part of teachers’ lives” (Sutton & Wheatley, 2003, p. 332). In this chapter, we build on this work, but explicitly focus on (and limit ourselves to) teacher education and in particular to student teachers. Or more precisely we seek to answer the question: *what has international educational research so far found out about the emotions in student teachers’ lives, in the process of becoming teachers?*

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If emotion constitutes a central dimension in teachers' work lives –a claim well-argued and empirically grounded in research- than it is plausible to hypothesize that becoming a teacher must be highly emotional process as well. Or as Hobson et al. (2008) concluded from their study in the UK: for many students undertaking an initial teacher preparation (ITP)

had a strong affective dimension, with a whole range of positive, negative and mixed emotions being expressed by trainees reflecting on their experiences. Positive emotions, including feelings of satisfaction and enjoyment, were expressed, in particular, in relation to relationships with pupils, to their (trainees') perceptions of pupil learning, to perceived support and reassurance from their mentors or tutors, and (for some) to their perceptions of their development as teachers ... A range of negative emotions were also expressed by numerous trainees, in relation to their experience of ITP, including, for example, a perceived lack of support from mentors and other teachers in their placement schools, the assessment of their teaching, the ways in which some tutors and mentors provided them with 'feedback', the volume of 'paperwork' they had been provided with and had to deal with, their workload and work-life balance, and their own sense of their development and efficacy as teachers. (Hobson et al., 2008, p. 412; see also Malderez, Hobson, Tracey, & Kerr, 2007)

This extensive quote not only confirms the importance of the emotional dimension in teacher education in the United Kingdom, but is also illustrative for the nature of the phenomenon: the emotions are related to learning processes, curriculum arrangements, pedagogical interventions, and more fundamentally to the relational nature of education and of becoming a teacher. Furthermore it demonstrates that the emotions need to be understood in context, because they are triggered by a wide variety of conditions, interactions and experiences. And their positive or negative valence is dependent on the particular circumstances and sense-making, since the same conditions or factors can trigger either positive or negative emotions.

In the rest of this chapter we will more systematically unpack this complex issue. For now it is important to stress that our research interest in what the literature has to tell about emotions in the process of becoming a teacher can be understood both in a descriptive and a normative or prescriptive way. In its descriptive sense it reflects one's wondering about how emotions play a part in student teachers' experiences, learning and development as they work their way through the teacher education curriculum. In its prescriptive sense the question refers to the consequences of understanding the emotional dimension for the curriculum, pedagogy and organization of initial teacher education (what ought to be done?). Both interpretations of our interest will be addressed below. We will use the distinction to roughly structure the chapter, with an emphasis on the descriptive in the first paragraphs and on the prescriptive in the later ones. Yet, it will also be clear that several authors combine both and while discussing descriptive findings also draw prescriptive conclusions, thus blurring the strict distinction between both.

It also needs to be clear that our analysis is driven by a clear pedagogical or educational interest, rather than a merely psychological or sociological one. From an educational and pedagogical perspective, the exploration of the international literature seeks to understand how to best conceptualize and understand emotions in student teachers in order to improve the arrangements for teaching and learning

during teacher education. In the final section of this chapter we will explicitly come back to this.

By placing the focus of this chapter on student teachers and their emotional experiences during initial teacher education, we purposefully limit our agenda in a double sense. Firstly we did not look into the emotions of teacher educators or collaborating teachers and mentors – although it would obviously have been relevant to do so from an educational or pedagogical interest. Secondly we limit ourselves to the initial teacher training, although the emotional is a fundamental dimension of teachers' professional development throughout their entire career (see also Hargreaves, 1995). These restrictions, however, have helped us to set up and delineate the methodology of our review of the international research literature. We searched Educational Resources Information Center (ERIC), Web of Science, and Google Scholar for publications between 1995 and 2014, and complemented this by screening the literature references in the selected publications. The publication in 1996 of a special issue of the *Cambridge Journal of Education* (Nias, 1996) has turned out to be an important historical landmark for the educational research on emotions and as such justifies our limitation in time to the past two decades. We further limited ourselves to publications in which the emotions were a central element in the study, which in practice means that 'emotion' had to be part of the title, the abstract or the key words of the publication.

In the rest of this chapter we first address some definitional issues. We then discuss research on the relation between emotions and behavior, followed by a more extensive section on the insights from studies taking a more relational, interactive and situated approach. Next we move from the descriptive to the more prescriptive research on the pedagogical conditions and methods to explore and deal with the emotional dimension in becoming a teacher. We end the chapter with a number of overall conclusions and perspectives for further research.

Conceptualizing the Emotional

As soon as one starts reviewing the literature on emotions in teaching or teacher education, one is confronted with a number of problems. Firstly, there is the lack of a commonly shared definition of emotions, which makes it hard to know what precisely is the phenomenon under study. Secondly there is the varied spectrum of very different methodological and theoretical paradigms and perspectives from which emotions are studied, each of which having consequences for the conceptualization of the object of study as well as for its explanatory power. Shuman and Scherer, for example, recently concluded:

Researchers generally agree that emotions are episodes with multiple components that are shaped by evolutionary and social contexts and can be expressed in a variety of ways ... However, it is rather controversial how the different components hang together to form an emotion. (Shuman & Scherer, 2014, p. 19)

Without going into the debate about what is the most appropriate and encompassing definition and conceptualization of emotions –which in itself would need a full chapter in this handbook- we argue that from an educational point of view it is important to at least acknowledge that *emotions are bodily felt, meaningful experiences, triggered by interactions with the material, social and cultural world. As such the meaning of emotions is to a large extent relational, socially constructed and reflecting cultural norms as well as power structures.* Although the experiential aspect of emotions (what is ‘felt’ and what it ‘means’) needs to be acknowledged, we consider it methodologically as the starting point for a more in-depth understanding that also recognizes the inter-personal (social), cultural and political structures and processes that frame the ‘felt meaning’ in particular social-historical contexts. And these, “complex layered social historical contexts are ever changing transactional open-systems, which means there is the potential for continual change and the emergence of new original processes” (Schutz, 2014, p. 2). So, in other words, although individual in their embodied experience, the meaning of emotions is constructed and as such dynamic, rather than fixed:

Emotions are determined not only or even primarily by internal individual (intrapersonal) characteristics, but rather by relationships. Emotions are grounded in the particular social context that constitutes teachers, students and their actions in the classroom. Students and teachers construct interpretations and evaluations based on the knowledge and beliefs they have. (Zembylas, 2007, p. 62)

As such the emotional aspect of experiences not only results from, but in turn also has a deep impact on people’s sense-making of those experiences and –in the context of teacher education- the actual teaching and learning processes that are taking place.

As already indicated, some authors emphasize emotions as an individual or intrapsychological experiences, taking a predominantly psychological approach, whereas others argue that the social, relational interactions are key in understanding their meaningfulness. The latter is for example clearly illustrated in work building on the cultural-historical tradition of Vygotsky that stresses the close interdependence between cognition, emotion, and imagination in practices like learning to become a teacher (see e.g., Fler, 2012). Our stance aims at integrating both, acknowledging that the psychological as well as the sociological perspective can offer valuable insights, to eventually understand the educational meaning of the emotional in teacher education. In other words, and following the position argued for by Zembylas (2007), we want to acknowledge and restore the relation between the body and the experience of the emotion as well as state that emotions are essential in the processes that produce the psychological and the social and as such, “that emotion comes to produce these very boundaries that allow the individual and the group to *interact*” (Zembylas, 2007, p. 63).

To sum up, in answering the question what the literature teaches us about student teachers’ emotions we were driven by a concern for developing a better understanding of the emotional dimension in order to include it in educational theory building and further research as well as in the development of valuable pedagogies in the

practice of teacher education. In other words, the chapter aims to contribute both to the descriptive and the prescriptive agenda implied in our research interest.

Identifying Emotions and Their Link with Behavior

Some authors treat emotions as primarily intra-personal phenomena. For them emotions,

are defined as biologically based states that involve perception, experience, and physiological arousal that also include feelings and thoughts about what has happened or might happen next. The object of emotions may be the self (e.g., feeling helpless, self-pity) or other (e.g., like–dislike, being annoyed). Emotions are an important part of attitudes because humans are not devoid of affect, and emotional experiences predict behavioural responses. (Elik, Wiener, & Corkum, 2010, p. 128; see also Pekrun & Linnenbrink-Garcia, 2014, p. 2)

A first interest of these studies is the identification of discrete emotions and their respective importance in student teachers. Montgomery (2005), for example, presents an inventory of the different emotions expressed by student teachers during their practicum (Canada), categorizing them in either positive or negative emotions as well as according to their source. They found that the relationships with others –i.e., pupils and the collaborating teachers or mentors- are the most important sources for emotions in student teaching, but also that the same sources contributed to both positive and negative emotions.

A second and more frequent research interest concerns the relationship between particular emotions on the one hand and behavior or other individual characteristics on the other (see for example Elik et al., 2010). In the US, for example, Swartz and McElwain (2012) did an observation study of student teachers during an internship in an early childhood care center. More in particular they were interested in the individual differences in student teachers' observed responses to young children's emotions, which they explained by linking them to differences in emotion-related regulation and cognition. However, most of these studies are quantitative survey-studies, looking for correlational relations between emotional variables on the one hand and behavior or learning outcomes on the other. Eren (2014b), for example, was interested in the mediating role of emotional style (defined as consistent, general tendencies to experience, regulate and express emotions), the relationship between student teachers' emotions about teaching (i.e. of enjoyment, anger and anxiety) and their intentions to actually engage in a teaching career. Questionnaire data were collected from 684 student teachers in Turkey and analysed using correlations and structural equation modelling. According to Eren,

Results showed that the prospective teachers expected to experience enjoyment more than anger and anxiety regarding their future teaching. Results also showed that the prospective teachers' attention style and social intuition style played significant mediating roles in the relationships between their emotions about teaching (i.e. enjoyment and anger) and professional plans about teaching (i.e. planned effort and professional development aspirations). (2014b, p. 381)

In another study with a similar set up, the same author (Eren, 2014a) collected data from 455 Turkish student teachers to explore (correlation, regression and structural equation modelling) the mediating roles of hope and academic optimism in the relationships between emotions about teaching and personal responsibility. Study results indicated:

that the prospective teachers' emotions about teaching, academic optimism, hope, and personal responsibility were significantly related to each other. Results also showed that the relationships between prospective teachers' emotions about teaching and responsibility for student motivation, achievement, relationships with students, and teaching were strongly and positively mediated by their academic optimism; whereas the relationships between PTs' [Preservice Teachers'] emotions about teaching, responsibility for student achievement, and teaching were moderately and negatively mediated by their hope. (Eren, 2014a, p. 73)

The psychological research agenda on identifying emotions as well as their relation with behavior is maybe most clearly exemplified in the recent work on student teachers' emotional intelligence. Corcoran and Tormey (2012) measured the emotional intelligence of 352 Irish student teachers, concluding that their scores were lower than average, but with important inter-individual differences. Similar findings were obtained in a study of 210 Romanian student teachers, measuring both emotional intelligence and maturity: somewhat higher (average or slightly above), but also with large inter-individual differences (Dumitriu, Timofti, & Dumitriu, 2014). The interest in the relationship between emotional intelligence and behavior or other psychological characteristics in student teachers is illustrated in a study by Gunduz (2013). He explored the relationship between emotional intelligence and cognitive flexibility with psychological symptoms in a study of 414 Turkish student teachers, concluding that there was a significant negative correlation of both emotional intelligence and cognitive flexibility with anxiety and depression. In another study with Turkish student teachers ($n=248$), Gürol, Özercan, and Yalçın (2010) investigated the relationship between emotional intelligence and self-efficacy and found high positive correlations between both variables. Finally, we mention the earlier work of Vesely, Saklofske, and Nordstokke (2008) in Canada, who trained student teachers' emotional intelligence as a way to better manage occupational stress. However, the results of the student teachers in the experimental condition did not differ significantly from those in the control condition (no training) for stress, anxiety, efficacy, satisfaction with life and resilience. The inconclusive findings might be due to the small size of the sample. But also other studies demonstrated that the relationship between emotions and behavior is more complex and not evidently captured by correlational approaches. Exemplary in that regard is Corcoran and Tormey's (2013) argument –building on the data from their already mentioned study- for emotional intelligence as an important skill set for student teachers. They analyzed the relationship between emotional intelligence and teaching performance, looking also for the possible mediating role of academic attainment and gender. However, no positive relations were found, which brought the authors to conclude that emotional intelligence might best be understood as,

describing a person's capacity to learn from and use emotional information to solve problems in their life. Whether or how that capacity will be drawn upon in any given situation or interaction is likely to result from an interaction between this capacity and the role or identity they are required to assume in that situation. (Corcoran & Tormey, 2013, p. 40)

The relationship between emotional intelligence and student teachers' learning and teaching performance is clearly not as straightforward as one might have expected.

It seems that this mainly correlational approach, treating emotions as discrete variables, reflecting intra-psychological phenomena, which can be described and measured and related to behavior and learning outcomes, is rather limited in its relevance for a more educational research interest in the emotional dimension of becoming a teacher. Teacher education is a relational, interactive and situated practice. Therefore it seems more promising to conceive of student teachers' experiences (also their emotions) as resulting from interactive, constructive sense-making processes in a particular context. Although a wide spectrum of theoretical and conceptual frameworks is used, most studies on student teachers' emotions take this stance, as will become evident from the next sections.

Emotions in the Relational Practice of Teacher Education

In this section we continue exploring the *descriptive* meaning of our central research interest: what can we learn about student teachers' emotions as they go through their pre-service training? More in particular we discuss the relationship of emotions with other elements in the person of the student teacher or in his/her relationships. First we look into the connection between emotions and the way student teachers' conceive of themselves. Next we discuss research on the relationship between emotions and beliefs. Then we address the relationship between emotions and particular subject content. Finally we tap into the multilayered emotional meanings of practical teaching experiences during teacher education.

Emotions and Self-Understanding

Student teachers don't enter teacher education as blank slates. On the contrary: they bring with them about 15 years of experience with teachers and schools. For students who chose teaching as a second career and at an older age this biographical experiential load is even larger (for example their experiences as parents with the teachers and schools of their children). All student teachers have spent many years with many different teachers in different classrooms and schools, creating plenty of opportunities for what Lortie (1975) has rightly labeled as the 'apprenticeship of observation'. No other professional training starts with students bringing with them

such a rich biographical body of personal experiential expertise that is relevant for their professional training. Furthermore and importantly those experiences are not emotionally neutral: they have been positive or less positive, yet in the end at least positive enough to consider and actually start the pre-service teacher education programme. In other words, student teachers' motivation to enter pre-service training already contains and reflects clear emotional elements. Was the choice to start an education to become a language teacher a positive first choice, or rather a second or third after having failed a master programme in linguistics? Or was it the beginning of a long cherished dream coming true, with fond memories of the inspiring teachers one has met as a pupil?

Entering teacher education therefore not only implies embarking on a journey of professional learning and training, but inevitably also demands that one starts developing and constructing a sense of self or identity as teachers. And self-evidently these processes are influenced by the differences in biographical experiences before entering teacher education (see e.g., Atkinson, 2004; Beauchamp & Thomas, 2009; Bullough, 1997; Bullough & Gitlin, 2001; Kelchtermans & Hamilton, 2004; Lamote & Engels, 2010; Raffo & Hall, 2006; Rodgers & Scott, 2008; Timošćuk & Ugaste, 2010). Developing an understanding of oneself as a (future) teacher, as well as a sense of technical mastery to enact it, constitute core processes in student teachers' development as they go through a teacher education programme. As argued elsewhere (Kelchtermans, 2009; Kelchtermans & Hamilton, 2004) – and in line with the teacher thinking-research (Craig, Meijer, & Broeckmans, 2013) – we see this professional self-understanding as part of (student) teachers' personal interpretative framework. This mental sediment of their biographical learning process contains a system of cognitions and representations that act as a lens through which student teachers perceive, make sense of and act in (react to) particular situations and experiences.

In other words, the personal and the professional are closely intertwined in teacher education and as such 'emotionally non-indifferent' (Filipp, 1990). Rots, Kelchtermans, and Aelterman (2012), for example, identified different patterns in the development of Flemish (Belgian) student teachers' motivation for the job during their teacher education and demonstrated how they echoed emotional experiences, especially during internship. Thomson and Palermo (2014) stated that student teachers' psychological attachment to the profession –and as a consequence the likeliness they will actually enter and stay in the job– needs to be understood as partly an, "emotional reaction to [their] learning experiences during student teaching" (Thomson & Palermo, 2014, p. 59). In particular positive emotions of happiness and fulfillment expressed by their mentor teachers was found to have a strong motivating impact. Yet, when student teachers ascribed primarily negative emotions to their teaching experiences during internship (for example experiencing difficulties in building positive relationships with pupils), their impact was equally strong but in a negative sense. Also Mansfield and Volet (2010) found that the emotional quality of the relations with pupils and colleagues during practical teaching internships was of crucial importance for student teachers' job motivation. They further argued that these emotions are often rooted in students' own experiences as pupils.

Memories of emotionally negative experiences in school, strengthened the motivation to build positive relationships with their pupils, hoping to save them from having similar negative school experiences as they themselves once had.

Furthermore the relational nature of teaching and learning to teach not only implies the inevitable involvement of one-self as a person in that process (Nias, 1989), but equally important is the moral and ethical dimension in those relationships: one's commitment to pupils and students, one's normative beliefs about (good) teaching. Finally, there also is a political dimension in teaching and educational relationships: issues of power and influence, of how the predominant or legitimate norms are defined and installed on what is good, appropriate or necessary in teaching (and learning to teach)(Kelchtermans & Hamilton, 2004). Of course all of these don't leave the student teachers emotionally indifferent.

Working in England, Raffo and Hall (2006) combined Bourdieu's concepts of habitus and cultural capital on the one hand with the Lacanian concepts of the symbolic, imaginary and real on the other to unravel and understand the often fitful development of student teachers' learning during internships. Their analysis shows how the search for a stable sense of professional self, partly influenced by former biographical experiences and cultural capital (encompassing among others adherence to particular normative views on schooling, learning, and being a teacher) explains the emotional experiences during different placements (i.e., experience of fitting in and therefore feeling at ease or positive in some schools, while the opposite might be the case in schools with a different ethos and culture).

This importance of student teachers' developing professional self-understanding in causing or explaining their emotions is further documented by Sinner (2012) in her in-depth analysis of one art education student teacher's experiences during her placement in Canada. The placement was found to have been an intensely emotional, 'liminal space' in which the student teacher had to negotiate between two conflicting normative views on teacher education and professional learning (i.e., the inquiry-based approach of the university programme versus the apprenticeship model cherished in the placement school). The normative tensions were further complicated and intensified because of their incarnation in a very present collaborating teacher and an absent university supervisor. Being caught in-between, struggling with her own developing sense of self as a teacher, and negotiating the social and power structures in both places (university versus placement school) were themes in the student teacher's story. They clearly exemplify the constructive and interactionist nature of emotions as well as their entwinement with the moral and the political.

The importance of social dynamics – also in the university programme and not just during placement – is stressed by Karlsson (2013) with her study of the narrative interactions in peer groups of student teachers in Sweden. Her analysis of those interactions permits her to look into the process of student teachers' 'emotional identification' with teacher identities that are culturally available. Drawing on positioning theory, her work problematizes the traditional focus on the individual and the underestimation of context in understanding the emotional in learning to become a teacher and argues in favor of understanding emotions as the outcome of negotia-

tion processes. The same argument is made by Lanås and Kelchtermans (2015) in their analysis of the subjectification processes of Finnish student teachers. Having them reconstruct and explain how they (thought they) got accepted in the teacher education programme (given the very strict selection policy in teacher education in Finland), the authors conclude that even in the absence of formal job definitions or lists with required competencies or quality control systems, student teachers bring with them particular normative understandings of what it means to be a (good, Finnish) teacher as they enter teacher education. Inevitably they have to position themselves towards these ideas as they are developing their sense of professional self. Stemming from a post-structural tradition, this concept of subjectification implies an ongoing process of shaping and re-shaping of one's self-understanding in relation to the discursive and material environment. As such the concept reminds us of the fact that the construction of one's sense of self or identity is not entirely a personal or free creation, but is per definition also framed by the discursive positions available in a particular context. In other words, the shaping implies navigating and negotiating different normative ideas about what makes a good teacher as well as playing the power of the selection system (for example, the emotional work of representing oneself in a particular way that is thought fit for the purpose). All these processes leave the ones involved emotionally non-indifferent.

The same point is made by Raffo and Hall (2006), as well as Bloomfield (2010). Drawing on Britzman's claim that becoming a teacher is a struggle for voice (Britzman, 2003), the latter author argues for the need in teacher education to critically analyse the interplay of biography, emotion and institutional structures (the three dimensions of voice according to Britzman) in student teachers' journey through the teacher education programme. More in particular, she makes the point that what student teachers publicly share about their experiences is filtered through their evaluations of and negotiations with prevailing norms and expectations. Eventually these insights constitute arguments for a pedagogy of teacher education that goes beyond the development of technical and instrumental skills and expertise, to include the more difficult and uncomfortable aspects of student teachers' learning like for example their professional self-understanding.

In the same line of argument Rivera Maulucci (2008, 2013) reminds us that the negotiations on professional identity at the microlevel of individual experiences in classrooms should be understood in their relation to the meso- and macro-level realities of the school as an organization as well as the wider developments in society (i.e., globalization, immigration). She makes her case exemplifying the interplay of those different levels with data from a study on the experiences of student teachers in a teacher education programme with an explicit social justice agenda in New York. Presenting an in-depth analysis of one student teacher, she illuminates the emotional tensions between the development of an identity as a teacher with other identities (for example immigrant identity). Rivera Maulucci's work further resonates with conclusions by Bühler, Gere, Dallowis, and Haviland (2009) from their detailed reconstruction of US student teachers' first attempts to enact cultural competence in their teaching, as well as the emotional significance of these experiences. They argue that: "teacher educators would be wise to focus not on the

achievement of cultural competence, but rather on the struggle involved in enacting it” (Bühler et al., 2009, p. 416).

The emotionally laden tensions, negotiations, and power processes in general, documented in these studies exemplify the essentially political nature of learning to be a teacher and how it is interwoven with the emotional as well as the development of professional self-understanding. More in particular they demonstrate that understanding emotion in teacher education demands an awareness of and alertness to the ethical or moral and political dimensions in teaching and learning to be a teacher. In other words, a merely technical pedagogical perspective on student teachers’ development, without acknowledging the essential role of the self-understanding runs the risk of simply missing the point or –even worse- of unconsciously contributing to existing practices and structures of inequality, injustice and oppression. An example of the subtle perversity in which emotions and the politics may be intertwined can be found in a study by Matias and Zembylas (2014) in the USA. They found that in teacher education a particular emotion may be disguised into another and as such may jeopardize efforts to train future teachers with the ideals of social justice and equity. More in particular they argue that, “one of the modalities through which racialized emotions are performed in politically correct and socially accepted ways is the example of caring as hidden disgust” (Matias & Zembylas, 2014, p. 321). Systematic ideology critique from anti-racist theory is used by these authors to thoroughly analyze and unmask the perverse face of apparently valued emotions like love, care and empathy.

To sum up, as student teachers inevitably have to engage in a process of developing an understanding of themselves as teachers, it is important to understand how this involves navigating and negotiating former biographical experiences, normative images and discourses on good teaching, as well as power structures. All of this is highly emotional and these emotions strongly impact the outcomes of this process in terms of student teachers’ self-understanding, but also the well-being, one’s feeling ‘at home’ in the profession and-as a consequence- one’s motivation and self-confidence towards teaching as a profession.

Emotions and Beliefs

The result of the apprenticeship of observation in student teachers is not only that they develop a particular understanding of what it means to be a teacher and a sense of themselves enacting that profession (professional self-understanding), but also that student teachers enter teacher education with a personal system of knowledge and beliefs. This subjective educational theory – as we labelled it (Kelchtermans, 2009; Kelchtermans & Hamilton, 2004) – constitutes the second domain in (student) teachers’ personal interpretative framework, complementing but also closely interwoven with their professional self-understanding. In line with the research on teacher thinking (see for example Craig et al., 2013), it can be argued that this

personal interpretative framework will act as a sense-making filter through which student teachers will ‘process’ their experiences in teacher education.

This processing is highly emotional, not only because their evolving self-understanding is involved, but also because of the particular nature of the subjective educational theory. As a personal system of both knowledge and beliefs, it also leaves the student teachers not emotionally indifferent and this is especially true in the less formalized, less explicit and even less conscious realm of the ‘beliefs’. Although beliefs remains a broad, messy concept, used from a variety of theoretical and methodological perspectives, the attempt by Pajares (1992) to define it, based on an extensive literature review, is still valuable: beliefs refer to, “an individual’s judgment of the truth or falsity of a proposition, a judgment that can only be inferred from a collective understanding of what human beings say, intend, and do” (Pajares, 1992, p. 316). As such beliefs are not neutral, but represent what one considers to be true and what as such engages the actor in particular ways in his or her practice. Beliefs, as a key component of the subjective educational theory, represent the outcome of the student teacher’s personal answer to the ‘how to?’- questions in teaching: how should I act to effectively deal with this situation and why do I think it would work?

This know how is a mixture of formal knowledge, acquired through study (primarily of the teacher education curriculum) – and beliefs, developed through personal reflections on personal actions, observations, experiences, bits of concrete advice (‘tips and tricks’) from relevant others (peers, teacher educators, mentors or collaborative teachers, etc.). It is important to stress that the value or truth of elements in the subjective educational theory is ultimately grounded in the judgment of the person involved: whatever the authority of the source, whether or not particular knowledge and beliefs are acknowledged or subscribed to –and as such made to work- depends on the person of the student teacher (Kelchtermans, 2009).

This process of constructing meaning, explanation and evidence for one’s personal system of knowledge and beliefs is strongly rooted in the person’s own experiences and their emotional load, not just during their teacher education but also in their former lives as pupils. For example, in their study on student teachers’ beliefs on motivation and motivating pupils, Mansfield and Volet (2010, p. 1413) argue for, “the critical role played by prior understandings and beliefs held on entering teacher training in influencing development of new understandings, or reinforcing existing beliefs” and conclude that, “The significance of emotional residues emerging from prior educational and personal experiences, especially when that experience was negative and left emotional scars, was highlighted.” Especially negative emotional experiences during practical training, confirming one’s own negative experiences as a pupil, have a very strong impact on student teachers’ beliefs (for example on classroom motivation).

The teaching goals student teachers set for themselves are, “complex and personal and (...) not all PTs are motivated by the same types of reasons, nor do they have the same beliefs about or levels of commitment to teaching” (Thomson & Palermo, 2014, p. 65). With their study the authors further subscribe to the claim by Timoštšuk and Ugaste (2010) that teacher education programmes should more

explicitly stimulate and apply student teachers' pedagogical reasoning in order for them to become aware of the beliefs that are actually underlying and affecting their practice (for example during internship) and eventually the emotional motivational impact of these experiences (Thomson & Palermo, 2014, p. 65).

Student teachers' beliefs represent their understanding of relevant issues in teaching in a way that impacts both their learning and their actions. This is why beliefs are emotionally relevant and emotions can affect beliefs (Sutton & Wheatley, 2003, p. 338). Wittman (2011), for example, showed how learning-related emotions in student teachers –echoing their former experiences as pupils– impacted their learning strategies during teacher education, but also their attitude and willingness to orient their teaching to more self-directed learning by the pupils. Elik and her colleagues (2010) demonstrated the mediating effect of student teachers' emotions towards pupils with learning and behavior difficulties (LBD) on their tendency to engage in punitive reactions to them. Negative emotions around LBD were found to impact beliefs, spontaneous reactions as well as planned reactions. The authors therefore argue for practicing and training regulation strategies on negative emotions in teacher education programmes. Yet, the latter remains a complex and difficult matter, as Klemola, Heikinaro-Johansson, and O'Sullivan (2013) found in their evaluation of training modules aimed at making student teachers in physical education implement socio-emotional strategies.

The personal and emotional character of the beliefs in student teachers' developing subjective educational theory (knowledge and beliefs) is both a strength and a possible pitfall. The sense of experience-based truth, effectiveness, solidity, clarity, certainty, etc. of one's know how provides self-confidence, positive self-esteem, motivation and satisfaction. It is the feeling of 'Yes, I can, because I understand and know how to and experience has proven me right'. The pitfall – or the other side of the coin – is that the emotional and experiential (biographical) nature of the 'know how' make it very hard to change (for example in the case particular deeply held beliefs are simply wrong, unjustified or ethically questionable) (see also Pajares, 1992).

As a consequence, problematizing, challenging and possibly changing student teachers' beliefs cannot but be an important goal for any teacher education programme. Research findings illuminate how emotions not only play a central role in the construction and development of the beliefs, but also in their potential change. Emotions may intensify the resistance to change, but at the same time constitute potential levers to modify or replace beliefs. Working with student teachers for primary school, Stavrou (2012), for example, reports on a collaborative creative music training project that was designed to understand and change student teachers' beliefs in relation to musical creativity. More in particular the project was motivated by the well-documented finding that generalist teachers tend to have little confidence in their own musical capabilities as well as in their ability to teach music to children (Stavrou, 2012, p. 48). Her study documents how student teachers' emotional experiences during the project impact the (lack of) change in their beliefs.

When teacher education programmes explicitly subscribe to a particular normative and political agenda (i.e., teaching for social justice; anti-racism) the issue of

how to change beliefs and the emotions involved becomes an even more prominent concern. Driven by an agenda of teaching for social justice, for example, Boylan (2009) used explicit discussions of emotionality in the preparation of mathematics teachers. Similarly, Smith (2014) describes on the use of particular documentary films as a pedagogical tool to change student teachers beliefs regarding educational equality. She concludes that,

certain documentaries have the pedagogic potential to transform student thinking via the evocation of particular emotions which act to disturb white hegemonic practices, attitudes and cognitions. However, given that emotion is understood as integral to the operationalization of whiteness, students' emotional responses are analysed from a critical whiteness perspective to reveal emotion as also potentially obstructive to student transformation. (Smith, 2014, p. 217)

Student teachers' beliefs about teaching and pedagogy, as well as about good teaching and their subject content, are emotionally not neutral. On the one hand the deeply held beliefs are emotionally valued and cherished –and therefore student teachers may show strong (emotional) resistance to changing them. Yet –and here we already move from a descriptive to a more prescriptive agenda- it is exactly because of their emotional load that explicitly addressing these emotions creates pedagogical opportunities to change and develop them.

Emotions and Subject Content

Although often primarily looked at as a technical pedagogical issue, the curriculum content (student) teachers have to teach doesn't leave them emotionally indifferent. Or more in particular, several studies demonstrated that the way student teachers relate to particular subject content in the curriculum is also highly loaded with emotions. A series of recent questionnaire studies in Spain focused on the way future primary (Brigido, Bermejo, Conde, & Mellado, 2010, 2013; Brígido, Borrachero, Bermejo, & Mellado, 2013) and secondary teachers (Borrachero, Brigido, Costillo, Bermejo & Melado, 2013; Borrachero, Brígido, Mellado, Costillo & Mellado, 2014) felt about particular subjects in science education. They found striking differences between physics and chemistry on the one hand and nature sciences (biology, geology) on the other. The 'hard sciences' (physics and chemistry) triggered more negative emotions, while the nature sciences were looked at with predominantly positive emotions. The studies found high correlations with the remembered emotions felt when the student teachers were pupils themselves as well as with the fear to experience difficulties when teaching the subjects in the future. These studies clearly show that even within one curriculum domain –science education- the emotional associations can vary widely. As already argued earlier in the chapter, the emotional responses were found to be strongly influenced by biography, but in turn also themselves impacted anticipated emotions when having to teach them in the

future. Interestingly self-efficacy was found to be positively correlated with positive emotions and negatively with negative emotions, as such strengthening the idea that creating positive emotional experiences with sciences (especially the 'hard' ones) for pupils in schools as well as for student teachers may make an important contribution to strengthening their self-confidence in relation to the subject as well as their emotional experiences when entering the profession and starting to teach.

These findings are in many respects parallel to the ones from research on student teachers' emotions towards mathematics and in particular those on mathematics anxiety. The latter is also often rooted in former school experiences of student teachers and strongly impacts their learning during teacher education. Rule and Harrell (2006) built on Jungian analytic psychology to develop a method using symbolic drawings to elicit student teachers' emotions regarding mathematics before and after a course on maths teaching. Findings showed that the predominantly negative emotions changed for the positive, that anxiety decreased and that motivation shifted from extrinsic to intrinsic. The same research technique was applied in a later study by Burton (2012), who focused more on student teachers' images about mathematics in general. Her findings were in line with those of Rule and Harrell, but interestingly demonstrated how the negative emotions toward maths primarily were connected to 'maths in school', while student teachers who connected them to the real world felt much more positively. This implies that building student teachers' confidence through positive experiences in (practical) teaching is more effective if the particular subject content can be linked to the real world outside classroom and school. And there is little reason to assume why this would not also apply to other 'scary' subject areas like the 'hard sciences' (see above).

Gatt and Karppinen (2014) provide evidence that the same line of argument holds true for the subject art and craft in the education of teachers for primary and early years education. Questionnaire data collected from both Finnish and Maltese student teachers showed that,

prior emotional experiences, particularly negative ones in arts and crafts in primary and secondary school affect students' attitudes, beliefs and emotions toward arts and crafts courses in teacher education ... positive effects on attitudes and confidence when teacher training provides authentic artistic processes and positive experiences to help overcome their fears of these subjects in order to become active and enthusiastic arts and crafts teachers in the primary school. (Gatt & Karppinen, 2014, p. 85)

And finally, Kay (2007) provides evidence that similar conclusions apply with regard to ICT. She studied the impact of student teachers' emotions to computer use, both in course work and in teaching practice and found positive effects of an integrated laptop programme in enhancing the positive and reducing the negative feelings.

These findings on emotions and the related beliefs towards components of the school curriculum are important and relevant because of their impact on student teachers' actual learning during teacher education. Furthermore this literature demonstrates that it is possible and worthwhile to design curriculum experiences for student teachers that help them become aware of their emotions (and how they are possibly rooted in former biographical experiences), expose them to positive experi-

ences, thus boosting their self-esteem, motivation and self-confidence in relation to teaching the subject. Put negatively, not acknowledging the role of emotions towards subject content and their teaching constitutes a heavy threat to achieving the desirable outcomes of teacher education, in competencies (knowledge, skills and attitudes) as well as in self-esteem, efficacy and motivation.

Emotions and Practical Teaching Experiences

The relevance and complexity of emotions in learning to teach are probably never as high as in those parts of the pre-service curriculum where student teachers actually have to enact their professional role and skills in practice (see Montgomery, 2005; Nguyen, 2014; Raffo & Hall, 2006). Internships, placements, or other forms of practical training in schools are often experienced by the student teachers as the ‘real thing’ or the ‘moments of truth’, which will reveal whether they can be teachers at all or how good they may be at it. All of which make those experiences in teaching practice highly emotional. Being exposed to and having to work with ‘real’ pupils triggers intense feelings, concerns, but also reflections on the emotional dimension of teaching, as for example Poulou (2007) documents in her analysis of the reflective journals of Greek student teachers.

In Portugal Caires and her colleagues have developed a questionnaire instrument aimed at capturing in a holistic way student teachers’ experiences in practicum: the Inventory of Experiences and Perceptions of Teaching the Practice (IEPTP). The instrument measures student teachers’ general perceptions of their learning and experienced supervision, their professional and institutional socialization; career aspects as well as the emotional and physical impact of the practicum (for example on their perceived stress level, sleeping pattern, etc.). In a first study they collected data from 224 Portuguese student teachers at the beginning and the end of their practice year. The findings show,

growing levels of adaptation and satisfaction, and the influence of gender, graduate course background, 4th-year grade, and school setting on their experiences. School resources and acceptance, supervisor’s guidance and support, and the feeling of vocational fulfillment were identified as determinant factors of students’ socioemotional adjustment. (Caires, Almeida & Martins, 2009, p. 17)

In a later study and based on data from 295 student teachers in both arts and sciences programmes, they conclude that –in line with former research:

teaching practice is perceived as a particularly stressful and demanding period, which involves considerable amounts of distress, changes in psycho-physiological patterns and an increasing sense of weariness and ‘vulnerability’ ... Despite these difficulties, data also reveal student teachers’ positive perceptions regarding their growing knowledge and skillfulness, their increasing sense of efficacy, flexibility and spontaneity in their performance and interactions, as well as the awareness of having achieved reasonable levels of acceptance and recognition amongst the school community. (Caires, Almeida & Vieira, 2012, p. 172)

Their findings further show the importance of the ‘ethos’ of the placement school and that,

the warmth, acceptance and satisfactory conditions offered to these newcomers may determine not only their growing sense of ‘belonging’ but also (partially) their self-fulfillment regarding the teaching profession or the reasonable sense of professional identity acknowledged by these student teachers. (Caires et al., 2012, p. 172)

Kaldi reported similar findings on the emotional impact of the practicum (2009) in a questionnaire study with 170 Greek student teachers: positive experiences during practicum strengthened student teachers’ self-competence, and reduced their levels of stress. Student teachers’ emotional condition contributed to the quality of their learning and development during the teacher education programme. Yet, an older, qualitative study by Hayes (2003) in England, analyzing the retrospective, reflective accounts of student teachers at the end of their final placement, provides a more nuanced and complex picture of the impact emotions have on student teachers’ well-being and motivation. Hayes identified a typology of four emotional conditions (anticipatory, anxious, fatalistic and affirming emotions) that can be found among student teachers and argued that their emotional condition strongly impacts the extent to which student teachers can efficiently operate and learn during their teacher education, especially in times of rapid changes and increasing demands.

Also Vanderclayen, Boudreau, Carlier and Delens (2014) looked at the emotional meaning of placement experiences and how they affected student teachers’ coping and learning. They found that experiencing unanticipated situations during practical training lessons triggered negative emotions in student teachers and were experienced either as a threat or a challenge. As a consequence their actual choice of the coping strategies depended on an interplay of contextual and personal factors (among which perceived self-efficacy in relation to classroom management).

The studies discussed in this section – even more than others – demonstrate the need to understand emotions in learning to teach as a relational, situated and contextualized phenomenon. Even research that tries to develop a typology of student teachers in terms of their psychological individual characteristics, demonstrates the central role of relations and interactions with others. Thomson and her colleagues (Thomson & McIntyre, 2013; Thomson, Turner & Nietfeld, 2012) have studied the development and content of the teaching goals student teachers set themselves. They developed a “teaching goals model” and show how these goals are resulting from the interplay of motivating factors, beliefs and student teachers’ models of teaching, based among others on emotions. In a recent study they show how student teachers’ teaching goals – reflecting the motivations and commitments to the job – were strongly influenced by experiences in teaching during their internships, but also by the emotional state they noticed in the collaborating teachers (mentors) which they considered as role models for their professional lives. Although reflecting a very different profile in terms of their motivation and job commitment, all three presented cases in the study showed that these student teachers saw, “teaching as a desirable career if they saw themselves as having the knowledge and skills to teach, and if they could associate positive emotions with teaching” (Thomson & Palermo, 2014, p. 64). They further also found clear evidence that student teachers’

biography and schooling history influenced the emotions they experienced during practical training. They suggest that,

Some relationships, particularly with past teachers or children, seemed to allow participants to deal with emotional vulnerability or helped them develop feelings of confidence. All PTs made their initial decision to become teachers because they felt they would enjoy the human interaction or because they had pleasant memories from their own relationships as students with their teachers. (Ibidem, p. 65)

These studies demonstrate how the intense and pervasive emotional experiences result from the complex interactions and dynamic sense-making between the student teachers and the social (e.g., other people in schools), structural (institutional characteristics of teacher education, curriculum, organizational arrangements, etc.) and cultural (for example normative ideas on good education and teaching as part of the school culture) conditions they find themselves in during practical teacher education. However, it is important to stress that the emotions are not just the outcomes of these interactions, but also constitute or condition them and their meaning. Explicitly addressing the emotions (for example in the experiences during practical teaching) may create powerful pedagogical opportunities. In the next section we'll elaborate on this pedagogical potential.

Emotions and the Pedagogy of Teacher Education

Since emotions are intrinsic, even constitutive for the development of student teachers' self-understanding and professional expertise, one cannot but ask what are the consequences for designing and facilitating learning opportunities for student teachers. Although we already touched upon it a couple of times in the former paragraphs, we now explicitly move our attention towards the *prescriptive meaning* of our interest in emotions and student teachers: how can and/or should teacher educators acknowledge and deal with the inevitable emotions in student teachers' learning? Or even more, how can they create opportunities for student teachers to become aware of the emotional dimension in teaching and to develop appropriate ways to deal with it?

Based on our analysis of the research literature we have identified a number of conditions and more general pedagogical issues related to the exploration and management of emotions in teacher education. Next we discuss research on specific pedagogical methods and strategies addressing the emotional dimension of becoming a teacher.

Exploring the Emotional Dimension in Becoming a Teacher: Pedagogical Issues and Conditions

In order to create powerful educational opportunities in teacher education to explore the emotional dimension in teaching, a number of conditions and issues need to be taken into account. A first – and maybe most important – condition concerns the quality of the *relationship between the student teachers and their teacher educators* (both the teachers of the programme at the teacher education institute and the mentors or collaborating teachers during the internships of their practical teaching). In other words, even from a purely instrumental pedagogical interest relational quality matters. Overall the *emotional support* student teachers experience *from their teacher educators* is an important determinant of the emotions student teachers experience. This was documented and demonstrated for example in a large scale survey study by Sakiz (2012) in the teacher training department of a major university in Turkey. She found a clear relationship between perceived instructor affective support, emotions (i.e. academic enjoyment and academic hopelessness) and the motivational variable of help seeking behavior. In an older study Hayes (2001) had 43 primary student teachers write accounts of the experiences that had most impacted their professional growth during practice placement. His findings confirm that the attitude and skills of the teacher educators and mentors had been decisive in the strengthening of student teachers' self-confidence and self-esteem. Especially the degree to which student teachers felt included in a 'community of practice' and the quality of the feedback they received were identified as most contributing to their professional development. It follows that not only in K-12 classrooms emotional support is important for students' learning, but also in college classrooms during teacher education. Caires and Almeida (2007) came to similar conclusions after analyzing the evaluative reflections of 224 student teachers on their relation with the cooperating teacher in practicum and the university supervisor. Their analysis,

emphasizes the determinant role of the supervisory relationships in the personal and professional development of the prospective teachers. Besides representing a privileged setting for the monitoring of the student teacher's development, for the reflection on his/her practices and growth, or the devise of a more consolidated and integrated knowledge of the how's and why's of the teaching profession, the supervision relationship emerges as an important source of personal and emotional support. (Caires & Almeida, 2007, p. 525)

Apart from the emotional support they provide, *teacher educators' role modeling in the management of their emotions* constitutes a second relevant condition. In a study on appropriate and inappropriate emotional display, Hagenauer and Volet (2014) interviewed teacher educators who were teaching first year student teachers. Their respondents on the hand considered expressing positive emotions as an important and integral part of their teaching. Yet on the other hand they argued that for negative emotions it was critical to control and often even completely hide them. As such, one could label this as 'emotional work for educational and pedagogical purposes'. Hochschild (1983) coined the term emotional work, referring to the need for

employees to manage their emotions (displaying, hiding, ignoring) as an essential competence in order to obtain their goals and interests. Since these teacher educators believed that appropriate emotion management was an important element in student teachers' becoming competent teachers, they engaged in those more conscious forms of public modelling of their emotions. This modelling of emotional management therefore is at the same time a relevant condition for emotional learning in teacher education as well as a technique to develop student teachers' professionalism. The issue further exemplifies an ongoing debate – recently mentioned by Frenzel – on, “whether emotional labor is a blessing or a curse for teachers” (Frenzel, 2014, p. 512).

In line with what we discussed before on student teachers' emotions in relation to particular subject content, the pedagogy used in teacher education for particular subjects constitutes a third condition for exploring the emotional dimension in teacher education. It is very important for student teachers to have positive emotional experiences with (teaching) particular curriculum contents. In other words, it matters how *student teaches 'feel' about having to teach particular subject contents*. In a number of recent studies, researchers tried to conceptualize and study “emotional climate” in science education, both in primary (Olitsky, 2013) and secondary (Bellochi et al., 2014) schools in the US and Australia. Taking a more explicit sociological perspective, Bellochi et al. define emotional climate as being,

produced during social encounters from which participants develop solidarity, or group belongingness, through rhythmic coordination of gesture and speech, mutual focus of attention, production of collective effervescence through group laughter and emotional attunement, and emotional energy. As a ritual outcome, collective effervescence is a state of heightened group experience whereby the group shares the same emotions (e.g., joy) and ideas. Through this process, shared ideas become symbols representing the group's interactions. The heightened emotional state experienced in forming these shared ideas flows on to the emotional energy experienced by individuals. (Bellochi et al., 2014, p. 1304)

Using for example detailed analysis of videotaped lessons, these studies explore the relationship between particular pedagogical strategies (role play, demonstration) in science teacher education on student teachers' learning, their individual emotions as well as the emotional climate.

A fourth condition is closely linked to the fact that teacher education –as any formal education- inevitable includes processes and procedures of *assessment and feedback*. At the end of the programme the teaching staff needs to evaluate whether the student teachers have successfully met the goals and can be qualified for the job. Apart from this eventual sanctioning – which self-evidently plays in the background of any action or content of the teacher education programme – assessment and feedback are also constitutive parts of the programme as such. Their relevance for the discussion of emotions in teacher education lies in the inevitable emotional arousal they provoke, as well as in the fact that the way they are emotionally experienced will affect their impact on student teachers' learning. The set-up of assessment and feedback in teacher education programmes as such constitutes a structural source of emotions for the students going through the programme. Furthermore, assessment and the envisaged learning are supposed to be in line with each other. For that rea-

son Turner and her colleagues (2013) in the UK had student teachers present the results of a school based project assignment during an oral examination (as summative assessment of the course) instead of the traditional written account. Especially the qualitative part of their mixed-method data set revealed a nuanced and complex picture of the student teachers' emotions involved and how they affected their learning. Emotions of tension and anxiety were present, but overall the student teachers appreciated the alignment between purpose and assessment format and valued the opportunity for structured sharing with others. This study further demonstrates that positive and negative emotions can be present in learning experiences at the same time and that negative emotions not necessarily lead to negative outcomes.

Contrary to the sanctioning impact of summative assessment, the effect of feedback on their work for student teachers might be a less 'high stakes issue'. Yet, as Dowden, Pittaway, Yost, and McCarthy (2013) rightly point out, the way feedback procedures are set up and unfold is a highly relevant condition, but little studied in its emotional meaning. Carless (2006) used data from a large-scale multi-method study in Hong Kong to argue that feedback always involves a particular discourse (that can be more or less unequivocal in its meaning for the recipient), a clear power relationship (the feedback provider is the one who 'knows' and 'judges', positioning the recipient as weaker and dependent), and is highly emotionally relevant. Feedback on assignments does not leave the recipient emotionally indifferent and the emotion impacts the learning from the feedback. This point is explicitly taken on by Dowden et al., reminding us that,

while it is generally accepted that emotion plays some kind of role in relation to students' perceptions of written feedback; it has not been widely understood that emotion is intertwined with cognition and, therefore that students' emotions actually mediate their perceptions of written feedback. (p. 352)

Questionnaire data from student teachers confirmed the relationship between emotions and the cognitive benefits they got from feedback. Furthermore, the data demonstrated that the presence of an overall warm and supporting teaching and learning context strengthened the positive contribution of feedback to student teachers' learning. In line with Carless (2006), Dowden et al. (2013) also conclude that dialogical or "two-way" feedback formats may entail a set-up that diminishes the negative and unintended side-effects of feedback interfering with and possibly jeopardizing its potential effect on student teachers' learning.

From the more general conditions determining the pedagogical exploration of the emotional dimension in becoming a teacher, we now zoom in on a number of specific pedagogical strategies and methods.

Pedagogical Strategies and Methods to Explore the Emotional in Teaching

Both at a practical and conceptual level it becomes an important challenge for the pedagogy of teacher education to create opportunities for student teachers to explore the emotional dimension in teaching and being a teacher, as well as learning to properly deal with it. This dealing not only demands cognitive understanding and acknowledgement or the mastery of particular effective management skills. Engaging with the emotional dimension in teaching will in itself often be an emotionally meaningful experience.

Different pedagogical strategies to have student teachers ‘work’ on the emotional dimension have been reported in the research literature, most often linked to a form of reflective practice. Minott (2011), for example, presents the findings of an action research on the effect of a reflective teaching course. Student teachers not only developed a reflective attitude, but engaging in reflection also made them more aware of the emotional aspects of the teaching job and –as a consequence– about the need to consciously address them and deal with them as teachers.

The research literature reports on several *forms of reflective assignments*, in which student teachers are invited, stimulated and supported to actively think back and thoughtfully explore their practical teaching experiences and in particular their emotional aspects (for example Hayes, 2001). However, quite often the assignments start from reflections on problematic situations or negative experiences. Drawing on insights from positive psychology and solution-based therapy, Janssen, De Hullu, and Tigelaar (2008) took a different approach. In their study of biology student teachers, they asked the participants to reflect not only on problematic, but also on positive experiences during their teaching practice. They found that students reflectively analyzing positive experiences were more innovative in their conclusions, more motivated to act in accordance with their reflective conclusions and felt emotionally more positive during the reflection than when reflecting on negative experiences.

Studies on the emotions in reflective assignments often also draw on *narrative and/or biographical approaches* (see also Kelchtermans, 2014). LaBoskey and Cline (2000) illustrate how inquiry-based storying can be used in teacher education to, “reveal to both the story-tellers and their instructors the beliefs, values, feelings, and attitudes that guide practice” (p. 360). However, the authors rightly stress the need for instructors to actively support and challenge this process if one wants to avoid the exercise to become self-congratulating or only confirming student teachers’ beliefs and implicit theories. Thoughtfully designing the assignment, monitoring and engaging in critical feedback are essential conditions to trigger critical deliberation and reflective inquiry. An example of the biographical approach is found in the work of Deegan (2008). Building on autobiographical understanding and narrative inquiry, (2006), he analyzed the memoirs of 99 Irish primary student teachers’ experiences with “writing emotionally”, defined as,

as a way of coming to know, understand and act on the emotions through writing, including sympathy, imagination, intentions, feelings, and thoughts of self and others. Writing emotionally is a process of cutting the emotional vein and setting free feelings and ideas that have been silenced in everyday discourse. (Deegan, 2008, p. 186)

His analysis of the memoirs demonstrates how the student teachers' professional identities (or self-understanding) emerged out of the constructive negotiation processes between freedom and conformity to predefined norms and expectations. Hence, the study stresses the educational potential of the memoirs to surface the often hidden or neglected emotional, moral and political issues in the development of one's self as a (becoming) teacher: "how, and in what ways, student teachers bridged memories of their own childhood experiences through the prism of teacher-writer memoirs with scenes they are currently experiencing as student teachers in a primary teacher education programme" (Deegan, 2008, p. 186).

From a similar interest in student teachers' developing identity, Schonmann and Kempe (2010) used *reflective monologues* with drama student teachers to reflect on and become aware of their needs, concerns and expectations at the start of the teacher education programme. The monologues were first written (focused expression of student teachers' thoughts and feelings) and afterwards presented as theatre monologues to their peers (thus creating a supportive environment with an attentively listening audience).

Other pedagogical strategies combine forms of reflection with non-linguistic actions. Oral or written language are being left out or at least postponed in the process for some time hoping this way to intensify the experience, without it being distorted or reconstructed through language. This way the student teachers have to endure the discomfort of the intensified emotions before reflectively working them through in dialogue with others (peers). We already mentioned Burton's study (2012) on working with drawings. A different example can be found in the work by Forgasz (2014). She uses Boal's (1995) methodology of the "Rainbow of Desire" to have her drama student teachers reflectively explore their emotions in practice teaching through different *theatrical techniques* in which the use of language is postponed.

Finally, we also want to mention a number of recent studies on whether and under what conditions the so-called *new social media* may be used to support emotional learning. The advantage of those media, like weblogs, Facebook, Twitter, is that they can be used asynchronously and from a distance in the learning process, which in principle holds promising possibilities for teacher educators to support student teachers' (emotional) learning during internships. These media allow for the fast documenting and sharing of experiences and reflections and as such can be used to help student teachers become aware about and properly deal with the emotional dimension of teaching. Informally reading, writing, sharing, one's emotions through these tools may help student teachers to come to understand them as normal and as part of the job as well as of their own professional learning. Yet when the informal that characterizes these media becomes formalized in the practice of a training's curriculum, under the gaze of the teacher educator, it might become a form of bias.

Reupert and Dalgarno (2011) studied compulsory weblogs as a medium for student teachers to share experiences on classroom management with their peers. The researchers had hoped that the reflections would pay more attention to the role of the particularities in that internship, rather than merely looking for 'tips and tricks'. However, student teachers evaluated them very differently. To some the blogs were a good way to ventilate their emotions and receive support and tips from peers, while others questioned the value of peer advice and evaluated the blogs as too time-consuming. Reflecting 'in public', on a 'forum' felt uncomfortable for many students and the blogs ended up being mostly used to share tricks instead of deepening reflection (Reupert & Dalgarno, 2011). Also Shoffner (2009) compared different electronic environments (i.e. online discussion forum versus individual weblogs) for their pedagogical merits in developing student teachers' awareness of and coping with emotions in teaching. She pointed out that the differences in formal language requirements, level of public access, and other technical aspects can and will influence their actual use by student teachers and hence their pedagogical value (see also Gleaves & Walker, 2010). As the actual electronic communication technology most likely will continue to develop into different applications and formats in the future, it is important to remember that the technical possibilities not always straightforwardly or self-evidently contribute to educational goals. In other words, it is not because it is technically possible, that particular tools will also operate pedagogically in the way that was intended or planned.

It goes without saying that a de-contextualized listing of different pedagogical methods and strategies for exploring and dealing with the emotional in teacher education doesn't make much sense. Pedagogical tools, techniques, procedures and arrangements can only be properly understood and valued by looking at the concrete pedagogical practices in which they are implemented. And these practices involve the teacher educators, cooperating teachers and/or peers (student teachers) in a particular context as well as their mutual relations. So ultimately the possible effect of the pedagogical interventions will per definition depend on the way teacher educators or cooperating teachers actually engage with the student teachers. This point was already argued by Hawkey (2006): emotions are of central importance in the mentoring relationship between teacher educators and their students (see also Tanaka et al., 2014). Supervisors' capability to properly manage student teachers' emotional experiences was found by Harrison and Lee (2010) to be crucial for the development of critical reflective practice skills in student teachers. Higgins, Heinz, McCauley, and Fleming (2013) further demonstrated the crucial importance in this of the emotional quality of the relationship between the teacher educators and the cooperating teachers, or between the teacher education institute and the practicum schools.

In summary, for the further development and improvement of a pedagogy of teacher education in relation to the emotional dimension of teaching and becoming a teacher it is essential to take a contextualized approach that acknowledges and includes the relational and organisational conditions in which the pedagogies are enacted. Whether and in what way particular interventions or tools successfully contribute to student teachers' understanding of and capacity to deal with the emo-

tional dimension of their job, will depend on their actual implementation as well as the way the people involved make sense of them.

Conclusions and Perspectives

Our exploration of the research literature on the emotional dimension of becoming a teacher has exemplified and illustrated in more detail the general claim at the start of our chapter that emotions constitute the heart of teaching and also of learning to become a teacher. By way of conclusion we elaborate further on the meaning of this claim. We end the chapter with some perspectives for future research.

Firstly, the emotional is linked to the fundamental relational nature of teaching and therefore of learning to teach. The relations first of all concern others, the social aspects of becoming a teacher: the relationships with teacher educators, with peers, and –during practical training- with cooperating teachers and of course with pupils. The quality of these social relationships in their different pedagogical arrangements is highly emotional. The relational, however, also includes non-social realities, like for example student teachers' perception and emotional appreciation of the subject matter they (will) have to teach or institutional structures and procedures as well as educational policies. There is a vast literature, for example, criticizing the managerialism and performativity, including high stakes testing and evaluation procedures that have characterized international educational policies over the past two decades, and having –among many other (cognitive, relational, motivational)- also pervasive emotional effects. Or, in a very illustrative quote from Bullough (2009):

Teaching has always been intensely emotional work, but the nature of that work is changing in the face of a new managerialism that relies upon fear, embarrassment and teacher guilt to gain improved student performance (as demonstrated by rising standardized student test scores). (p. 33)

Secondly, and more fundamentally, however, the analysis of the research literature has made clear that the emotional dimension of becoming a teacher is deeply entwined with the moral, the political as well as the technical (or instrumental) dimensions that characterize teaching and schooling (see also Hargreaves, 1995). From a pedagogical interest in student teachers' emotional experiences, these different dimensions always need to be understood in relation to the moral and ethical aspects of educational responsibility and the choices they inevitably imply (Kelchtermans, 2011). The need to make value laden choices and to commit oneself in responsible actions pervades all aspects of teaching and therefore of learning to become a teacher.

This claim needs to be understood in relation to what we have argued elsewhere about vulnerability as a structural characteristic of teaching: teachers cannot but make decisions, based on their moral judgments on the particularities of a situation and how to act in order to do justice to the educational needs of their pupils or students. However, these decisions are inevitably value-laden and therefore always

remain open to contestation (Kelchtermans, 2009; Kelchtermans & Hamilton, 2004). Teaching, furthermore, always happens in institutional and organisational contexts (schools, teacher training institutes) in which particular normative discourses, procedures and practices dominate and to which the student teacher inevitably must learn to relate and position him/herself. Becoming a teacher therefore also demands positioning oneself to the actual processes of power and influence in the organization, through negotiation, decision making and even explicit micro-political strategies (Ball, 1994).

In the pedagogy and curriculum of teacher education quite often the emphasis still remains on the technical or instrumental ‘how to?’ – questions of content knowledge and pedagogical content knowledge, classroom management techniques and other aspects of the life in classrooms. Although the engagement with pupils in the classroom doesn’t leave student teachers emotionally indifferent, it is important to acknowledge that the moral and political dimensions require that the teacher education curriculum explicitly pays attention to the organizational and institutional levels beyond the classroom. Emotional experiences can be a powerful starting point for reflection and unraveling the way the school as an organization as well as the policy context impact teaching practice and the definition of being/becoming a teacher. These insights are crucial for future teachers to feel prepared, positively motivated and resilient to deal with negative emotional experiences. Understanding that one’s emotions are related to elements and processes in the context and as such are not just a personal matter or individual characteristic and responsibility is a liberating condition for student teachers to develop the necessary stamina, job motivation and satisfaction that are needed to teach and to develop professionally during the years in the job.

Thirdly, the emotional dimension in becoming a teacher is closely related to the fact that this learning process also involves one’s self-understanding (sense of ‘self’ or ‘identity’). Becoming a teacher demands developing a professional self-understanding as a (future) teacher. This is not only a technical issue of developing relevant instrumental knowledge, skill, attitude, competencies or dispositions, but touches on the personal: who one is, matters in teaching and therefore in becoming a teacher (Nias, 1989). It is obvious that precisely this connection and intertwining of the personal and the technical-instrumental in becoming a teacher are emotionally highly relevant.

At the outset of the chapter, we made clear that we had to set boundaries to our exploration of the literature by strictly limiting ourselves to research relating to student teachers and their emotional experiences. As a consequence we did not go into the important question of the emotions experienced by the teacher educators and/or cooperating teachers, when engaged in their work with student teachers. Several studies indicate that the emotions of the teacher educators are just as relevant as those of the student teachers. Golombek and Doran (2014), for example, report how teacher educators found themselves challenged by the massive emotionality that was present in their student teachers’ reflective diaries. Also other authors have documented and looked into the pedagogical relevance of the teacher educators’ emotions in their work (see for example Dowling, 2008; Hastings, 2008, 2010; McDonough

& Brandenburg, 2012). Hastings (2004) further also explored the often intense emotions of cooperating teachers in their supervision role with student teachers.

In line with the fundamental relational nature of teacher education and in particular the intense emotional load of practical training, it would be highly relevant to study the emotions of all parties involved in the practicum, both in themselves and in their mutual relatedness. Furthermore also follow-up studies, unraveling how the emotional dynamics evolve over time, are a necessary and logical next step.

Finally, it was surprising to find almost no research in which the embodied dimension of emotions in teaching and learning to teach was acknowledged and included. Although research on embodiment in teaching in general remains relatively scarce (Estola & Elbaz-Luwisch, 2003), little or no attention is paid to the obvious fact that emotions are ‘felt’ in the body. Emotional experiences imply the interaction between affect and cognition, between feeling and sense-making and the body is the self-evident space where this happens. Further research on the embodied nature of teaching and learning to teach is not only important because of its theoretical relevance, but also pedagogically it holds important and fascinating promises (see for example Jordi, 2011; Forgasz, 2014).

The research on emotions in teacher education would not only contribute to further theory development, but also to the practical agenda of designing and implementing powerful learning opportunities for student teachers (as well as teacher educators or cooperating teachers). This may be linked to the call for a ‘pedagogy of discomfort’ by authors like Boler (1999) and Loughran (2006) among others. Purposefully bringing student teachers in situations that put them out of their comfort zone will intensify their emotional experiences and as a consequence may contribute to deepened reflections and learning. The pedagogical potential of explicitly addressing the emotional dimension in teacher education is only starting to be explored and promises to provide rich sources for practice as well as theory.

Acknowledgement The authors gratefully acknowledge the contribution of Anouck Gierts to the identification and selection of the relevant literature.

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Chapter 28

Social Justice and Teacher Education: Context, Theory, and Practice

Sharon M. Chubbuck and Michalinos Zembylas

Teacher education focused on social justice does not exist in a vacuum. Its theory and practice reside in a global context that can exert considerable influence on its formulation and expression, even as those very contexts also can be influenced by theory and practice as those develop over time. Examining the contextualization of teacher education for social justice with a delineation of its theory and practice is important to advance the field. With that goal in mind, this chapter examines relatively recent scholarship—theoretical and empirical—on the context, theory, and practice of teacher education informed by goals of social justice.

The timeliness of this review is clear. According to many educational theorists and researchers, primarily from 2008 to 2011 when publications peaked, the term ‘social justice’ is used generously throughout teacher education programmes, at least in the United States, with ill-defined meaning, often functioning more as emotionally evocative slogan than substantive guide (Carlisle, Jackson, & George, 2006; Chubbuck & Zembylas, 2008; Cochran-Smith, 2010; Dover, 2009; Grant & Agosto, 2008; McDonald & Zeichner, 2009; North, 2006, 2008; Reynolds & Brown, 2010; Zeichner, 2009a). The practices of teacher education with a social justice orientation and its study both have been accused of insufficient theoretical grounding and a lack of coherence (Grant & Agosto, 2008; McDonald & Zeichner, 2009). Much of the research is methodologically limited, focusing on single courses—methods or multi-cultural education—often as small-scale self-studies by course instructors, with little research on programmes with social justice embedded throughout. More focused, synthesized attention to the topic clearly is needed. This chapter offers that attention.

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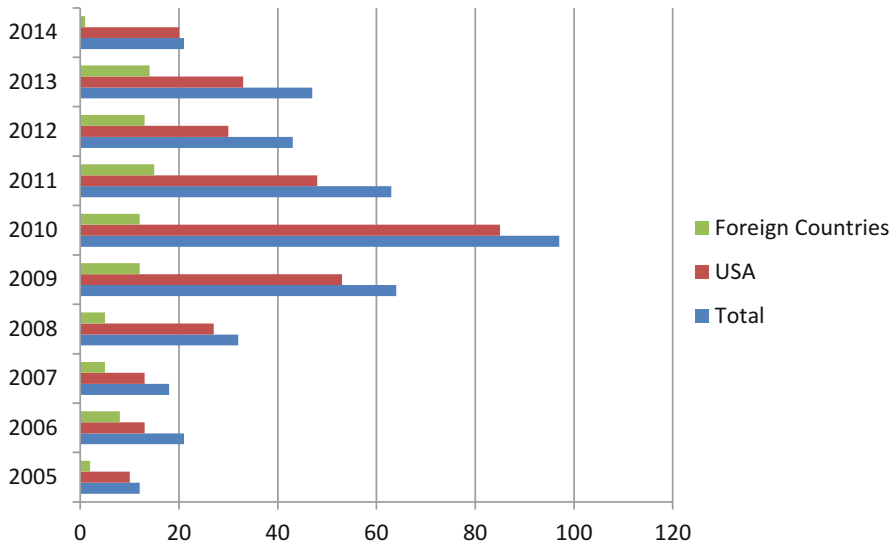


Fig. 28.1 Rate of 'social justice' 'teacher education' publication per year

We do not, however, provide an exhaustive review of all relevant literature. The topic is enormous. For example, an ERIC search of peer reviewed scholarly articles, dated 2000–2014, with 'teacher education' and 'social justice' as subject descriptors, produced approximately 700 articles with approximately 25 % including the descriptor 'foreign country', implying that 75 % originated in the United States (See Fig. 28.1).

Narrowing the search to 2010–2014 produced over 250 articles over half of which were theoretical/descriptive, a cursory examination of which confirmed the above methodological concerns. Based on this initial search, we selected work of theorists and researchers from multiple international contexts (though significantly skewed towards American authors), with three areas of focus. First, we selected reviews of literature related to social justice in teacher education, most occurring between 2000 and 2009. Second, we examined work, regardless of publication date, done by scholars, whose names occurred repeatedly, suggesting widespread recognition. And finally, we included selected individual research articles from 2010 to 2014 representing multiple international perspectives.

This chapter, then, provides a cartography of the landscape of socially just teacher education. We first contextualize the topic in current global trends, as described by educational scholars, using broader summaries from various sources. This is followed by a presentation of possible theoretical foundations. We then focus on the practices of socially just teacher education with more detailed descriptions of selected studies to illustrate our points, including definitions of socially just teaching; research on the development of elements of socially just teaching; the role of field placements; outcomes in graduates in the field; and programmes with holis-

tic embedding of social justice. We end the chapter with a summary/synthesis of our recommendations, with the hope that this overview of teacher education informed by social justice—contextually, theoretically, and practically—will move us forward productively.

Context of Socially Just Teacher Education

Education, and by extension, teacher education are contextualized in an increasingly globalized world with both economic and cultural effects. This context produces consequences in education that proceed in a domino effect.

Economic Effects

Increased globalization has forced nations to become more economically competitive (Tatto, 2006)—framed as benefitting economic opportunity through increased trade across national borders with less restriction, but often producing more inequities than benefits (Apple, 2010). The result, known as ‘neoliberalism,’ is characterized by free markets, privatization, and increased national and individual competition—a social Darwinist, individualistic rather than collective approach (Apple, 2010; Bates, 2006, 2010; Dahlstrom, 2007; Kumashiro, 2010; Schafer & Wilmot, 2012; Sleeter, 2008, 2009; Smyth, 2006, 2013; Tatto, 2006; Zeichner, 2009a). This movement, prevalent in ‘Western’ countries since the 1980s—Australia, New Zealand, South Africa, the United Kingdom, and the United States (Apple, 2010)—is being imported into ‘third world’ and rising nations such as Ethiopia and Brazil, with destructive effects (Dahlstrom, 2007; Hypolito, 2004). The movement is reaching a level of unquestioned ‘common sense,’ where policies and practices driven by the demands of money and markets seem “natural” (Kumashiro, 2010).

In this free market, economically competitive context, schools often are expected to provide students with the necessary skills to further their country’s economic competitive edge (Schafer & Wilmot, 2012; Tatto, 2006). Indeed, when economic stability is shaken, accompanied by a perceived threat to national security, as occurred during the economic upheaval in the 1980s, schools, teachers, and teacher educators are often seen as both the *cause* of economic diminishment and the potential *solution* (Klein & Rice, 2012; Ravitch, 2010; Sarason, 1990). For, example, the 1983 government document ‘A Nation at Risk’ (1983) claimed that a ‘rising tide of mediocrity’ in US schools threatened national security, with then President Reagan positing that the Civil Rights Movement’s push for greater educational equity had been too challenging, thus compromising the supposed historic quality of US schools. Similarly, following the 2008 international recession, Klein and Rice (2012) reported an ‘increasing’ failure in the American public educational system,

citing these weaknesses as threats to the country's national security and economic growth and competitiveness.

Though 'golden age' of quality American education never existed, with education doled out differentially based on students' race, class, and gender (Kantor & Lowe, 2004), some believe such fearmongering reports prompt current reforms marked by neo-liberal free market ideology (Ravitch, 2010). Free market competition has produced stringent, punitive accountability in public systems, evidenced in public posting of failing schools under the US No Child Left Behind law and school rankings in international league tables (Smyth, 2006). Additionally, rising competition has increased choice, seen in growing numbers of charter and voucher funded private schools in the US and the 'assisted places scheme' in the UK, with public funding funneled to private schools and/or schools with considerably less government regulation (George & Clay, 2008; Ravitch, 2010). Some fear this focus on competition and choice may open the door to privatization and education for profit (Ravitch, 2010; Smyth, 2006; Tatto, 2006; Zeichner, 2010). Additionally, it may, "transform public education from a public good to a private consumer item" (Zeichner, 2010, p. 1556), where education is a commodity (Dahlstrom, 2007; George & Clay, 2008), with parents as private consumers individualistically competing for the best education for their children, rather than as participatory citizens protecting quality education for all. This individualistic, competitive focus on school and student performance decreases attention to equity issues that limit access to quality education, such as funding discrepancies between poor and wealthy districts, potentially reducing society's sense of responsibility to address this societal level inequities (Ravitch, 2010; Reckhow & Snyder, 2014; Smyth, 2006).

Cultural Effects

Along with the emphasis on free market principles, globalization has produced more fluid, widespread immigrant movement across national borders (Bates, 2010), resulting in cultural tensions (Tatto, 2006). With rising racial, ethnic, and cultural diversity, traditionally dominant groups push for protection and (re)ascendance of national 'identity' and traditional knowledge, norms, and behaviors (Bates, 2010), even as indigenous groups and newly arrived, even long-time members of diverse cultural groups find themselves struggling against marginalization or pressures of assimilation. Frequently in this tension, policies and practices protecting tradition and nationalistic loyalty remain relatively unquestioned (Kumashiro, 2010). For example, in the United States opposition to incoming and long-term undocumented Hispanic immigrants is producing calls for sweeping deportation efforts.

In education, this cultural tension produces resistance to multicultural focus. For example, similar to the response evoked in the US during the 1980s economic downturn, educational systems in the UK were criticized for 'wooly' ideas of multiculturalism that supposedly compromised the rigor of the national public education system (George & Clay, 2008). In the USA in 2010, the Arizona legislature banned a successful Chicano/Chicana history curriculum for promoting 'racial soli-

parity' and 'anti-Americanism' (See *Precious Knowledge*, <http://www.pbs.org/independentlens/precious-knowledge/film.html>). The term 'social justice,' linked to issues of inequity in multicultural contexts, is indicted by association. In 2006, facing conservative strong critique, the US teacher education accrediting body (NCATE) removed the term 'social justice' from their official documents; in the UK, the term was similarly removed from the national Professional Standards for Teachers in 2007 (Chubbuck, 2010; George & Clay, 2008; Heybach, 2009; Philpott & Dagenias, 2012). The result can be curricula narrowed to monolithic, nationalistic content, non-critical analysis, and policies that, at best ignore, and at worst, continue marginalization—in other words, reduced recognition, redistribution, and representation for specific racial/cultural groups (Kumashiro, 2010).

Combined Effects

These combined ideological forces—free market principles with individualistically driven competition and rising cultural/nationalistic tensions—are believed to profoundly influence education and, by extension, teacher education. Some argue that these competitive, privatized models disproportionately harm racially/economically disadvantaged group, maintaining hierarchies of privilege (Kumashiro, 2010), while diminishing a sense of social connection and shared responsibility for the suffering of others, what Young (2011) calls a 'Social Connection Model of Responsibility.' The *purpose* of education shifts, from developing citizens, capable of functioning equally in society, to the production of workers who can fill slots in the national/transnational competitive economic machine (Bates, 2010; George & Clay, 2008; Schafer & Wilmot, 2012). *Curriculum* shifts from broad exposure to liberal arts and sciences, where students are encouraged to grapple with multiple perspectives and critical analyses, to 'productive' knowledge—skills and discrete information, at times even scripted—that produces higher test scores and meets competitive demands (Bates, 2010; Ravitch, 2010); Schafer & Wilmot, 2012; Sleeter, 2009). *Pedagogy* shifts from constructivist, student centered methods to didactic, authoritarian approaches designed to raise scores and, often, teach compliance (Bates, 2010; Chubbuck & Buck, 2015; Smyth, 2013). Education can become a utilitarian tool serving economic forces and competing cultural narratives, with the teacher and teacher educator reduced to monitoring and facilitating the system (Apple, 2010, 2011; Bates, 2006, Bates, 2010; Dahlstrom, 2007; Kumashiro, 2010; Zeichner, 2010). This milieu presents a contested and dangerous context, antithetical to teacher education for social justice and calling for thoughtfully reasoned, well-articulated theoretical foundations.

An Articulated Theory of Social Justice for Teacher Education

As Marilyn Cochran-Smith (2010) has argued, “References to or discussions of teacher education for social justice,” with very few exceptions, “have not been grounded in an articulated theory of justice” (p. 449). She identifies this ‘ambiguity’ as a valid critique, coming from both inside and outside the field of education (Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009). Similarly, Gewirtz (1998) and North (2006) agree that ‘social justice’ in education has been an under theorized concept. Our review in preparing to write this chapter has largely confirmed these concerns. Here we provide some possible causes and encouraging remedies to this critique.

Streams of Theory Informing Social Justice Teacher Education

One way of understanding incoherent theory is to recognize the multiplicity of theoretical streams that have informed both understanding and practice of social justice in education, and by extension, in teacher education (see Cochran-Smith et al., 2009; Dover, 2009; Grant & Agosto, 2008; Wiedeman, 2002). Foundational thinking and research are usually grounded in one of the theoretical strands. Though overlapping, each has a different, though overlapping focus, with different, intertwined implications, an understandable circumstance given the complexity and nuance of justice operationalized. Education has historically drawn from within its own discipline rather than others such as political philosophy, etc. The focus of each theory has then been reciprocally influenced by the others. Grappling with this dialectical tension has created a convergence with more complex understanding of social justice in education and more nuanced, informed practice.

For example, the theory of multiculturalism, significantly sparked by the USA Civil Rights Movement, initially influenced social justice in education in the USA (Sleeter & Grant, 1992). The theory was challenged and expanded, however, in Nieto’s (2000) strong call to put equity “front and center” (p. 180) in teacher education, essentially critiquing multiculturalism as a celebratory acknowledgement of different cultural groups with insufficient attention to the structural inequities shaping their access to quality education. Multiculturalism then included social reconstructionism (Banks 2007a, 2007b; Sleeter & Grant, 1992), borrowing from critical pedagogy which calls for recognition, interrogation, and transformation of inequitable structures (Darder, Baltodano, & Torres, 2003; Kincheloe, 2005; O’Donnell, Chávez Chávez, & Pruyn, 2004; Schafer & Wilmot, 2012). Culturally relevant/responsive pedagogy (Gay, 2000; Irvine, 2003; Ladson-Billings, 1994a, 1995; Villegas & Lucas, 2002), with its emphasis on academic excellence, cultural competence, and critical analysis of social issues, continues to be influential in the identification/refinement of socially just pedagogies (Ladson-Billings, 2014; Paris, 2014; Paris & Alim, 2014) that, “perpetuate and foster—...sustain—linguistic, lit-

erate, and cultural pluralism as part of the democratic project of schooling” (Paris, 2014, p. 93). Noddings’ (1984) influential theories on the centrality of teachers’ care for students in the learning process have been critiqued as narrowly identified with white feminists (Thompson, 1998) and lacking the criticality needed to challenge inequitable power relations, so that now expressions of care include a wider range of racial perspectives and a higher level of criticality (Rolon-Dow, 2005; Thompson, 1998; Valenzuela, 1999). Social justice as expressed in participatory, experiential democratic education, fostering students to be engaged citizens (Garratt & Piper, 2010; Guttman, cited in Cochran-Smith, 2004; Michelli & Keiser, 2005; Philpott & Dagenias, 2012) has benefitted from Westheimer and Kahne’s (2004) nuanced distinctions between responsible (informed, voting, etc.), participatory (service, alleviating need, etc.), and justice-oriented citizenship (critiquing/transforming policy), with the last representing activist citizens who address structural inequities. And anti-racism/anti-oppression education (Au, 2009; Calgary Anti-Racism Education, n.d.; Derman-Sparks & Phillips, 1997; Kumashiro, 2000; Kumashiro, Baber, Richardson, Ricker-Wilson, & Wong, 2007; Tatum, 1994), challenged for a relatively exclusive focus on race, is now often complemented by more focus on intersectionality of race, class, gender, etc. (Kaur, 2012). In this cycle of mutual influence, understanding and practice of social justice education, and by extension, social justice teacher education, has evolved. Without knowledge of these theoretical streams, teacher educators would have limited understanding of the complexities of social justice both in the wider social context and in education, with limited educational practice, as well.

Grappling with these tensions and negotiating the evolving complexity can be quite productive for teacher educators and needs to occur more, not less (Cochran-Smith, 2004; McDonald & Zeichner, 2009; North, 2006). Cochran-Smith (2010) demonstrates evidence of that negotiation in her holistic theory of teacher education for social justice. Drawing from a variety of theorists in political philosophy, she identified four points, in mutual tension—autonomy and identity, distribution and recognition—and then contextualizes them in concepts reflecting educational theoretical strands, described above: democratic, anti-oppressive, critical, and multi-perspectival. More teacher educators need to engage in theoretical discussions and processes like these, exploring the tensions among theories of justice, incorporating both education and disciplines such as philosophy or political science (Zeichner, 2009a), to provide deeply explicated, nuanced theory/ies complex enough to ‘house’ the diverse theoretical strands, in mutually informing tension. Grappling with complex and often contradictory theories will be more valuable, however, if we identify the theoretical terms within and against which we can position our dialogue. To that end, we list different models for social justice, suggesting how they may support enriching conversations about social justice teacher education.

Nancy Fraser's Model for Social Justice and Education/Teacher Education

In the past decade or so, theories of justice from moral and political philosophy (e.g., Rawls, 1972, 1999) have been introduced into the discussion of social justice in education. Many education scholars (e.g., Bates, 2006; Boylan & Woolsey, 2015; Cochran-Smith, 2010; Garratt & Piper, 2010; James-Wilson, 2007; Kaur, 2012; Lopes Cordozo, 2012, 2013; Lynch & Baker, 2005; North, 2006, 2008; Reynolds & Brown, 2010; Smyth, 2006, 2013; Westheimer & Suurtamm, 2009; Zeichner, 2009a) have built on Nancy Fraser's theory of justice—both her initial theorization (Fraser, 1997; Fraser, 2003) and her recent reframing (Fraser 2005a, 2005b, 2008, 2009, 2012). We suggest that Fraser's theory may provide a theoretical starting point sufficiently inclusive to house the various theoretical strands and support needed dialogue. Consequently, we briefly introduce Fraser's theory here, making links to education/teacher education in current practice, introducing further theories to complement her work, and drawing implication/recommendations for future work, as a point from which further dialogue can evolve.

In Fraser's view (2012), a definition or ideal of social justice is not possible; however, we do experience injustice, and thus, we can form an idea of justice. Fraser (2008, 2009) suggests the notion of *participatory parity*, that is, the ability of all people to participate on a par with one another, as equals in social interaction, as the central norm—the ideal—against which to evaluate social justice claims and address injustice. Participatory parity serves as an adjudicatory plumb line, if you will, to determine how 'straight and level' our 'buildings' are. We can determine that social arrangements are just if they promote participatory parity in all aspects of social life; we can determine that they are unjust if they create obstacles to participatory parity. Overcoming injustice, then, means dismantling the obstacles that "prevent people from participating on a par with others, as full partners of social interactions" (Fraser, 2008, p. 60).

In contrast to prominent previous conceptualizations of social justice after World War II, aimed at defining universal principles of fairness and equality (Rawls, 1972), Fraser complicates social justice theories by exploring the characteristics and the interaction of two dimensions of (in)justice—redistribution/maldistribution of rights, opportunities and resources (economic) and recognition/misrecognition (cultural)—and by recently adding a third dimension, representation/misrepresentation (political) (Fraser, 2009). In this, Fraser's body of work (1997, 2003, 2005a, 2005b, 2008, 2009, 2012) highlights the multidimensionality of injustice and the multiple complexities in achieving participatory parity by analytically distinguishing these three types of structural inequality. Fraser suggests that we need this analytical distinction if we are to understand how different dimensions of injustice operate alone and reciprocally and how they match (or mismatch), thus masking different roots of injustice. Fraser regards these dimensions as distinct—for which she has been criticized (e.g. see Young, 2008). She does acknowledge that these different injustices rarely exist in 'pure' form, but she uses them as heuristic tools to theorize the

different domains of injustice. Their analytic distinction does not imply that they are not interrelated; on the contrary, we need to understand both their distinction and their interrelatedness, if we are to develop appropriate strategies to address injustices.

The Economic Dimension

First, the *economic* dimension of social justice concerns the (mal)distribution of resources, rights, and opportunities (Fraser, 1997, 2008). Thus, participatory parity would be prevented by economic structures that constrain the distribution of resources or involve exploitation (e.g. when one's labor is being exploited for others' benefit), economic marginalization (e.g. when one is confined to poorly paid work or has no access to work), and deprivation (e.g. when one is denied an adequate standard of living). These economic injustices prevent people from interacting with each other on a par in social life; thus a politics of redistribution is required, suggests Fraser, to reduce the obstacles that prevent participatory parity.

In relation to education/teacher education, distribution/redistribution issues are seen in those policies and practices that exploit, marginalize, and deprive groups of students of access to quality education, which is the means to equal economic participation (e.g. see Boylan & Woolsey, 2015; Cochran-Smith, 2010; North, 2006, 2008; Reynolds & Brown, 2010). This economic dimension is illustrated by segregated schools and tracked/streamed schools/classrooms that differ radically in curricular, pedagogical, and resource quality: 'de facto' resegregation in the USA, apartheid in South Africa and its lasting effect on school segregation, apartheid era remnant of racial divisions in Australia, vestiges of colonialization in Bolivia and others, and class divisions in virtually every nation (see Bates, 2006; George & Clay, 2008; Lopes Cordozo, 2013; Nieto, 2000; Schafer & Wilmot, 2012; Smyth, 2013; Wang & Gao, 2013). Similarly, these studies describe the vast inequalities in the distribution of funding in schools within a country and the failure of many educational systems around the world to develop policies and practices that guarantee access to quality education all perpetuating an already inequitable system of schooling. Corresponding theories of social justice in education/teacher education that address these inequities include equity/equity pedagogy (Banks, 2007a; Nieto, 2000), critical pedagogy (Darder et al., 2003; Kincheloe, 2005; McLaren, 2003), and social reconstructionist multiculturalism (Sleeter & Grant, 1992)—all with the goal of preparing teachers to recognize, interrogate, and challenge structures and practices that create inequitable distribution of resources, at classroom, school, and societal levels.

The Cultural Dimension

Second, the *cultural* dimension of social justice refers to the ways people's attributes are valued or devalued—how these attributes are (mis)recognized (Fraser, 1997, 2008). Social arrangements and institutionalized patterns that depreciate certain

attributes associated with people (e.g., along lines of gender and race) prevent participatory parity. Cultural injustices involve cultural domination by one cultural group over another group which is seen as ‘different’ and, therefore, threatening or inferior; non-recognition by means of authoritative, silencing practices; and disrespect when one is routinely portrayed in stereotypical public and everyday life representations.

In education/teacher education, this dimension of (mis)recognition clearly aligns with theories of multiculturalism (Banks, 2007a; Sleeter & Grant, 1992), culturally relevant/responsive pedagogy (Gay, 2000; Ladson-Billings, 1994a, 1994b; Ladson-Billings, 1995, 2014), and theories of care/critical care (Noddings, 1984; Rolon-Dow, 2005; Thompson, 1998; Valenzuela, 1999). When students’ voices, histories, faces and norms are omitted from curricular materials and pedagogical choices (Banks, 2007a), (mis)recognition is evident in depreciation through silencing. Resegregated schools imply a similar invisibility, perpetuating a deficit view of the ‘other’ (Lopes Cordozo, 2012, 2013; Schafer & Wilmot, 2012; Wang & Gao, 2013).

The Political Dimension

In her more recent theorization (2005a, 2005b, 2008, 2009, 2012), Fraser developed a third, *political* dimension of social justice: representation/misrepresentation. She writes, “... [J]ustice requires social arrangements that permit all to *participate* as peers in social life” (2005b, p. 73, added emphasis). In other words, the political sphere should enable all people to have a political voice and to participate as equals in decisions that influence them—adjudicating justice claims, formulating remedies to injustice, disrupting what Giroux has called “iniquitous relations of power” (1997, p. 313). This political dimension is particularly valuable in the context of globalization. Typically, matters of (in)justice, whether for adjudication or redress, have been framed as domestic matters, belonging in the confines of Keynesian-Westphalian nation states. The effects of globalization, however, have rendered that framing insufficient, as transnational realities—economic, cultural, and political—interact within and across traditional national boundaries, producing effects that are just/unjust to peoples within and across nation states. Fraser calls for a post-Westphalian framing of (in)justice as situated in both nation states *and* globalized, transnational contexts. This suggestion implies that nation-states around the world cannot simply develop policies and plans on the basis of domestic matters while ignoring globalization trends and transnational realities; in practice, for example, they must collaborate more closely if they want their policies (e.g., against poverty and injustice) to be successful (Bates, 2010).

In education/teacher education, the political dimension of representation is less explicitly referenced in the work of educational scholars in the USA, but is frequently included in the work of educational researchers and theorists in Australia, Europe, and South America (e.g., Bates, 2006; Boylan & Woolsey, 2015; Lopes Cordozo, 2013; Reynolds & Brown, 2010). Injustices in this dimension, where actions are being taken without sufficient inclusion of the voices of those directly affected, are evident in multiple arenas, from policy formation, such as testing,

accountability, and international comparisons/league tables (Schafer & Wilmot, 2012; Zeichner, 2009a); to curriculum/pedagogical redefining, such as focusing on 'productive' knowledge and didactic methods to support global economic competitiveness (Bates, 2006, 2010; Dahlstrom 2006, 2007; Dahlstrom, Swarts, & Zeichner, 1999; Smyth, 2006, 2013); to classroom level inclusion of all voices (Applebaum, 2014; Ayers, 2014; Peterson, 2014; Sensoy & DiAngelo, 2014). Even more, simplistic exposure to multiculturalism can allow pre-service teachers' beliefs about 'diversity' to frame some groups that are included and participating (race, class, gender) and others that are 'invisible' and thus not represented (sexual orientation or religion), affecting the level/type of care, the sense of personal responsibility they believe is warranted, and the inclusion of voice and participation for the different groups (Silverman, 2010).

Thus, Fraser joins other political theorists (e.g., Young, 2007, 2011) in extending the scope of justice beyond its traditional confines and dilemmas by adding *representation* to *redistribution* and *recognition* as important dimensions of justice. All three complement the idea of participatory parity; as Fraser argues, all are necessary, but none alone is sufficient for social arrangements/interactions to be just. All three are mutually intertwined and reciprocally complicate each other in forming or thwarting participatory parity and, thus, social justice.

Implications and Recommendations for Teacher Education

Even though none of Fraser's perspectives addresses teaching or teacher education directly, as Cochran-Smith (2010) points out, they are valuable for theorizing teacher education, as indicated in our references to relevant literature. First, Fraser's work is of primary value because it provides descriptive categories—names—for the conditions and interactions we see happening around us continuously, as well as a congruent theoretical framework within and against which we can position our dialogue. This frame subsumes most if not all of the varied theoretical streams that have informed social justice in education, allowing us to 'grapple' with theory as has been recommended by so many (Cochran-Smith, 2010; Grant & Agosto, 2008; McDonald & Zeichner, 2009; North, 2006, 2008; Reynolds & Brown, 2010; Villegas & Lucas, 2002; Zeichner, 2009a).

The second benefit is that Fraser's work establishes a warrant for the political stance that working for greater social justice demands. Social justice teacher education has been critiqued as too political, too ideological (Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009). Yet, the pursuit of justice in education is inherently both political and ethical (Burant, Chubbuck, & Whipp, 2007; Cochran-Smith, 2010; Dover, 2009; Howell, Thomas, & Kapustka, 2010; Westheimer & Suurtamm, 2009; Zeichner, 2009a). When dealing with access to resources, respect, and voice in education, and society at large, political neutrality is nearly impossible. Fraser's theories of justice help clarify and warrant that argument.

As a third benefit, teacher educators can use Fraser's dimensions of social justice and participatory parity as adjudicatory/evaluative lenses to interrogate their own practices and policies and to ultimately struggle to reimagine and to create teacher education as a site for transformation along the three dimensions she suggests (see Fraser, 2008). When we link the development of teacher capacity—knowledge, skills, and dispositions—to a deeper theoretical understanding of social justice (Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009; Grant & Agosto, 2008), teacher educators can examine curriculum, pedagogy, and policies for overt and covert messages that include/exclude (redistribution), devalue (recognition), or silence (representation) groups of people (Quartz, Priselac, & Franke, 2009; Villegas & Lucas, 2002; Zeichner, 2009a). For example, we need to interrogate admission policies to determine if certain groups are 'misframed' (to use Fraser's term), that is, systematically excluded from a teacher education programme. If policies (*de jure* or *de facto*) are judged as unjustly determining who is/who is not eligible for programme admission, revision of those policies is morally and ethically warranted. This example is clearly seen in the policies and practices to support recruiting and retaining a more diverse teaching population (Cochran-Smith, 2010; Dover, 2009; Quartz et al., 2009; Schafer & Wilmot, 2012; Villegas & Lucas, 2002; Wang & Gao, 2013; Zeichner, 2009a; Zeichner & Flessner, 2009). Failure to recruit more diverse populations both misframes possible candidates who are excluded from teacher education programmes and misframes the future education of children and youth. The continuing low, even decreasing number of racially diverse educators will have serious implications on the education of future generations, because it will limit children's opportunity to be educated by teachers from a wide variety of social and cultural perspectives (Cochran-Smith, 2010).

One last benefit of Fraser's theoretical model is that her complex explication of the interrelations between the different forms of (in)justice and the tensions among them widens the framework of understanding and application in socially just teacher education. A theory of social justice in teacher education needs to be comprehensive enough to acknowledge tensions of competing theories and to translate them into effective counter-discourses and counter-practices in the conceptualization of teaching and learning practices. A significant example of this is the insufficiency of primarily focusing on multiculturalism as simplistic celebrations of cultural difference, mentioned earlier. As both members of cultural groups *and* potential political agents, teachers and students are intertwined with political matters that go beyond the recognition and respect of identity. Rather than framing aspects of cultural identity as sufficient expressions of equality, we consistently need to widen the frame of discursive resources found in current understandings of social justice in teacher education to include a greater receptiveness towards political modes of expression. Fraser's theory opens this possibility.

While other theories of justice could also serve the needs of teacher education, we believe much of Fraser's work is particularly well suited to this needed dialogue and we recommend teacher educators strongly engage with her theories. In addition, we recommend an additional dimension for theorizing social justice—Iris Marion Young's (2011) Social Connection Model of Responsibility. We argue that a

theory of social justice for teacher education first needs to explicitly account for the multidimensionality of injustice (Fraser's major contribution), and second, needs to be supplemented with the notion of *responsibility*—its conditions, related barriers, and association with structural injustice—so that teacher education can support present and future teachers in a sustained commitment to activism against societal injustice.

Iris Marion Young's Social Connection Model of Responsibility

The last two decades produced a plethora of writings (in various disciplines) on responsibility, with endless debates on its conditions, related barriers, and links to matters of structural justice (e.g., Freeman, 2007; Kymlicka, 2002; Rawls, 1999; Scheffler, 2001; Young, 2011). While it is beyond the scope of this chapter to revisit all of these debates, we believe Young's Social Connection Model of Responsibility offers a promising approach for linking personal responsibility with structural injustice.

Young argues that, while individuals clearly need to take responsibility for their personal wrong actions—responsibility grounded in *individual* rational and moral agency—they also need to take responsibility for their complicity in structural injustice—responsibility that is *collective* or relational. As she explains, “We need a conception of responsibility *different from* the *standard* conception, which focuses on individual action and its unique relation to harm” (2011, p. 96, italics added). This standard conception, which Young calls the ‘Liability Model,’ has three characteristics: it assigns blame; it emphasizes that acts count as wrong because they deviate from acceptable norms; and it assumes an atomistic view where determining *who* is responsible for harm focuses on isolated *individual* actions or events. This conception does not illuminate individual complicity in structural injustice.

For example, teacher educators have struggled for decades to help individual pre-service teachers from the dominant culture develop justice oriented dispositions (empathy, critical consciousness of privilege, sense of responsibility to address injustice, etc.) (Kaur, 2012). The pre-service teachers typically have resisted any suggestion that they hold personal responsibility to address structurally produced inequities that affect their lives and their students' lives, since those structures are seen as far removed, either in time or space. They claim they are not complicit, since they have not personally committed an unjust action—they cannot be blamed, they are not responsible.

Young (2011) offers a different conception, a Social Connection Model of Responsibility, which holds that all individuals contribute by their actions to structural injustice. Assigning blame (as a warrant for responsibility) is not always adequate for addressing injustice since it produces no material benefit (though the injured party may gain emotional, psychological benefit from naming the offender). Rather than blaming, we need to see the link between the individual and structural injustice. For example, individuals buy products made in sweatshops where chil-

dren are oppressed or participate in housing markets that exclude vulnerable people. As Young explains, "... The specific actions of each [individual] cannot be casually disentangled from structural processes to trace a specific aspect of the outcome" (p. 100). Structural injustice, then, occurs because many individuals and institutions pursue their interests, often with several degrees of separation from those who are harmed in the process; thus, all the individuals who participate in these schemes are responsible—not in the sense of direct responsibility, but in the sense of being part of the processes that cause and perpetuate structural injustice. This is true in modern situations; it is also true in relation to historical structural injustice since the benefits/harm accrued continue to shape people's experience generationally. We are part of a societal collective; our individual actions, no matter how distant from the outcome, are intertwined in the lives of those who suffer the structural injustice. Young's model essentially redefines the notion of responsibility as *response-ability* (Oliver, 2001), that is, as a form of collective witnessing to the Other's suffering.

The social connection model's merger of collective and individual responsibility may prove valuable in teacher educators' struggle to help pre-service teachers change dispositions and criticality, adopt structural understanding of injustice, and, most importantly, embrace responsibility to act. As Young says, social changes require specific actions that

make a break in the process, by engaging in public discussions that reflect on their workings, publicizing the harms that come to persons who are disadvantaged by them, and criticizing powerful agents who encourage the injustices or at least allow them to happen. (2011, p. 150)

Individuals must offer "vocal criticism, organized contestations, a measure of indignation, and concerted public pressure" (p. 151). In so doing, they become 'response-able', capable of making the future less unjust—both morally and practically.

Summary of Theoretical Recommendations

In sum, we value Fraser's work because she offers a sufficiently complex description of the reciprocal and multidimensional nature of (in)justice—redistribution, recognition, and representation—which can both house the multiple streams of theory that have fed into socially just teacher education as well as support on-going interrogation and reform of public institutions and teacher education programmes for greater equity. We recommend that teacher educators grapple with this theory and its complexity to reach deeper, shared understandings that they can use to inform their teacher education programmes. We also recommend adding Young's (2011) Social Connection Model of Responsibility as an additional theoretical perspective with a political and forward-looking view of responsibility based on capacities rather than blame. We recommend that teacher educators come to sufficient agreement to provide a warrant for the elements of social justice in education and to

inform the creation of coherent programmes. When those points of agreement are reached, locally, we encourage widespread sharing of both the process and the thinking that emerged. These two political philosophers are not the only or perhaps even the best theories to consider, but they offer promising possibilities for dialogue and application to create sound theoretical grounding, which the field of teacher education has been accurately criticized for lacking, to warrant and inform our practice. We now turn to research on that actual practice of teacher education to prepare socially just teachers.

An Empirically Grounded Practice of Teacher Education for Social Justice

In 1990, Grant and Secada (cited in Hollins & Guzman, 2006) described a paucity of research related to teaching diverse students (social justice not explicitly named but strongly indicated). In 2006, Hollins and Guzman described the emerging uptick in published empirical work, but they decried the methodological problems and the atomistic, non-generalizable approach of the majority of the studies. Our examination of the literature, almost a decade later, indicates some but still insufficient improvement. The large-scale review of teacher education research conducted by Cochran-Smith et al. (2015) confirms our analysis that stronger work and more work is needed.

Interestingly, however, the field seems to embrace a fairly common description of what socially just teaching looks like (described earlier in ‘Streams of Theory Informing Social Justice Teacher Education’). Cochran-Smith’s (1999) early definition of socially just teaching—“*improving the learning and life opportunities of all students*”—aligns with most educators’, theorists’, and researchers’ formulations, with varying degrees of emphasis (e.g. Chubbuck & Zembylas, 2008; Irvine, 2003; Ladson-Billings, 1994a; Reynolds & Brown, 2010; Smyth, 2013), and delineates practices that encompass Fraser’s dimensions of justice: recognition, redistribution, and representation.

1. Significant academic work for all
2. Curriculum and instruction built on students’ cultural experience
3. Skills instruction to bridge gaps in students’ learning
4. Collaboration (with colleagues, families, and communities)
5. Diversity of assessments, critique of standardized assessment practices
6. Explicit focus on power/inequity issues with accompanying activism

With that type of teacher in mind, teacher education programmes then try to develop the dispositions, knowledge, and skills needed by their pre-service teachers to carry out these practices. In this section, we identify five areas of scholarship related to that development. First, we discuss the development of dispositions and interpretative frameworks. We then examine research on knowledge and skill

Table 28.1 Dispositions associated with socially just teaching

Disposition	Selected sources
Critical racial/cultural awareness of self and of students	Boylan and Woolsey (2015), Chubbuck (2004), Chubbuck and Zembylas (2008), Darling-Hammond (2004), and Nieto (2000)
Recognition/rejection of stereotypes/deficit views, replaced by asset view. Valuing of students'/communities' cultural/linguistic experiences	Cochran-Smith (2010), Ladson-Billings (1994a, 1994b), Reynolds and Brown (2010), Smyth (2013), Valenzuela (1999), and Villegas and Lucas (2002)
Critically caring relationships. Additive approach that values both students' success and development of cultural identity	Rolon-Dow (2005) and Valenzuela (1999)
Respectful relationships/Management styles	Lynch and Baker (2005), Reynolds and Brown (2010), Smyth (2013), and Weinstein, Curran, and Tomlinson-Clarke (2003)
Rejection of lowered expectations/unwavering maintenance of high expectations, high press/high support	Cochran-Smith (2010), Ladson-Billings (1994a), and Payne (2008)
Strong personal, even moral obligation to support students' success	Burant et al. (2007), Cochran-Smith (2010), Payne (2008), Reynolds and Brown (2010), Villegas and Lucas (2002), and Zeichner (2009a)

development related to pedagogy, multicultural/critical curriculum, and activism/advocacy. The third section reports on the role of field placements. The fourth section examines programme graduates' initial efforts to implement socially just teaching. We end with descriptions of some programmes that holistically attempt to develop socially just teachers, followed by a summary of our recommendations.

Dispositions/Interpretive Frameworks

Given the demographic imperative, in the USA and elsewhere (e.g. Canada, Europe, Australia) of an overwhelmingly white, middle class teaching force and an increasingly diverse student population (Goodwin et al., 2014), teachers' dispositional development—cultural consciousness, critical care, asset perspective of students, etc.—is essential (see Table 28.1 for a synthesis of the types of dispositions identified as needed in socially just teachers).

In addition to these dispositions, socially just teachers use a structural rather than an exclusively individualistic/meritocratic interpretative framework to understand students' experiences and to critically analyze institutional/societal inequities

(Chubbuck, 2010; Cochran-Smith, 2004; Villegas & Lucas, 2002; Whipp, 2013; Wiedeman, 2002). Members of dominant groups—by race, class, ethnicity, gender, language, religion, or sexual orientation—are typically blind to institutionalized privileges; an individualistic/meritocratic interpretive framework sustains this oblivion (Castro, 2010; Chubbuck, 2010; Sleeter, 2001). For example, inequitable experiences can be interpreted as just, legitimate consequences of individual merit, while the accumulated effects of structural injustice on students' learning are minimized, with the student and family targeted for blame—they just don't care about education (Valenzuela, 1999). In contrast, socially just teachers see their students as individuals, but their structural interpretive framework also allows them to see students as members of socio-cultural groups, who experience structural privilege/disadvantage that shapes their learning.

Research on Development of Dispositions/Interpretative Frameworks

The overwhelming majority of research on social justice oriented teacher education has long focused on this topic, studying individual courses/field contexts, researched by the instructor, with small samples and qualitative methodologies that are hard to generalize (Cochran-Smith, 2010; Cochran-Smith et al., 2015; Hollins & Guzman, 2006; McDonald & Zeichner, 2009). Kaur's (2012) review of 30 years of relevant articles in *Teaching and Teacher Education* illustrated this focus in the proliferation of research on addressing deficit views and consequent differential treatment of K-12 students. Similarly, Hollins and Guzman's (2006) synthesis of research showed a pattern of pre-service teachers, enrolled in teachers education programmes with some attention to social justice, who didn't feel confident in their ability to work with diverse students; who were open to diversity but tended to stop at the point of discomfort, particularly around the topic of race; and who showed sympathy rather than respect for the Other. Only about 50 % reported a willingness to teach in urban areas (Hollins & Guzman, 2006).

Developing these requisite dispositions can be an emotional, even painful/discomforting task for dominant culture pre-service teachers (Boylan & Woolsey, 2015; Brooks, 2011; Chubbuck, 2004, 2008; Chubbuck & Zembylas, 2008; Darling-Hammond, 2004; Kumashiro, 2000) often requiring a "life-long journey of transformation" (Nieto, 2000, p. 183). The need for this transformation continues in the millennial generation. For example, Castro's (2010) review of studies of incoming pre-service teachers' dispositions, revealed that, even though the millennial generation has had more exposure to racial/cultural diversity, they still held a generic, celebratory view of multicultural education, showed little understanding of institutionalized racism, maintained significant deficit views of students of color, and believed in individualistic meritocracy with an inverse correlation with critical awareness of structural inequity.

Recent studies of interventions to develop social justice dispositions continue to show mixed results. For example, Boylan and Woosley (2015) reported on four beginning pre-service teachers' response to discussions of educational inequity.

Based on the pre-service teachers' struggles seen in the discussions, they recommended teacher educators employ a balance between an inquiring, discomfiting pedagogy and a compassionate, empathetic pedagogy to support their struggle in identity work, stating that they hope their graduates will provide similar challenge and compassion for their future students. Silverman's (2010) survey of 69 pre-service teachers from various locations in their teacher education programme showed that they identified certain groups (such as race and class) under the umbrella term 'diversity,' with a corresponding sense of responsibility for those students' success, while they failed to include other groups (such as sexual orientation and religion), with a corresponding *lack* of sensed responsibility for the well-being of those students. And finally, Mills' (2009) study of four pre-service teachers nearing the end of their programme found that two held fairly strong deficit views of diverse students and two held positive views, in spite of being in the same programmes. Mills speculated that the pre-service teachers' dispositions upon entering the programme may be more powerful than any interventions done during their course of study.

Similar ambiguity emerges around adoption of a structural interpretative framework. Tinkler, Hannah, and Tinkler's (2014) exploration of the effect of service learning on students' views of inequity showed that some embraced a more structural, justice oriented approach to issues while others maintained an individualistic interpretation, seeing themselves as extending 'charity' to those in need. Pollack, Deckman, Mira, and Shalaby (2010) studied data from pre-service teachers' class discussion on racism, informal conversation, and journal entries, finding that some were able to adopt a structural understanding while others maintained an individualistic understanding of racial privilege and inequity. Salinas and Blevins (2013) utilized a historical lens to help students reflect on their own intellectual biography, including cultural experience. They presented three pre-service teachers who showed positive dispositional and interpretive framework results, but they expressed a hope, suggesting uncertainty, regarding long-term effects of the results: "It is our hope that the process of reflection and growth these future teachers were engaged in during their pre-service years will sustain a [future] focus on critical pedagogy and social justice" (p. 24).

Top-down national initiatives to foster justice oriented dispositions in teachers, without sufficient attention to development, appear unproductive. Wang and Gao (2013) described how a national effort in China, to recruit and train teachers from metropolitan areas to work in less-resourced, lower quality rural schools, faced opposition as pre-service teachers refused the rural jobs, fearing their personal loss of social mobility if they worked in the poorer communities. Wang and Gao recommended more explicit interventions to developed dispositions to motivate teachers to serve the poor and more careful recruiting of pre-service teachers with justice orientations already in place. Similarly, Lopes Cordozo (2012, 2013) described how the national Bolivian initiative to position teachers as agents of decolonization, inter-/intra-culturalism, and social justice – '*vivir bien*'—was met with opposition from the many traditional *normales*—teacher education programmes—that resisted the initiative as top-down, unsupported, and externally driven. Studies from international settings, such as these, show both the similar struggle to develop social justice

oriented dispositions as well as how the meaning associated in one place may be totally different from another.

One positive finding highlights the success of more holistic, programme-wide attention to the development of dispositions aligned with socially just teaching. Collopy, Bowman, and Taylor (2012) studied the dispositional development of pre-service teachers participating in both experiential and theoretical discussion of social justice perspectives embedded across multiple sites, over time. Three initiatives over 3 years positively affected 12 pre-service teachers' dispositions: first, observation/tutoring/volunteering in an urban, majority African American professional development school, where university professors and 7–12 educators collaborated to address the achievement gap; second, a course prompting critical cultural consciousness, combined with additional field hours at the school; and third, clinical rounds at the school collaborating with 7–12 teachers and university instructors in pedagogical decision-making. Findings showed significant increase in positive attitudes towards low socio-economic students of color, with 75 % of the pre-service teachers accepting positions in urban schools upon graduation.

Recommendations for Developing Dispositions/Interpretive Frameworks

In summary, the more recent research, on the whole, has lacked sufficient description of the larger teacher education programmes to allow readers to determine if the effect is actually the result of the specific course being studied or other factors. Findings have been ambiguous, some successes, some failures. Findings describing success primarily reflect short-term changes, with few follow up studies to determine their 'staying power' once the course ends or their effect of changed dispositions on practice in their future classrooms. In addition, most of the pedagogical interventions to produce dispositional development are not sufficiently described to allow the reader to actually 'see' the practice (readings, discussion, journaling), and even when they are described, many simply employ practices that have been used over the past several years (autobiographical analysis, reflective journaling, etc.). Teacher educators' interventions for dispositional development seem to vary only slightly over time, producing similarly slight variation in outcomes. Emerging themes indicate that multiple, varied, and collaborative sources of input are more effective than single-type interventions; also, it seems that changing personal dispositions may be easier to do than shifting interpretive frameworks.

The relatively atomistic self-studies do serve educational research by shifting the production of knowledge to those who 'live' the experience and by offering specific suggestions to improve our practice locally (Carr & Kemmis, 2004; Cochran-Smith et al., 2015; Zeichner, 2009a). Though recommendations beyond local/specialized application are challenging, a few recommendations appear warranted. First, research demands careful methodological rigor to increase validity/transferability of findings. Second, we need to study more collaborative, multi-sourced, and innovative interventions where field experiences and coursework mutually support development. Third, current research requires additional larger, longitudinal, multi-

site research and follow-up studies of graduates now in the field, to inform our practice, focus continued research, and guide policy. Without these changes, we run the risk recycling techniques, contexts, and ‘insights’ through years of research, with limited progress and insufficient effect on the larger arenas of educational practice and policy formation. Fourth, as quality research progresses, we need to compile and share a detailed compendium of effective ‘best’ practices/programmes—not to create identical programmes but to spark ideas around concrete practices which can then be operationalized in local contexts. And finally, given the struggle to develop the necessary dispositions/interpretive frameworks, we reinforce the need to recruit and retain a more diverse teaching force (racial, linguistic, life experience, etc.) whose background may already support the dispositions and structural interpretive framework needed (McDonald & Zeichner, 2009; Villegas & Lucas, 2002; Wang & Gao, 2013; Zeichner, 2009a). As Haberman (1991) suggested years ago, it may be easier to pick the right people rather than try to change the wrong ones.

Pedagogy, Curriculum, Activism/Advocacy

Socially just teachers craft and practice pedagogy, curriculum, and activism/advocacy with a social justice focus. These elements can be loosely, though not perfectly, housed in the elements of ‘culturally relevant pedagogy’—academic excellence, cultural competence, critical analysis and activism (Ladson-Billings, 1994a). These elements are also seen in work of other scholars of socially just teacher education (see Bates, 2006, 2010; Dahlstrom, 2007; Dover, 2009; Gay, 2000, Gray, 2010; Hackman, 2005; Irvine, 2003; Reynolds & Brown, 2010); Schafer & Wilmot, 2012; Wang & Gao, 2013; Westheimer & Kahn, 1998; Westheimer & Suurtamm, 2009; Whipp, 2013; Zeichner, 2009a). First, socially just pedagogy requires ‘best practices’ that support academic excellence—efficacious teaching, rigorous and expansive curricula, and adaptations that support all students’ learning—since a social justice focus without supporting children’s acquisition of high status knowledge and skills is inherently unjust (Chubbuck, 2010; Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009). Though not exclusively, this pedagogy is often described as constructivist, with a sociocultural orientation. Cultural competence is seen in the pedagogical/curricular incorporation of students’/communities’ cultural knowledge. And finally, socially just teaching includes curriculum marked by critical analysis of justice issues and, ideally, action to redress those injustices (Ladson-Billings, 1994a, 1994b) (See Table 28.2.)

Table 28.2 Pedagogy, curriculum, activism associated with socially just teaching

Pedagogy, curriculum, and activism	Selected sources
Academic Excellence (i.e. equity pedagogy; rigorous, high status skills and knowledge; constructivist/sociocultural pedagogy)	(Banks 2007a, 2007b), Bates (2010), Cochran-Smith (1999, 2010), Cochran-Smith et al. (2009), Delpit (1995), Ladson-Billings (1994a), Smyth (2006, 2013), and Villegas and Lucas (2002)
Cultural competence (i.e. Instruction built on students'/communities' knowledge, norms, communicative practices. Multicultural curriculum to mirror students' lives and preserve student cultural identity)	Au, Mason, and Scheu (1995), Banks (2007b), Chubbuck (2010), Gay (2000), Ladson-Billings (1994a), Lee (2007), Moll, Amanti, Neff, and Gonzalez (1992), Paris (2014), Paris and Alim (2014), and Valenzuela (1999)
Critical curricular analysis (multiple perspectives; structural interpretation of injustice; critical focus on justice topics in curriculum)	Allen (1999), Bates (2006, 2010), Castro (2010), Christensen (2000, 2009), Chubbuck (2010), Cochran-Smith (1999, 2010), Cochran-Smith, Shakman et al. (2009), Comber and Nixon (1999), Dover (2009), Garratt and Piper (2010), Gutstein (2006), Gutstein and Peterson (2005), Hackman (2005), Kumashiro (2000), McDonald and Zeichner (2009), Michelli and Keiser (2005), Philpott and Dagenias (2012), Sleeter and Grant (1992), Tan and Calabrese Barton (2012), Westheimer and Kahn (1998, 2004), Westheimer and Suurtamm, (2009), Whipp (2013), Zeichner (2009a), and Zimmet (1987)
Advocacy/activism (challenging themselves and equipping their students to act transformatively in classroom, school, and society)	Boylan and Woosley (2015), Carlisle et al. (2006), Chubbuck and Zembylas (2008), Cochran-Smith (2004), Darling-Hammond (2004), Garratt and Piper (2010), Giroux (1988), Kincheloe (2005), Kumashiro (2000), McLaren (2003), Nieto (2000), O'Donnell et al. (2004), Sensoy and DiAngelo (2014), Westheimer and Kahne (2004), and Westheimer and Suurtamm (2009)

Research on Development of Socially Just Pedagogy, Curriculum, and Activism

Early on, little research focused on developing pre-service teachers' pedagogy, curriculum, and activism/advocacy explicitly linked to social justice; research that did showed the same methodological concerns mentioned earlier. Our investigation and others show that this pattern continues (Cochran-Smith et al., 2015; Hollins & Guzman, 2006). For example, on one hand, research/theorizing of constructivist pedagogy with a sociocultural orientation is prevalent throughout teacher education research. Additionally, research/theorizing of this pedagogical approach, with a specific linked to social justice, shows success in supporting student learning of content and skills in various disciplines (e.g. in science see Bianchini, Akerson, Barton, Lee, & Rodriguez, 2012; Tan & Calabrese Barton, 2012; Zozakiewicz & Rodriguez, 2007; in math see Gutierrez, 2013; Gutstein, 2006; Gutstein & Peterson, 2005; in literacy see Christensen, 2000, 2009; Lee, 2007; Lewis, Encisco, & Moje, 2007;

Moje & Lewis, 2007). What seems to be missing, however, is an examination of *how* teacher education programmes help pre-service teachers conceptualize those pedagogies as explicitly linked to social justice goals and what effect that linkage has on their learning and future practice. While this may seem like a slight distinction, we believe the goal of developing teachers committed to social justice and its accompanying pedagogies would be strengthened if that link were made explicit. This absence reflects how teacher education programmes can marginalize concepts of social justice to stand-alone classes, separating socially just dispositions from pedagogy (Cochran-Smith et al., 2015; Hollins & Guzman, 2006). This is often the case, reflected in the paucity of holistic programmes where themes of social justice are embedded throughout. The importance of explicitly linking social justice to pedagogical choices emerged in Clarke and Drudy's (2006) mixed methods study examining pre-service student teachers' attitudes/dispositions towards diversity and preferred teaching style. Findings showed that pre-service teachers expressed tolerance to diversity, but that tolerance decreased the more preservice teachers perceived the diverse (immigrant) populations impinging on Irish society (perception that the immigrants took local jobs, abused welfare systems, etc.). These attitudes then slightly correlated with the pre-service teachers' choice of conservative, traditional pedagogies, with less differentiation, suggesting a need to explicitly connect examination of dispositions and pedagogy.

Research on developing pedagogies, critical curricula, and activism in specific content areas is somewhat more prevalent, though at times, it defaults to dispositions rather than content pedagogy/curricula. For example, Johnson's (2012) critical ethnographic study of two pre-service secondary English language arts teachers' implementation of social justice commitment during student teaching revealed that, while they demonstrated a 'literacy' of resisting deficit views of students, they struggled to express either a critical perspective or activism amid the stresses of the high poverty school context. Johnson speculates that she (and her programme) ill-prepared them to address the disconnect between serving their students' individual needs and transforming the inequities of the system in which they resided, referencing how content, foundations, and methods classes are often disjointed.

Some positive outcomes in the development of socially just pedagogy and curriculum are seen in the use of concrete versus theoretical examples in methods courses as well as collaboration between theoretical classes and field based practice, but development of critical curricular analysis and activism are much less positive. In mathematics education, Leonard and Moore (2014) studied their own mathematics methods course, drawing on recommendations from a synthesis of culturally relevant mathematics methods (Leonard, Brooks, Barnes-Johnson, & Berry, 2010) to include concrete examples of culturally relevant mathematics lessons (i.e., curriculum based on students' lives), cultural knowledge (of themselves and their students), and strong mathematics content. They found that 88 % of their pre-service teachers produced lesson plans with academic rigor, culturally based curriculum, and connections to families, but their lesson plans did not include critical analysis of justice related issues or discussion of activism/advocacy. Aguirre, Zavala, and Katanyoutanant (2012) mirrored these findings. Their study of the effects of paring

pedagogical content knowledge with culturally relevant mathematics teaching in their methods course found that pre-service teachers' lesson plans incorporated students' home languages and community funds of knowledge, but largely omitted a critical justice focus. They speculated that this absence reflected a lack of knowledge of *how* to include a more critical focus rather than ideological opposition. In science education, McCollough and Ramirez (2012) described how pre-service teachers' participation in 'family science learning events,' paired with coursework on culturally relevant pedagogy, additive approaches (Ladson-Billings, 1994a; Valenzuela, 1999), reduced pre-service teachers' deficit views and increased reported self-efficacy for teaching science to diverse students, but no mention was made of increased critical societal analysis or activism.

This struggle to help preservice teachers develop the ability (and willingness) to critically analyze justice issues is challenging. Research by Bhopal and Rhamie (2014) and Garratt and Piper (2010) suggested all pre-service teachers need stronger foundational grounding (sociology, history, civic education, philosophy and political science) to gain the necessary conceptual tools to support discussion of controversial justice issues with their future students. This struggle among teacher educators is also implicated. Sensoy and DiAngelo (2014) argued that the typical guidelines for safe discussions—"respect differences" and "everyone's opinion matters"—obscure power relations and allow white/dominant perspectives to ascend. Instead, grappling with conflicting ideas; analyzing personal defensiveness; recognizing/interrogating personal social positionality; differentiating between safety and comfort can help pre-service teachers, "*lean into* rather than *away from* difficult content" (p. 8). Cohen et al. (2013) similarly recommended adequate attention to the complexity of reproducing binary identities that ignore intersectionality among both instructors and pre-service teachers. Similarly, Galman, Pica-Smith, and Rosenberg (2010) described instructors' 'pedagogy of niceness' that protected dominant privilege, and Philip and Benin's (2014) study revealed how whiteness was instantiated in the instructors' discourse at programme level, with both silencing rather than supporting critical analysis.

Research on how pre-service teachers eventually function as advocates and activists in their K-12 classrooms was almost non-existent. This is certainly reasonable since student teachers typically are not positioned to safely express activism or advocacy beyond the level demonstrated by their cooperating teachers, a circumstance that further complicates the struggle to develop socially just teachers. Consequently, we will report research on activism later, as seen in the first years of practice.

Recommendations for Pedagogy, Curriculum, Advocacy/Activism

Recommendations for developing socially just pedagogy, curriculum, and activism include increased levels of research, with the same recommendations of more rigorous, larger, multi-site studies over time. Second, since the goals of culturally relevant pedagogy—academic excellence, cultural competence, and critical analysis/

activism—at least partially align with recognition, redistribution, and representation (Fraser, 1997, 2008, 2012), we recommend incorporating this theoretical understanding into our pre-service teachers' knowledge base, to provide a framework within which pedagogy, curriculum, and activism can be both warranted and informed. Third, we recommend closer links between coursework and fieldwork to provide both multiple exposures and opportunities to witness concrete examples of collaboratively developed and implemented culturally relevant pedagogy and curriculum. This collaboration will also give opportunities for pre-service teachers to see and normalize the real life challenges of socially just teaching inherent in teachers' everyday work. And to undergird all of this, we recommend that teacher educators do the same work—critical reflection; collaborative critique, creation, and implementation of culturally relevant methods and curricula; and advocacy/activism in the larger field of education—that they ask of their pre-service teachers.

Field Placements and Developing Socially Just Educators

The role of field placements is critical in all pre-service teachers' development, and particularly for teachers with a social justice focus (Whipp, 2013). To reach this goal, many teacher preparation programmes have constructed field placements in more diverse contexts (Hollins & Guzman, 2006). While the research on this topic suffers from the same methodological critiques raised at previous point, some promising practices appear in community engagement (community-based inquiry, community immersion, etc.) and practitioner inquiry stances (e.g. action research, critical practitioner inquiry, etc.) (Cochran-Smith et al., 2015).

Community Engagement

Ladson-Billings (2001) recommended early significant community engagement for pre-service teachers in order to support dispositional and pedagogical development to work effectively with racially diverse students. Even in lesser amounts, community engagement supports this development. For example, Farnsworth (2010) reported on three pre-service teachers' work in community based inquiry projects who displayed varied discursive identities/foci: 'academic' (integrating community experiences for good teaching); 'community' (engaging in community activism); and a synthesis of the two, more aligned with socially just teaching. Though the three had different prior experiences with diversity, Farnsworth maintained that community based inquiry can help support development of the synthesized identity. Handa and Tippins (2013) described how two pre-service teachers' extended community immersion in the Philippines created a 'third space' between centuries-old indigenous farming practices and the colonial influence of Western technology. With their host families, they located typically decontextualized science facts in community life and critically challenged assumptions in mainstream science

education. McDonald, Bowman, and Brayko (2013) described how two pre-service teachers' pre-student teaching community-based placements (YMCA, Boys and Girls Clubs, etc.) supported deeper understanding of their future students, more complex conceptions of diversity, and an alternative perspective for analyzing schooling. Regarding pedagogy, Beiler (2012) studied 79 English methods preservice teachers as they analyzed their field placement communities and then constructed lesson plans which were evaluated for meeting both accreditation standards and the social justice goal, 'respect for all social groups' (Cochran-Smith, 2010). Lesson plans with standards criteria scores also contained more content and community knowledge connections, implicating the power of community experience to support both good teaching and socially just teaching, while simultaneously demonstrating that they are synonymous (Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009; Dover, 2009; Westheimer & Suurtamm, 2009).

Practitioner Inquiry

The role of practitioner inquiry/action research in teaching and teacher education has a long, rich history, with potential to create a more socially just educational system and society as a whole (Carr & Kemmis, 2004; Cochran-Smith, 1999; Zeichner, 2009a). Grounded in the 'concerns and practices of teachers' and teacher educators, this methodology can produce research *for* education, rather than research *about* education (Carr & Kemmis, 2004, pp. 4–5). Studies using practitioner research highlight the importance of shifting knowledge production to those working in the field (Carr & Kemmis, 2004; Dahlstrom, 2006, 2007; Zeichner, 2009a, 2009b); the need for critical research that challenges inequities at both micro- and macro-levels; and the value of meaningful, supportive collaboration among multiple stakeholders. Pre-service teachers' use of practitioner research, then, makes sense and is widely recommended (Bates, 2010; Cochran-Smith, 2010; Smyth, 2006, 2013; Zeichner, 2009b). The studies reviewed below illustrate this potential in developing socially just teachers.

Furman, Barton, and Muir (2012) described how an urban middle school student teacher collaborated with his cooperating teacher on a transformative action research project, taking pedagogical risks and studying the resultant student learning. Findings showed the preservice teacher shifted from deficit views of his students to an asset perspective, with himself serving as co-constructor with them, rather than direct provider, of knowledge/relevance. Follow-up interviews 4 years later, however, showed his asset view decreasing and his role as direct provider of knowledge/relevance increasing. The challenge of actual teaching diminished the positive effects, raising questions about the need for on-going support.

An inquiry stance can empower preservice teachers to adopt social justice identities, as well. In 1993, shortly after gaining independence from South Africa (Dahlstrom, 2006), teacher educators in Namibia introduced their pre-service teachers to Critical Practitioner Inquiry (CPI), thus shifting interpretation of educational experiences from the colonizing 'north' to the local practitioners (Dahlstrom, 2006;

Dahlstrom et al., 1999). Zeichner (2009a) described how a Namibian female student teacher studied six female students' lack of participation in her science class; she changed her practice and elicited increased participation. While it may seem small, this example, in a nation newly released from decades of colonial subjugation, represents a shift in 'social capital' from dominant forces into the hands of the formerly oppressed (Dahlstrom, 2006; Zeichner, 2009a). Dahlstrom (2007) described a similar emancipatory effect of CPI among pre-service teachers in Ethiopia where 9–12 grade students were being taught by televised South African teachers, with local Ethiopian teachers serving as technicians—monitoring, summarizing, and delivering education as a commodity in a global market. Pre-service teachers used CPI to examine, interrogate and expose these practices. In one student's words, "CPI gave me the confidence and the critical eyes to look at things around me" (p. 63) and "I critically started to think about ... education for social justice. I was reborn after taking this course" (p. 64).

Recommendations for Field Placements

The potential of field placements to develop socially just dispositions, pedagogical/curricula skills, and, to some extent, activism through community engagement and practitioner inquiry is multilayered and warrants further attention. By foregrounding the experience of marginalized communities, community engagement positions communities and pre-service teachers as collaborative constructors of knowledge and agents of change, sparking greater responsibility as pre-service teachers witness their students'/communities' experiences of inequity apart from schools. Practitioner research can provide pre-service teachers a critical inquiry lens to analyze educational injustice and to empower them to see themselves as agents of change. Recommendations for field placements, then, first include continuing to provide and study the effects of both community engagement and practitioner inquiry. This research needs to tease out how pre-service teachers' racial/cultural identity, prior experiences with diversity, and experience with other coursework also may influence the outcomes reported. This emphasis implicates a range of important scholarship, not always applied to social justice goals, including teacher identity, practical knowledge, teacher beliefs etc., which are beyond the scope of this chapter (see Beauchamp & Thomas, 2011; Beijaard, Meijer, & Verloop, 2004; Fives & Buehl, 2012; Gay, 2015; Zembylas & Chubbuck, 2015). Second, follow-up studies are needed to examine whether or not these effects extend into the field. Third, we need to collect findings of effective practices and share them with social justice teacher educators in different contexts. And a fifth recommendation calls for teacher educators and practicing teachers to critically challenge the increase in externally imposed accountability measures, for student teachers (in the USA, see edTPA, n.d.), practicing teachers, and teacher educators, which cannibalizes the time needed for studying their own practice/context (Zeichner, 2009a). While accountability for quality teacher education is legitimate, some argue that redefining teachers from

decision-making professionals and organic intellectuals (Giroux, 1988) to technicians who meet externally imposed benchmarks diminishes professionalism with negative effects (Cochran-Smith, 2010; Zeichner, 2009b). Practitioner inquiry by definition counters that deprofessionalizing, positioning pre-service teachers as intellectual producers of knowledge and practice; thus, efforts to guard the use of action research in social justice teacher education are appropriate (Bates, 2010; Cochran-Smith, 2010; Smyth, 2006, 2013; Zeichner, 2009b).

Evidence of Teaching Practice of Programme Graduates

The field needs to attend to how well the social justice education of our programmes translates into beginning teachers' actual practice. If positive changes to dispositions, pedagogy, curriculum, and activism occur, do they last and with what effect? This question is seriously under-researched, with existing studies showing the early career teachers' difficulty with this next step.

Research on Socially Just Practice in the Field

Picower (2011) studied the formation of a Critical Inquiry Project (CIP) with six first year urban teachers, graduates of her teacher education programme. Their collaborative discussions about embedding social justice pedagogy into their practice and the issues they encountered provided a 'safe haven' of insights, encouragement, and support, much needed in schools marked by climates of fear and pressure to conform. The CIP helped them operate 'under the radar' in pedagogical and curricular support to develop students' critical/activist perspectives. Their own activism to challenge their school environments, however, was slight.

Agarwal, Epstein, Oppenheim, Oyler, and Sonu (2010) studied three recent graduates, (Black-Haitian, multiracial, and white), who engaged their students in dialogue around inequitable social hierarchies. Participants expressed feelings of personal inadequacy, disconnect between preparation and actual teaching, and uncertainty about young students' capability to engage social justice topics. The authors recommended that teacher educators explicitly normalize such challenges in teacher education programmes, providing examples of struggling social justice teachers, to disperse any idealized, unrealistic expectations.

Similarly, Kelly and Brandes (2010) studied 20 programme graduates' (mixed age and race) description of how their commitment to social justice evolved in their early years of teaching (1–6 years). Though their vision of socially just education had not significantly changed, their sense of the possible was diminished, due to job demands; resistance from students, colleagues and administrators; pressures of externally imposed accountability/assessments; and difficulty translating anti-oppression education theory into practice. The authors recommended critical, transformative practitioner inquiry throughout the teacher education programme;

reflection on personal social identities; on-going communities to support inquiry and action; and clearly articulated warrants—that is, “institutional backup” (p. 400)—to support anti-oppressive teaching in the face of local opposition.

And finally, Cochran-Smith et al. (2009) tracked 12 graduates from their programme into their second year of teaching. Data showed the teachers strongly emphasized student mastery of rigorous content, respectful relationships with students and families, and differentiation to address individual students’ learning struggles. Teachers did not, however, focus on structurally produced inequities and activism to address such. Cochran-Smith and colleagues asserted that socially just teaching does produce quality learning, countering critiques leveled against it (Cochran-Smith et al., 2009), but they questioned how realistic structural analysis and activism will be early in a teacher’s career.

Recommendations for Beginning Teachers’ Socially Just Practice

The themes of unsupportive context of the schools and the level of challenge/support provided in the field suggest recommendations for moving forward. First, we need to normalize the challenges of enacting social justice teaching, with examples, to disperse potentially disillusioning, idealized thoughts that success will come easily. Second, we need critical, transformative practitioner inquiry throughout programmes followed by opportunities for collaborative practitioner inquiry when graduates enter the field. And third, we need to create on-going collaboration/practitioner inquiry to support critical reflection into social/cultural identities, to ask questions and create a sense of belonging, and to suggest and support criticality and activism. Thinking that our graduates will leave our programmes and seamlessly, effectively practice all aspects of socially just teaching is naïve. Clearly, we need to extend our support of them into the field.

Holistic Teacher Education Programmes

Finally, holistic teacher education programmes, where knowledge, skills, and dispositions related to socially just teaching are coherently embedded, are much needed. A string of unrelated courses in teacher education, in general, is not effective in preparing successful teachers (Hammerness, Darling-Hammond, Grossman, Rust, & Shulman, 2005). The added challenge of preparing socially just teachers heightens the need for programme coherence—a holistic, ubiquitous embedding of equity that has been long demanded (Cochran-Smith, 2010; Nieto, 2000; Zeichner, 2009a). Yet such programmes are few as most confine justice issues/diversity issues to a single, add-on course, with insufficient larger programmatic change (Cochran-Smith et al., 2015; Hollins & Guzman, 2006). The current number of holistic programmes, though still quite small, has grown since 2000 and can be found existing across national contexts, with common themes: (1) explicit focus on some aspect of social

justice; (2) emphasis on diversity/cultural awareness; (3) inquiry/action research projects frequently including activism/advocacy; and, (4) collaboration among teacher candidates, university instructors, K-12 teachers, and community members.

Kelly and Brandes (2010) described how their British Columbia, Canada, teacher education programme explicitly foregrounds an anti-oppression model in all courses, with pre-service teachers critiquing school structures and conducting critical/transformational action research projects during their practicum. Zeichner and Flessner (2009) described teacher education at York University, Canada, where 50 % of pre-service teachers are culturally/racially diverse, with courses critically examining the social and political forces that shape schooling and fostering their critical cultural identity. Additionally, they experience community engagement through service learning and collaborate on action research projects in school contexts, with cross-race conversational partners and learning communities with K-12 practitioners and university instructors.

Cochran-Smith et al. (2009) described the programme at Boston College, where teacher educators agreed on five principles to infuse in all courses and field placements: (1) explicit promotion of social justice; (2) learning as knowledge construction; (3) inquiry into practice; (4) affirmation of diversity; and, (5) collaboration with others. Pre-service teachers conduct an action research project during their final practicum. And finally, Kumashiro et al. (2007) described the 1980s–1990s school and teacher education practice in Puerto Alegre, Sao Paulo, Brazil. Considered organic intellectuals and societal change agents, teachers under Paulo Freire’s leadership generated community-relevant justice issues, taught knowledge and skills to analyze issues, and, collaborated with students to challenge those injustices. The accompanying teacher education included formation of supportive communities, development of all aspects of quality teaching, and an expressed commitment to an activist, collective struggle for social justice.

Recommendations for Holistic Programmes

We recommend researching such programmes, individually and across multiple sites, over time in the programme and into the first years of teaching, to identify the *methods* used to prepare their pre-service teachers, document the actual *outcomes* in teaching performance, and describe the *impact* on student learning. In addition, we recommend that thorough descriptions of the components of such holistic programmes—theoretical grounding/warrants of practice, organizational schemes, detailed description of course readings and teaching methods, and field placement experiences—be compiled and shared with the profession.

Table 28.3 Summary of recommendations for teacher education for social justice

Summary of recommendations	
Theory	<p>Consider use of Fraser’s model for social justice and Young’s Social Connection Model of Responsibility</p> <p>Collaboratively grapple with theory to gain deeper, more complex understanding of social justice</p> <p>Use theoretical understanding to provide warrant for socially just teacher education and to interrogate/inform teacher education programme policies, content, and practices</p> <p>Engage in cross-site conversation on theory</p>
Practice: dispositional/interpretive framework	<p>Continue research of innovative teacher education interventions with greater methodological rigor</p> <p>Conduct more holistic, multi-site, longitudinal research of dispositional/ interpretive framework development</p> <p>Create compendium of teacher educator best practices (pedagogies, curriculum, field experiences, etc.)</p> <p>Recruit, retain, support diverse teacher candidates and candidates with social justice orientation</p>
Practice: pedagogy, curriculum, activism	<p>Increase rigorous, longitudinal, cross-site research of practices for developing pedagogy, curriculum, and activism</p> <p>Ground warrant and content of social justice pedagogy, curriculum, and activism in larger theory of social justice</p> <p>Link courses, fieldwork with opportunities to observe, collaboratively plan, and enact culturally relevant pedagogy</p> <p>Engage in the same work (reflection, culturally relevant/constructivist pedagogy, activism, etc.) asked of pre-service teachers</p>
Practice: field placements	<p>Create compendium of best practices</p> <p>Protect and expand use of collaborative community engagement and practitioner inquiry, individually and in collaboration, throughout teacher education programme</p> <p>Conduct follow-up research on the effectiveness of community engagement/practitioner research</p> <p>Critique and resist policies that would interfere with practitioner inquiry</p> <p>Create compendium of best practices</p>
Practice: graduates in first years of teaching	<p>Normalize challenges of enacting social justice teaching</p> <p>Continue/increase practitioner inquiry collaboratively, among teachers, teacher educators, pre-service teachers, and community</p> <p>Provide collaborative support groups of graduates, for reflection, problem-solving, sharing ideas</p>
Practice: holistic programmes	<p>Conduct rigorous longitudinal research of <i>methods, outcomes, and impact</i> of holistic programmes, individually and across sites</p> <p>Create and share compendium of explicit, detailed descriptions of all aspects of coherent programmes</p>

Conclusions and Future Directions

These recommendations (see Table 28.3), drawn from considering the context, the theory, and the practice of socially just teacher education, operate together, not in isolation from each other. And they operate best as we are willing to critique ourselves, never defending weaknesses in either our nations' schools or our teacher preparation programmes (Fraser, 2005a, 2005b; Kumashiro, 2010). Our aim is excellent preparation of qualified teachers capable of pursuing all the elements of social justice. We submit these recommendations to help support reaching that goal.

Woven throughout the recommendations derived from our examination of the context, theory and practice of socially just teacher education are common threads that cohere all and can orient future efforts. First, we need to increase *political awareness* in our preservice teachers and ourselves if we are to understand forces that may prove antithetical to our goals of social justice in education. While we need to teach knowledge and skills that allow all children to achieve economic stability, and we need to respond to the tensions of cultural pluralism and tradition, we equally must remain separate and able to critically analyze and wisely select our response to both economic and cultural demands (Bates, 2010). Second, *theoretical grounding* is important throughout. We need to grapple with theory, such as Fraser's theory of justice—recognition, redistribution, and representation—and Young's theory of Social Connection Model of Responsibility, to deepen our understanding, to inform our practice, and to cogently provide thoughtful warrants to support our preservice teachers in their struggle for greater justice. Third, our efforts must be *holistically coherent* throughout our programmes. Our pre-service teachers need recursive, thematic learning experiences to construct meaningful understanding and application of the knowledge, skills, and dispositions aligned with socially just teaching. Fourth, the future of teacher education for social justice demands continued and increased *high quality research*, done by practitioners at all levels and domains of education, studying their local contexts, and by teams of researchers conducting multi-site, longitudinal, rigorous research. And finally, consistent in all we have presented in this chapter is the importance of *widespread collaboration* among multiple stakeholders from all contexts, supporting research and sharing findings across programmes so we can learn from each other as we locally shape our own contexts. Though systems of reward and ideologies of competition might tempt individualistic efforts, we must surely support each other if our profession is to reach our goals of greater social justice in schools and society.

These five themes, *political awareness*, *theoretical grounding*, *holistic coherence*, *high quality research*, and *widespread collaboration*, all work reciprocally. Political awareness informs theoretical understanding, which in turn, informs programme formation, grounds research, and warrants activism and collaboration.

Holistic programmes foster theoretical conversation, grist for meaningful research, and connection for all players. Research drawn from theory, contextualized in political realities, and focused on holistic programmes will best be done collaboratively, with results widely shared for the improvement of all. And finally, collaboration will enhance the value of all the other threads. Together we can inform our practices for improvement, we can enrich the quality of our research, and we can use our practice, our research, and our theoretical understanding to illuminate and challenge the political threats that would undermine socially just teacher education. This is not work that can be done alone; indeed, attempts to work alone often are done at our peril.

In preparing this chapter, we were struck by the constant drum beat—that we have made little progress in either the practice or research of teacher education oriented towards social justice. This accusation seems to be accurate, but the possibilities are real for improving our preparation of socially just teachers, who will be instrumental in creating a more humane, just world. And the stakes for doing so warrant no less than our best efforts.

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Chapter 29

Looking Beyond Borders: Scholarship of Teacher Education

Mary Lynn Hamilton and John Loughran

This chapter explores understandings of the scholarship of teacher education and offers challenges to researchers in teacher education who pursue educational change. As we noted earlier, when

... Pursuing scholarship of teacher education, theory and practice need to be viewed and practised as complimentary and informing. Doing so matters if teacher education is to be at the forefront of challenging a teaching as telling and learning as listening culture; and that would be an outcome that would truly warrant acclaim in terms of meaningful educational change. (Loughran & Hamilton, 2016, p. 18)

When we considered how we might cultivate change, we contemplated the importance of the particular – the particular student, the particular teacher, the particular classroom – rather than the small (Greene, 1995) view of big data and the “teaching as telling and learning as listening culture” as the way to address educational change. We decided that exploring scholarship on teaching and teacher education through an international lens might deepen how we see teaching and teacher education and open our approach to this scholarship. We wonder what we need to address in an exploration of teaching, teachers and teacher education with careful attention to the international perspective? And we wonder what we might learn when we look at the particular.

To facilitate an exploration of looking beyond borders, we begin with an examination across studies and reports that attempt to provide generalizable information from a global perspective. Then we present ideas we unraveled in our search for definitions and ideas about international teacher education – we wonder, are there ways we might better consider the work of teachers and teacher educators? Next we

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ponder potentialities in the study of the particular and whether looking locally can contribute to better understanding the global nature of teacher education. At the same time we turn to recognize the value of looking at smaller stories alongside grand narratives. Finally, we discuss possible alternatives to traditional notions of international teacher education.

Looking Across Literature from a Global Perspective

We began our exploration by reading current educational research and reports, including the chapters within the volumes of this handbook; we know that teacher education programmes, teacher educators and teachers are under almost continual critique. While the Handbook chapters provide exceptions, in other texts we found a variety of recommendations that began with ‘ought’ or ‘should’, we read about strategies and ideas already employed in teacher education programmes and current teaching practices yet proposed as if for the first time (Darling-Hammond & Bransford, 2005). Ironically, this skepticism and perceived disrespect for teachers and teacher educators co-exist internationally with an expressed need to support and educate good teachers. We also see tensions bound by culture, geography and relations. To address these critiques and apprehensions we suggest the application of a cosmopolitan (global) and more critical lens when considering the theory~practice relation in teacher education as well as the relation between the grand narratives and small stories of teaching and teacher education. Doing so may well foster needed educational change rather than a repetition of what we already know.

When we contemplate education around the world we see a relatively universal desire to provide education for many, if not all, children. However, war, poverty, culture and life experiences interface with the ways we might define ‘universal’ and ‘all’. In fact, we note that conversations centered on views of teaching and teacher education can lack clarity and focus. We also find a variety of studies that equate the term global to universal as if definitions of teaching, teachers, teacher educators and teacher education are shared. Texts (see Craig & Orland-Barak, 2014, 2015a, 2015b; Darling-Hammond & Lieberman, 2012, for example) do exist that explore international research and pedagogy in teaching and teacher education; unfortunately many texts do not attend to definitional and conceptual differences within and among countries.

One study we found (Hamilton & Pinnegar, 2014) looked across prominent international journal publications and educational research landscapes to mark similarities, differences, absences and presence in research conversations. The authors attended to the research contexts along with the study content and the literatures to support the finding. Moreover, they noted that definitions and findings portrayed as universal seemed to vary from country to country. Although researchers describe the preparation of students for the teaching profession as a central purpose of teacher education, the context of shared understandings matters in the interpretation of findings. What is true about teacher education in China may not be true in Belgium, may be true in the Australia and so on.

To explore teaching and teacher education with a twenty-first century sensibility teacher educators could take up a cosmopolitan view of this world that encourages a critical examination of where boundaries and relations are privileged across the world in both action and word. To do that we started with organizations like UNESCO and OECD who publish detailed reports (for example, OECD, 2010a, 2010b, 2015; UNESCO, 2004, 2005, 2008, 2014) along with journal articles and book chapters focused on comparative studies of teaching and teacher education (e.g., Afdal & Nerland, 2014; Alexander, 2000; Blomberg & Knight, 2015; Bray & Qin, 2001; Chistolini, 2010; Czerniawski, 2009; Evagorou, Dillon, Viiri, & Albe, 2015; Ingersoll, 2007; McDonald, 2007; Takala, Wickman, Uusitalo-Malmivaara, & Lundstöm, 2015) as well as studies that probed the specific relations of teaching and teacher education in specific countries (Chandra, 2015; Deng, Chai, Tsai, & Lee, 2014; Sawhney, 2015). Internationally we found considerable work written about who prepares teachers and how they are prepared. There have been studies that focus generally on teachers (for example, Baig, 2012; Butt, 2008; Dengerink, Lunenberg, & Kools, 2015; Lefoka, Slabbert, & Clarke, 2014; Martinez, 2008; Stanat & Christensen, 2006; Stoel & Thant, 2002; Wang, Coleman, Coley, & Phelps, 2003) and studies that focus more specifically on content areas (for example, Akiba, LeTendre, & Scribner, 2007; Niess, 2005; Stigler & Hiebert, 1999; Van Es & Sherin, 2008; Vratulis, 2008).

From the various reports we found general information that allowed us an opportunity to contrast and generalize similarities/distinctions among countries including information on classrooms, safety, income, and life experiences as well as the literature used to support evidence and findings. We wonder about the usefulness of making assumptions regarding similarities or differences to represent understandings of contexts of schooling and education around our world. We wonder how constrained and blinded by our own biases and contexts of action and interaction we are and how capable we are of understanding the experience of teachers and teacher educators in other countries.

Although within the past few years more works have been published on teacher educators with a recognition of international variations (like Ben-Peretz, Kleeman, Reichenberg, & Shimoni, 2013; Davey, 2013; Hsieh et al., 2011; Hökkä, Eteläpelto, & Rasku-Puttonen, 2012; Murray, 2014), we find that research often either privileges North American authors or assumes that there is, or can be, a universal approach to teacher education. Gingras and Moshab-Natanson (2010) noted this imbalance and found that international authors more often cite authors from outside North America and attend to whether authors are/are not dependent upon Western (European or North American) sources. We wonder about the effect upon the knowledge base of teachers and teacher educators and whether by preparing teacher educators to prepare teachers based on research (mostly) from a single nation, we provide the best for teachers preparing to teach in the twenty-first century?

Recognizing the powerful role of teachers in the lives of students (EC, 2015, p. 3), the European Commission (2015) explored the teaching profession in Europe. Basing their work on the Teaching and Learning International Survey (OECD, 2014), they used quantitative and qualitative information to identify information critical to policy makers. Their findings included information on teachers' routes to

teaching and noted that “there is a need to ensure high quality teaching, to provide adequate initial teacher education, continuous professional development for teachers and trainers, and to make teaching an attractive career-choice” (p. 15).

In another work focused on strengthening teaching, Eurydice/European Commission (2015) identified findings that included a confirmation of known trends across Europe toward increasing the amount of practical training, including school-based practice (p. 2). Based on the TIMSS/PIRLS performance assessment, this report found that collaboration between teachers varies widely across the countries covered and that collaboration between teachers increases job satisfaction. Additionally they found that programmes of Initial Teacher Education (ITE) should be a mix of subject knowledge, pedagogical education and teaching practice and integrate partnerships. Another report – *Education for change, Change for education* (Besson, Huber, Mompoin-Gaillard, & Rohmann, 2014) – echoed these findings.

On the continents of Africa and Asia similar questions are consistently being asked. In Africa researchers have noted that teachers have different sorts of problems to address but that the topics are similar including – preparation and support. Mungai (2015) noted that low salaries affect teachers’ work schedule as do job locations as do service and equipment availability. Another study (Khisa, 2015) identified obstacles preventing the greater use of ICT in education and training institutions, ranging from the cost of services and equipment to poor infrastructure. Coinciding with these studies, Asian teacher educators from China, India, Singapore, Sri Lanka, and the Maldives (Gupta, 2014) examined education policies and made fundamental changes with attention to the creation of new benchmarks regarding knowledge, skills, and attitudes. These researchers wanted to insure that the next generation in any country would be familiar with these benchmarks for success. It is not difficult to see that from reading the last few paragraphs how easily we can generalize and make assumptions about countries as if they were all the same. It seems evident that unless we engage in critical exploration, we could be lulled into thinking that we are all part of a global culture and ignore particular stories.

Searching for Definitions and Ideas About International Teacher Education

Importantly, we recognize that the term – teacher educator – has different descriptions from context to context, yet the use of categories to explore ideas within contexts helps us look across the differences in an attempt to understand our world (Lunenberg & Hamilton, 2008). As we do, similarities emerge, among content areas, political positioning, and some characteristics of the teachers and/or teacher educators. In turn, we consider the ease with which we could universalize understandings and overlook differences. For example, in elementary programmes where we have a stronger sense of the developmental process for children and what adults

need to do in relation to those children, it seems easy to generalize. However, as those students progress in their schooling and develop into adolescents, comparisons can become more difficult. We recognize the fundamental nature of context. How does that fit globally?

More than 20 years ago Robertson (1992) drew attention to globalization and, “the intensification of consciousness of the world as a whole” (p. 8). As he elaborated on his view he addressed the individual and collective relations that expand our view of cultures. In doing so he encouraged the embrace of various ideas and symbols along with the affirmation rather than denial of the world’s complexities and diversities. More recently Boli and Lechner (2009) echo this sentiment when they point to the potential impossibility of providing a “conceptual analysis of the term globalization” (p. 321) because of the breadth of definitions and interpretations. Scholte (2005) similarly noted that no pure globality exists and globalization, “substantially rather than wholly transcends territorial space” (p. 77).

When defining globalization, Boli and Thomas (1999a) and Lechner and Boli (2014) recognized a universal aspect of culture and organization maintained among countries and described humans as innovators who restrict and adapt according to circumstances. They also suggested that humans conceptualize the world as a unitary system, with one arena for action and discourse. Moreover, they pointed out that with increasingly integrated networks of exchange, competition, and cooperation, actors perceive this to be a natural progression. They see that:

... culture lies at the heart of world development ... cultural conceptions do more than orient action; they also constitute actors. People draw on worldwide cultural principles that define actors as individuals having inherent needs, emotions and capacities and they act in accordance with such principles. Worldwide constructs provide social identities, roles, and subjective selves by which individuals rationally organize to pursue their interests. (1999b, p. 17)

Viewing Internationally: Thinking Globally, Thinking Locally

Scholars offer a multitude of definitions for globalization. As our point here is to promote ways to support educational change and not provide an extensive examination of globalization, we selected the works of Spring (2008), and Anderson-Levitt (2003a, 2003b) for exploration. In their writings they detailed four (of many) theoretical approaches to explore globalization. In our discussion we address two approaches – *World Culture* and *Local Variability*.

Proponents of the *World Culture* approach describe global cultures as merging into a single cultural entity. When considering education and other institutions countries tend to look to a world culture (Spring, 2008). Moreover, they pointed out that modern public education spreads from a common source and that over time schools become more and more similar (Anderson-Levitt, 2008). While the *World Culture* approach,

... is a grand sociological theory about modern nation-states ... [its] theorists argue that a single global model of schooling has spread around the world as part of the diffusion of a more general cultural model of the modern nation-state ... (Anderson-Levitt 2003a, p. 2)

Boli and Thomas (1999b) found that, “culture is global because it is held to be applicable everywhere in the world” (p. 18) and that “humans everywhere are seen as having similar needs and desires” (p. 35). Later works (Lechner & Boli, 2014, for example) refine and develop these assertions. Akiba et al. (2007) indicated that countries have instituted higher standards and strengthened teacher certification processes out of shared understandings regarding the recognition (and critique) of course curriculum concepts and instructional strategies suggesting shared understandings. World Culture theorists look at the TIMSS data along with data on student learning and identify a sense of global (universal) cultural dynamics (OECD, 2004, 2005; UNESCO, 2006, 2013). They contend, in an echo of the work of Wang et al. (2003), that similarities of structure and content in teacher education programmes exist around the world. Providing further support for this assumption, Baker and LeTendre (2005) and Spring (2008, 2015) suggest in separate publications that a standardized world curriculum with related measures for assessment may occur in the near future. These researchers argue convincingly for a global curricular convergence, using the West as a model.

Some authors (like Stigler, Gallimore, & Hiebert, 2000; Stigler, Gonzales, Kawanaka, Knoll, & Serrano, 1999) engage the TIMSS research to support this theoretical approach (Baker & LeTendre, 2005, for example). Although these theorists acknowledge the social construction of culture as a foundation, they also recognize a convergence of ideas. Thus, they advocate the embrace of ideas and symbols from other cultures that further their own cultures in ways that resonate with Robertson’s work. As the global culture emerges, convergence occurs in a world culture approach.

The *Local Variability* approach emphasizes cultural variation and encourages learning from educational ideas found among global contexts. These scholars reject the idea of a World Culture – where national elites select the best model for schooling in a one-world educational culture that over time increases similarity among nations and cultures. These scholars also question the imposition of schooling models on local cultures (Anderson-Levitt, 2003a, 2008; Spring, 2008, 2015). In addition, they assert that localities and nations may borrow from multiple models without turning toward a universal culture. Moreover, they stress the existence of different knowledges and multiplicities for seeing and knowing the world (Spring, 2008, 2015) and attempt to avoid suppression of ideas (Anderson-Levitt, 2002).

If we consider the ideas of both World Culture and Local Variability theorists, we see tensions between diminishing and expanding value for context and ideas in our world. Anderson-Levitt (2008) points out that World Culture theorists,

... claim that nations freely adopt common ideas not because the ideas are truly better, but simply because leaders perceive them as modern and better. [This approach] emphasizes the social construction of reality rather than material cultures [and] downplays power relations. (p. 350)

Still, she (Anderson-Levitt, 2002) warns researchers to be wary of common vocabulary for curriculum and pedagogy, since terms have different definitions in different places and involve seeing people and places in the midst of their lives. Local Variability theorists,

emphasize national variation, not to mention variation from district to district and from classroom to classroom. From their point of view, the nearly 200 national school systems in the world today represent some 200 different and diverging cultures of schooling. (Anderson-Levitt, 2003a, p. 1)

Potentialities of the Particular; Values of Smaller Stories Alongside Grand Narratives

The work of Hökkä and Eteläpelto (2014) reinforces the significance of a local focus and points out the importance of attending to both individual and collective agency to enhance the change process. In turn, Anderson-Levitt and colleagues (2003b) challenge World Culture theorists to recognize that terms and processes differ and similar terms do not always translate to similar practices. With this approach, policy is much less homogenous than World Culture theory might imply with teachers and other local individuals sometimes resisting, always transforming the official models they are given. Looking locally we might see something we might miss with a global focus (Anderson-Levitt, 2003a). Yet, we know that ideas about education do cross cultures and a ‘global view’ indicates models of dominance and power that affects local educators.

Anderson-Levitt (2008) purports that while countries may appear to have converging curricula with comparable dialogues regarding curricular reform, their understandings of theorists related to these reforms may vary radically. Consequently everyday classroom activities may appear as different as the resource disparities (Alexander, 2000). Additionally, even though patterns exist across countries as evidenced in the TIMSS studies, patterns within localities generate different levels of impact. Stigler and Hiebert (1999) recommend that an expansive view of cultures facilitates dispelling the biases that might inhibit understandings. They note that they are, “not talking about a gap in teachers’ competence but about a gap in teaching methods. These cross-cultural differences in methods are instructive because they allow us to see ourselves in new ways” (p. x). They also contrast approaches to content as procedural in the United States and conceptual in Japan and wonder about what might be learned from these and other approaches to improve mathematics instruction. We can see that as a cultural activity teaching rests on tacit beliefs and has international variation.

The research literature that informs teacher education appears to be dominated by ideas from American researchers. From our reading it seems that the language and concepts and ideas about teaching and teacher education that are taken up by other countries and cultures and appear in the discourse of teacher education within those other countries and cultures have American influence. Of course, meanings

vary and shift and become part of the discourse about teacher education within a particular culture. We also assert that other international communities produce relevant and interesting research that can be equally applicable to the educational context within/without the United States. Unfortunately, American researchers do not routinely take up the concepts and ideas that emerge from elsewhere and therefore international ideas and findings do not become part of the teaching and teacher education discourse within the United States.

Indeed, accountability and reform movements so visible currently in teaching and teacher education within the United States' context may be informed by research from other countries (e.g., Day, 2010), but the way in which those ideas are taken up are specific to the American context. This becomes even more evident where there are language differences. Language translation in addition to cultural understandings and contextual differences can impact how research from other countries enters the discourse in the United States and how ideas from the United States enter and influence the international teacher education research community.

Looking at Teacher Preparation Around the World

As we read through publications to help us think about teachers and teacher education internationally, we found general information that allowed us to compare and often generalize about similarities among countries. We recognize that categories might allow readers to look across the breadth of literature as we attempt to understand our teaching and teacher education world. As we do, similarities emerge among content areas, political positioning, and some characteristics of the teachers and/or teacher educators. In turn, we ponder the effortlessness involved to universalize understandings and submerge differences. For example, we can easily generalize about teaching elementary children where we have a stronger sense of the developmental process and how teachers 'need to act'. However, as students age and develop, the reasons for education shift and comparisons become more difficult. Although generalization or universalization may seem easy, we must remember that context matters and recognize the particular and local with deeper understanding.

While questions about the teachers and teacher educators are important, they fall beyond the constraints of this chapter. Consequently we return to ponder – which work will inform the knowledge base used to prepare the teacher educators who prepare the teachers. Issues of citation and publication seem critical to examine. For example, in a recent special issue on globalization in a prominent journal, points we make here emerged along with questions. Although a thought-provoking issue, American authors and citations dominated the issue with only 50 % of the authors from the international community.

Indeed one of the themes of concern in research across the globe is attention to teacher recruitment and retention (UNESCO, 2006; see also Richardson & Watt, 2016) and the need to attend to the quality of teacher education and teacher educators. Most countries decry the drain of teaching talent from teaching – in the U.S.

over 25 % of the teachers hired leave teaching in the first 5 years (Ravitch, 2010; UNESCO, 2006, 2010 for more information). Yet, the public's focus is not on how we can provide the kind of support economically, emotionally and intellectually that would enable teachers to remain in the chosen profession and teacher education to empower them. Instead, the focus is on creating a pressure vice of criticism and testing.

We see teacher education as an international concern with complexities across countries and continents. It is also context bound. While across countries the fundamental task is the same (to prepare teachers in knowledge of, and skills for, teaching and to orient them to take up the needed dispositions to be strong teachers), what is needed within individual contexts, the requirements for citizenry in different countries, and the cultural practices of teaching will always be particular.

A recent edited volume edited by Craig and Orland-Barak (2014) has engaged educators from across the world (including Canada, Chile, China, Estonia, Iceland, Iran, Israel, Japan, Korea, New Zealand, Portugal, United Arab Emirates, and United Kingdom) to identify what they consider the most promising pedagogies of teacher education within their institutional context. Each chapter in the book indicates not just the range of promising pedagogies but the similarities and differences related to contextual responses in the creation of the pedagogy. What becomes clear is that while practices may have similarities with labels like teacher research, reflection, and mentoring (for example), the instantiation of these practices is shaped by the context, setting and politics of countries and communities in which the pedagogy is developed and implemented. We argue here that contextual differences provide the research community with ways to see nuances as well as stark differences and imagine how programmes and practices might be organized differently.

Hoban (2005) edited a volume from the perspective of examining teacher education utilizing a systems approach. In the series of chapters each taken up from a different standpoint within the whole, Hoban's volume makes visible the complex interactions and interdependencies involved in educating a teacher. What makes the volume of further interest is that authors who represent not only different institutional contexts but also perspectives from different countries write chapters. The different participants and aspects of the system and the different potential standpoints within it explored by the chapters makes visible the complex interaction and relationships of systems in the preparation of teachers. When reformers speak of teacher education they are usually targeting only one programme or one aspect of the whole and lay the blame for perceived failure on colleges of education or departments of teacher education. Without attention to the nuances and complexities of teacher preparation as an enterprise, it is easy to present simple, straightforward one-dimensional answers (see Ball & Forzani, 2009; Bullough, 2014).

While we hope for something different, teachers, teacher educators and others seem locked in a conundrum of education as if it will never change (St. Pierre, 2004). We can look to see, "what it means to talk of institutions breaking down: the widespread progressive introduction of a new system of domination" (p. 182) and resonate with the talk about the choke hold that governmental bodies have on the

standards for and funding of educational research (St. Pierre, 2013). But how can we release our imaginations and ourselves?

We believe we offer a counterpoint to the grand narrative that many educational researchers hold dear. It is our intention to disrupt perceptions of culture, self and ways to contemplate education and educational practice. More important than recognizing that teacher education may mean different undertakings in different areas of the world is the acknowledgment that sometimes we limit ourselves with tacit acceptance rather than exploring infinite possibilities.

Alternatives to Traditional Notions of International Teacher Education

In a study of the authors and citations in the social sciences (including education) Gingras and Mosbha-Natanson (2010) found that journals favored Europe and North America with Europe comparable in work produced. These authors noted that the “autonomy of the other regions has diminished and their dependence on central actors has increased” (p. 153).

Echoing this work, Gupta (2014, p. 2) describes the global north and the global south (shifting the East/West view) and warns against ‘Westernness’. When privileging westernness, academic gatekeepers take up the dominant rules of epistemologies of Western knowledge production and render other views less powerful. She notes that the dominant discourse on child development suggests that all children develop in a universal, linear pattern to achieve maturity. Moreover, she (Gupta, 2015) reminds us to look beyond western notions that promote the adoption of core ideas from the dominant, mostly ‘Western’ discourse about education. She urges the development of a teacher education curriculum developed within a postcolonial framework to prepare teachers in the pedagogy of third space.

An inquiry into teacher education (McDonald, 2007) investigated teacher preparation and induction in Australia and offered recommendations similar to those recommendations from other continents already addressed with calls for a year-long induction programme, professional development for new teachers and mentors for support. In a survey of eight countries Stoel and Thant (2002) found that these countries offer comparable educational contexts to those found in the US. They encourage policy makers and teachers globally to examine how critical issues in teachers’ lives are handled elsewhere. In a complementary study Wang et al. (2003) found that although the number of requirements for teachers varied across the eight countries they examined, the structure and content of undergraduate teacher education programmes were similar across the countries, including courses in content and pedagogy and field experience to observe and teach students. Similarly, Osborn et al. (2003) found that the preparation for teachers in several European countries were similar in “length, structure, context” (p. 74) and depth of preparation.

We wonder how considering teaching and teacher education from a global perspective can release the imagination as we work to improve the experiences of children and youth in school through the education of their teachers (Greene, 1995). From our reading we observe that regardless of country of origin, authors most frequently cite American authors. Looking across the literature of teaching and teacher education we realize that we must take seriously the approaches to globalization that allow us to generalize with big data yet particularize with local stories the breadth of work available because used alone we may miss or trivialize crucial insights. We also see that it is not enough to cite the work or works of scholars from other countries. Rather, we must come to see and understand how those ideas fit within the local context and, in turn, how it can inform the global community.

Looking beyond our current understandings of the terrain to consider whether or not we can simply draw our notions of teacher education from one literature raises questions: “must we focus on the research discourse in an individual nation?”; “Can we base our own research in the United States on the works of those scholars in Belgium?” “Is it theoretically legitimate for scholars in Turkey or Norway or elsewhere to ground their studies in the works of American scholars?”; and, “Can American researchers build on research from the United States and then uncritically take up findings from research based in American studies but conducted in Iceland or Chile?”

We think that many times the meaning of concepts and research findings presented as universal for teaching and teacher education actually varies from country to country. The central purpose of teacher education may focus on the preparation of students for the profession of teaching. Yet, context of shared understanding may matter. What is true in Brazil about teacher education may not be true in The Netherlands, may not be true in the United States and so on.

Conclusion: Looking Beyond Borders

To encourage scholars to look beyond their borders, Anderson-Levitt (2014a) noted the ways publications privilege attention to North American authors. In particular she noted the ways that the significance of research can be interpreted when she points to the variability of context from country to country and its affect on judging significance. Additionally she points out that we can misjudge research significance because we lack familiarity with contexts that privilege certain programmes or because lack of language or national context sabotages our understanding of researcher questions (Anderson-Levitt, 2014a). Acknowledging the social importance and intellectual contribution of non-North American authors can broaden our understandings of relevant, critical issues in teaching and teacher education. In another work (2014b) Anderson-Levitt continues to promote attention to international research and offers suggestions that will, potentially, bring more international work into North American journals and help us think differently about what is important.

She notes that national, “differences in what counts as ‘important’ research mean that reviewers are more likely to question the value of a study on a topic or location” central to their own part of the world (Anderson-Levitt, 2014b, p. 349). Calling upon the work of Lillis and Curry (2010), Anderson-Levitt recommends that researchers avoid calling work ‘international’ when the study focuses on issues local to only one country.

When we consider both Local Variability and World Culture theories, we recognize that individually each perspective overlooks crucial points (Anderson-Levitt, 2012). Further we note the existence of promising research around the world that informs researchers with intriguing results about teaching and teacher education from Belgium, Canada, Cyprus, and England, along with notable findings in works from China, Israel, New Zealand, Scandinavia, and Spain. While North American research reaches scholars in other countries, a reciprocal action is far less notable. We recognize possible universal aspects of education and acknowledge that shared language and understandings may not exist. We see questions about rigorous research if we state a country or researcher by name (like, Ghana or Avalos) as a way to establish context for work in teaching and teacher education in the twenty-first century. Scholars must understand potential universals and particulars to understand how ideas inform work within their own country along with the works and worlds of others (Lugones, 1987/2015).

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