THE QUESTION OF EVIDENCE IN RESEARCH IN TEACHER EDUCATION IN THE CONTEXT OF TEACHER EDUCATION PROGRAM REVIEW IN CANADA

Volume 1

Edited by

Thomas Falkenberg and Hans Smits

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2 Volumes

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ACKNOWLEDGEMENTS

Foremost, we like to acknowledge our colleagues who were involved in this writing and working project that we have proposed in the spring of 2010 and who came to Winnipeg in November of the same year from across the country for face-to-face working sessions to engage with their colleagues' ideas about the question of evidence in research in teacher education in the context of teacher education program review. This is the second such writing and working project we have organized over the last two years, and we are, again, very delighted about the number in which our colleagues responded to this second project and the enthusiasm with which they participated.

Picture from the last day of the Fourth Working Conference on Research in Teacher Education in Canada
Winnipeg, 20 November 2010 (missing from the picture are Ron MacDonald,
Janet Ferguson, Kevin O'Connor, and Karen Goodnough)

The Fourth Working Conference on Research in Teacher Education, held 18-20 November 2010 at the University of Manitoba (see www.umanitoba.ca/education/ TEResearch), provided the context for the face-to-face working sessions in which participants

Chapter 1

Introduction:
Evidence as a Research Problem in
Teacher Education Research

Thomas Falkenberg & Hans Smits

In the spring of 2010 we sent out a call to Canadian teacher education scholars to submit draft papers for a book project on "The Question of Evidence in Research in Teacher Education in the Context of Teacher Education Program Review in Canada". The call asked our colleagues to respond in their draft papers to one or more of the following questions that would frame the topic of the planned book:

- What counts as evidence in educational and related social science research?
- What can and should count as evidence in research and legitimate knowledge particularly in the diverse areas of teacher education?
- What research evidence is actually used in teacher education program review processes at Canadian universities, and what decisions and processes guide the use of research?
- What are the issues and challenges of relating research to policy and program decisions?

With this book our intention is to provide Canadian teacher education practitioners, scholars, and those interested in improving teacher education with a compendium representing necessary conversations among Canadian scholars about the nature of research and scholarship about practices, programs and purposes of teacher education. The book is particularly concerned with the complex questions about the relationships between research, program review and development, and how we ought to understand evidence and its role in assessment of and judgements about teacher education programs.

As it was the case with last year's book project (see Falkenberg & Smits, 2010), the project that resulted in this present book involved a working conference with face-to-face meetings of the authors of the draft papers. The working conference provided for both an opportunity to engage with colleagues' ideas on and thinking around the topic of the book project and an opportunity to engage in smaller groups with each others' draft papers, which were circulated to all participants prior to the working conference (see www.umanitoba.ca/education/TEResearch/Conference%202010.html). Following the work-

ing conference authors developed the draft papers into fully developed papers that then underwent a blind peer-review process. The final papers resulting from this process make up the other 17 chapters of this book.

We have arranged the 17 chapters in alphabetical order by the last name of the first author of a chapter to do justice to the often overlapping issues addressed within the same chapter and across chapters. The abstracts at the beginning of each chapter should give the reader a sufficient overview over what she can expect of the respective chapter. In this introductory chapter we will discuss the issue of evidence as a research problem for teacher education research with the intention of introducing the reader of this book to some of the core issues around the book's topic – at least as we have identified them. In our introduction we will also make ample reference to chapters in this book to identify for the reader chapters in which the respective issue is illustrated or further discussed. Considering the extensity of the topic of the book, our discussion of some of the issues linked to the topic can neither be extensive nor intensive, however, we hope that this chapter will provide the reader with a framework of ideas that allow her to see to what aspect(s) of the topic each of the chapters in this book contribute. In this chapter "teacher education" is always referring to pre-service teacher education.

Teacher Education Research: Soft and Applied

Labaree (2004), drawing on Becher's (1989) work, characterizes educational research and its findings in two ways. First, educational research is a "soft" science and has the following characteristics (in opposition to the "hard" sciences like physics; Labaree, 2004, pp. 63-65):

- the area of inquiry is considerably less clearly defined;
- it is more difficult to produce findings that are reproducible;
- supporting causal claims is particularly difficult;
- there is a far less solid and generally accepted foundation upon which further research can build.

Labaree (p. 64) suggests that two particularities in the field of educational studies especially contribute to these characteristics of the research within the field: (1) educational research deals generally with some aspects of human behaviour, intentions, interests, motivation, and so on; (2) normative issues and issues of purpose are involved not just through the subjectivity and agency of the researchers but also and particularly of those who are studied in educational research.

Second, educational research is an "applied" science (in opposition to the "pure" sciences), the features of which Labaree (2004) characterizes as follows:

- the research focus is on "practical issues arising from specific contexts" (p. 56);
- research success is measured in terms of "whether or not a particular approach works in a particular setting better than alternatives that are available at the time in question" (p. 66).

These general characteristics of teacher education research have some consequences for the findings that we can expect from the research and the evidence that we can claim supports those findings (Labaree, 2004, pp. 66-67):

- findings are by nature not causal and generalizable, but rather tentative and contextual;
- the foundations of the discipline are constantly rebuilt, leading to a multitude of research approaches and views of what counts as evidence for what.

Teacher education research, as a form of educational research, shares all those characteristics, and seeing teacher education research in this light helps us understand what we can and should expect of findings from teacher education research and the evidence that supports those findings. Following, we like to make the case for some of those characteristics as characteristics of teacher education research.

As a specific area of inquiry teacher education research is, arguably, less clearly defined than areas of educational research that are more definable in and bounded by disciplinary terms. Traditionally, teacher education programs have consisted of departments and courses based on particular disciplines such as psychology, history, sociology, philosophy, and so on. Each of those disciplines has epistemological and historically bounded frames of study, which establish paradigmatic frameworks for inquiry and determine what constitutes evidence and truth. As Taylor (1995) suggests, such paradigmatic ways of thinking are foundational to epistemology and to what counts as knowledge: "Epistemology would ultimately make clear just what made knowledge claims valid, and what ultimate degree of validity they could lay claim to" (p. 2). For example, educational psychologists work, generally, within a paradigmatic frame with which psychology in general identifies, although the focus is on educational or pedagogic phenomena. Likewise, those scholars who study history of education or the sociology of education are bound in their inquiries by the dominant paradigms of those scholarly pursuits. It would take a further and more elaborate discussion to analyze how such paradigmatic approaches to research have impacted practices of research in teacher education faculties, but as some scholars have noted, research that has sought legitimacy in terms of paradigms of specifically-defined disciplines have made problematic interpretation and understanding of "(professional) practice", which is the domain, in professional terms, of those whose dominant interests and responsibilities are that of educating and preparing teachers (Condliffe Lagemann, 2000; Dunne, 1993; Labaree, 2004). To note the kind of paradigmatic issues that complicate research in education is not to question the legitimacy of certain paradigmatic approaches, but it is to ask, then, what legitimizes research into the specific practices of teacher education, and the concern about how we might best understand – and justify – programmatic approaches and reform of practices. A major contribution of the papers in this book is the recognition of the complexity of research into teacher education, and that it is difficult if not impossible to argue for singular approaches to research in teacher education. The discussions provided in the chapters complicate the nature of research in teacher education for several reasons. Because teacher education prepares teachers for entering into a profession that is contextually, historically and politically bound and influenced, research into it is an enterprise fraught with difficulties and challenges, as the contributors to the following chapters illustrate.

The sheer diversity and complexity of the enterprise we call "teacher education" creates a number of challenges. Teacher education prepares teachers for entering into a profession, and in principle all aspects of that profession are potentially of interest to the preparation of teachers and, thus, teacher education research. However, how far the reach should reasonably go is most likely controversial among teacher educators, who are generally the teacher education researchers. For instance, for some researchers, issues of social justice and empowerment are central issues for teaching and, thus, teacher education scholarship (e.g., Kincheloe, 2003), while for others those aspects are not in focus when they consider the professional knowledge for classroom practice of expert teachers (e.g., Loughran, 2010).

As the chapters that follow illustrate, questions of program development are increasingly challenged with questions of culture, social issues and indeed purposes germane to a changing world: a partial list would include issues of social justice, understanding the other, the challenges of particular contexts, changing technologies, and the impact of globalization and shifting economies. For many teacher educators, those areas of concern have become legitimate foci of research. Yet at the same time, a challenge for research in teacher education is how such understanding of larger contextual forces can be applied to the preparation of teachers and the nurturing of good practices. Such tensions between contexts, and how one applies understandings of what is required for teachers as they enter the profession is one of the key tensions evident in the ensuing discussions. It has become a rather common trope, not only in teacher education, but in other professions as well, that we need more research in order to improve practice. Evidence-based practice has as an underlying assumption that research findings can be applied objectively in designing and implementing approaches to professional preparation.

What we offer in this book is not a questioning of the necessity for research, but as a whole, the various discussions in the chapters do question a simple linear and causal construal of a research-into-practice model. The question that hovers over all the discussions is what constitutes the role of research, and to what extent research can function as warrant for making decisions about programs and practices. It is the idea that there is unassaible evidence which can determine practice that is under question, It is to say rather, as the Italian philosopher Vattimo (2011) writes, citing Heidegger, that "science doesn't think" (p. xxx). Vattimo argues that we cannot simply ascribe the truth of our practices to science or the application of science without appealing to what he terms "the paradigmatic horizon within which every correspondence is verifiable" (p. xxxiii). In asserting that science does not think, Vattimo echoes Gadamer's (1989) defense of practice in terms of phronesis, which means that we cannot simply take theory (or "research") as the truth of things without a careful attunement to the very contexts that demand careful attention and understanding. Justifying his title, "a farewell to truth", Vattimo explains, "leave is taken of truth as the objective mirroring of a datum that, to be adequately described, must be fixed and stable" (p. xxxii).

Teacher education research does not generate reproducible findings – thus, the findings are not generalizable – because the findings are always tentative and contextual, since the context in which we and our graduates teach are not at all "fixed and stable". There are at least the following three challenges to generating reproducible / generalizable findings in teacher education research. First, teacher education research is undertaken in specific contexts involving specific program designs and socio-cultural conditions and humans with specific life-histories, intentions, aspirations, skills, attitudes, capacities, and so on. Teacher education research (as an applied science) is not undertaken in laboratories under controlled conditions –

because findings from such research contexts would be very limited in value to programs that exist within their specific contexts. Let us consider the findings of teacher education research on difficulties in changing beliefs in teacher candidates discussed in Richardson and Placier (2001, pp. 915-916) – an aspect of learning to teach that is crucial to the education of teachers. The studies the authors discuss all inquire into teacher candidates' learning after they were exposed to quite different learning experiences, and they all use quite different tools and, thus, data to assess if and to what degree a change in beliefs has occurred. Some of the studies suggest the possibilities of changing teacher candidates' beliefs (relative to their respective learning experiences and the assessment tools used) and others did not find (substantial) change in beliefs. Teacher education research – as Labaree has characterized soft sciences – deals with human behaviour, intentions, motivation, as well as the central value question of what teacher education should teacher candidates prepare for. If one asks a generalized question like "Can teacher candidates' beliefs be changed through teacher education programs?" one should not be surprised to get contradictory findings and to see a variety of learning experiences and assessment tools used, which leads us to the second challenge.

Second, teacher education research – as Labaree has characterized applied sciences – is generally undertaken to find out "what works" in the preparation of teachers relative to the context at hand and what one considers the goals of teacher education to be. For that reason we should not be surprised – to take up the example of the studies in Richardson and Placier (2001) again – to see the use of different learning and teaching interventions and assessment tools in the different studies, because those studies are undertaken to be able to respond to different contexts, including different ideas about what beliefs should be changed in teacher candidates. For instance, Korthagen's (1988) study, which is discussed in Richardson and Placier (2001, p. 915) inquired into the possibility of developing reflective capacities in "[teacher candidates] in his reflective teacher education program" (p. 915; see Korthagen, 2001). His finding that "[teacher candidates] who come into the program without reflective orientations do not gain very much from teacher education courses that emphasize reflection" (Richardson & Placier, 2001, p. 915) is *directly* only relevant to his own teacher education program.[1] A number of chapters in this book illustrate that teacher education research generally is not just done within specific contexts (first challenge), but that the research is also done for a particular purpose, namely to find out "what works (better)" in those particular contexts. For instance, Bullock and Russell (chapter 3) and Thomas (chapter 18) argue that and illustrate how self-study of teacher education practices can be used to inquire into "what works" of a teacher educator's pedagogy and into one's assumptions about teaching that sometimes are in the way of enacting "what works". Poth (chapter 14) and Mueller, Willard-Holt, and Buzza (chapter 12), for instance, use each a particular model for program assessment in order to identify "what works" and what does not (relative to identified goals) within a particular set of courses or a particular program as a whole, respectively.

So far, the argument presented has drawn on what is (currently) actually done in teacher education research, characterizing a particular cultural practice of research in teacher education. But identifying these features of the cultural practice of teacher education research does not mean that teacher education research cannot *in principle* generate reproducible / generalizable findings. Now we want to make the case that that is not possible *in principle*. One reason is that

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[1] Further below we will discuss in what ways general findings like the one coming out of Korthagen's (1988) study can be useful in other contexts.

in teacher education research human qualities are involved in a central way, which makes the patterns and regularities needed to get reproducible / generalizable findings – assuming that there are such patterns and regularities in the first place – far too complex to capture in a way that would allow meaningful general principles. For instance, in educational psychology generalized principles of constructivism *as a theory of learning* are well supported by research findings. However, moving from educational psychology into the practice of teaching, which is a central domain of teacher education, there are less generalizable principles for teaching in accordance with constructivist principles.[2] The second reason lies in the fact that teacher education research, as teacher education itself, is saturated with normative questions and decisions: "As a field, we suffer from enduring disagreement about what counts as a valid outcome [of teacher education] and about how to measure those outcomes that do count" (Kennedy, 1996, p. 121). Disagreements at such a fundamental level do not allow for generalizable findings of the type that can be found in the natural sciences.[3] A number of chapters that describe actual program review processes illustrate the saturation of teacher education with value questions and decisions that impact the consideration of research findings (see, for instance, Goodnough, chapter 7; Hirschkorn & Kristmanson, chapter 8; Riches & Benson, chapter 16).

As Labaree (2004) has noted, research in education has traditionally relied on a model of science based on the natural sciences for its seeking of legitimacy. Gadamer (1989) has emphasized that when we talk about practice, "we have been forced [by what he calls the "modern notion of science"] in the direction of thinking about the application of science" (p. 69) as the model of our own practices as researchers and teacher education practitioners. The question, then, arises how one can understand what seems to be "generalities" in teacher education research like those about general qualities of powerful teacher education programs drawn from studying powerful teacher education programs (see, for instance, Darling-Hammond, 2006a). They cannot be understood as generalities in the same way as generalities can be understood in the "hard" sciences. In the natural science model, evidence is indeed intended as being generalizable across contexts, and in that way also serves predictive functions. But as Flyvbjerg (2001) suggests, in the social or human sciences a different rationality is at work, one that requires the exercise of certain kinds of intellectual "virtues" which cannot be contained only in dispassionate application of evidence to particular contexts. A first issue, then, is that a "powerful teacher education program research" is full of value judgments in the sense just discussed: The decision on which US teacher education programs were to be studied as powerful programs by Darling-Hammond and her collaborators was based on "extensive review of evidence, including a nationwide reputational survey of researchers, expert practitioners, and scholars of teacher education; interviews with local employers about whom they prefer to hire and why; and outcomes from prior surveys of program graduates" (Darling-Hammond, 2006a, p. 16). The second issue is that although Darling-Hammond (2006a, p. 41) provides a list of "common components of powerful teacher

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[2] See, for instance, Tobias and Duffy (2009) for a more recent documentation of the controversy about the idea of "constructivist instruction".

[3] This statement should not be understood as prejudging a case for viewing the natural sciences as a human endeavour full of value judgments as well. The statement, though, does claim that teacher education research is *comparatively* far less suitable for generalizable findings than the natural sciences are.

education", how those features materialize in the specific teacher education programs varied quite a bit (p. 17); in other words, if there are generalities identified (at least in this line of research), those generalities are not directly "translatable" into any arbitrary teacher education context as would be expected from findings that could be considered generalizable.

How, then, can and should generalities, like the general qualities of powerful teacher education presented by Darling-Hammond (2006a) be understood despite, or maybe more because of, all those qualifications? One general quality of the powerful teacher education programs that Darling-Hammond and her collaborators have identified is that those programs have "a common, clear vision of good teaching that permeates all course work and clinical experiences" (Darling-Hammond, 2006a, p. 41). Such a generality cannot tell us what such a common vision should look like or in what way it should permeate the whole program; rather, this generality tells us that the powerful teacher education programs identified in the study have this general feature in common and that this fact should *sensitize* us to the question whether and how our own programs have a common and clear vision of good teaching that permeates course work and the practicum and to the possibility that our programs not having such a clear vision might be linked to them not being so powerful. Such focused sensitivities help us respond *more intelligently* to the challenges we face in our own efforts to improve our programs *within the specific contexts they are embedded in.* In other words, the type of generalities generated in teacher education research provides us with the foundation for *practical wisdom* needed in all fields of applied knowledge (see, for instance, the case studies in Schwartz & Sharpe, 2010), rather than with a blueprint of what all powerful teacher education programs have to look like. This view of the role of generalities in teacher education research as a basis for the enactment of practical wisdom in teacher education seems also to be taken by Zeichner (2005), when he writes:

> Research can help us think about teacher education in more useful ways and can offer guidance as to practices effective in accomplishing particular goals, but it cannot tell us everything to do in teacher education programs or in the policy arena. (p. 739)

The already referenced value-saturation of teacher education presents, finally, the third challenge to any generalizability of teacher education research findings. This value saturation leads to shifting foundations of the field with quite different research approaches, which Labaree (2004) has identified as characteristic of educational research in general. This challenge will be discussed further in a different context below.

Also, teacher education research does not generate causal relationships, at least not in a general sense that would allow transferring findings from the specific context in which the findings were generated to other specific contexts. Kennedy (1999; see also Kennedy, 1996) discusses five teacher education research genres based on studies that all contribute to the question what impact teacher education has on teacher candidates: multiple regression research, follow-up surveys, comparative studies, experimental research, and longitudinal studies of change. In Kennedy's assessment, only two of them (experimental research and longitudinal studies of change) have any chance at getting at causal relationships between being enrolled in a teacher education program and good teaching. However, even in the case of those two, any claim of a causal relationship, she argues, can only be a weak one. Experimental research does not address the whole program but rather particular components, and the

changes made as part of the experiment are only of short duration. Longitudinal studies, on the other hand, can generally only involve a small number of teacher candidates and, thus, cannot support any general causal relationship between the enrollment of a teacher education program and a graduate's teaching practice, for instance.

That teacher education research is a soft and applied science is not because those doing teacher education research decided that that is what they want it to be. Rather, teacher education research is a soft and applied science because teacher education is concerned with soft and applied knowledge. If you want to insert new window glass into a frame, you would not use a hammer to do so, at least not the kind of hammer you use for driving a nail into a four-by-four. You would not do that because you cannot handle such a hammer, but rather because it is the wrong tool for the job; the job requires different tools. The soft and applied sciences need to develop and embrace their own methodologies that might be quite different from those that people in the hard and pure sciences find appropriate to generate hard and pure knowledge.

However, soft knowledge does seem to be less acknowledged in the Canadian public discourse. For instance, as we write this introduction, the Globe and Mail has just started a once-a-week series "Time to Lead: Building a New Canada", in which the national paper "will explore Canadian innovation – and the people behind them – that are changing the landscape in five key sectors" ("Time to Lead", 2011). Those key sectors are: wind power, health care, energy, transportation, and biotechnology. Where are the innovations from the social sciences or education that help build a new Canada? Taking the notion of soft and applied knowledge seriously, one can only hope the public discourse recognizes what Berliner (2002) has said about the academic discipline – education – that is both soft and applied:

> Educational research is considered too soft, squishy, unreliable, and imprecise to rely on as a basis for practice. . . . But the important distinction is really not between the hard and the soft sciences. Rather, it is between the hard and the easy sciences. Easy-to-do science is what those in physics, chemistry, geology, and some other fields do. Hard-to-do science is what the social scientists do and, in particular, it is what we educational researchers do. In my estimation, we have the hardest-to-do science of them all! (Berliner, 2002, p. 18, as quoted in Labaree, 2004, pp. 68-69)

This perspective about education being a hard-to-do science, however, comes with the *research methodological responsibility* to design research studies well. Kennedy (1999) makes this very point when discussing research that is concerned with the question whether teacher education makes a difference to the teachers' teaching:

> The sad fact is that poorly designed studies are not merely *non*informative. Often, they are *mis*informative: by failing to document the content and character of teacher education programs, they confuse quantity with quality. By failing to consider what teacher candidates know or think prior to participating in teacher education, they may over- or under-estimate the contribution of teacher education. By failing to consider the context in which teachers are teaching, they may confuse the effects of the current teaching context with the effects of the earlier teacher preparation. When they study only handfuls of teachers, they cannot tell us how widespread their observed changes are likely to be. (p. 104)

It is the complexity of aspects that require consideration that make (teacher) education research such a hard-to-do science.

The Relevance of the Evidence Question

In the previous section we addressed some fundamental issue around the *evidence question*: What can and should we expect from teacher education research for the purpose of guiding our decisions concerning the pre-service education of teachers? In this section we discuss *the relevance* of this question: Why should we bother with the question in the first place? The evidence question, we argue, is relevant for several reasons, each generally linked to the interests of a particular group.

First, the evidence question should be relevant to *teacher education researchers* for reasons all foundational questions are relevant to a discipline. While foundational questions are generally not at the centre of a field of inquiry, they do deal with the foundations of a discipline upon which the work of the discipline is built. How foundational the evidence question is for the discipline of teacher education research should have become clear from the implications discussed at the end of the previous section.

Second, the evidence question is also of great relevance to *the teaching profession* as a whole. Cochran-Smith (2001) has characterized the questions that have driven reform in teacher education – and, thus, teacher education research – in the USA over the last sixty years. She has identified four different focus questions of which the following three are of interest here:

1. *The Attribute Question*: "What are the attributes and qualities of good teachers, prospective teachers, and teacher education programs?" (p. 4)
2. *The Effectiveness Question:* "What are the teaching strategies and processes used by effective teachers, and, what teacher education processes are most effective in ensuring that prospective teachers learn these strategies?" (p. 4)
3. *The Knowledge Question*: "What should teachers know and be able to do" and "What should the knowledge base of teacher education be?" (p. 4)

Cochran-Smith identifies each of the focus questions as the prominent one driving teacher education research and reform during a particular time in the history of teacher education in the USA. It is not clear to what degree there is a match between those phases and any phases in Canadian teacher education research, but it seems reasonable to assume that all of these questions have played and might currently play a role in Canadian teacher education research, since the question what knowledge and attributes teachers need in order to teach effectively is so fundamental for all teacher education programs and course instructors as is the question of how we know that our teacher candidates are successfully learning. The three research questions suggest the importance of the evidence question for the teaching profession. The teaching profession should and can expect from teacher education research that they help establish a research-based foundation for teaching as a profession in its own right, requiring certain attributes and having a certain knowledge-base as is characteristic for other professions (see, Darling-Hammond & Bransford, 2005).

Third, the evidence question is also relevant to society at large. As a mainly publicly funded endeavour, university-based teacher education is to be accountable to the public for the "success" with which university-based teacher education programs prepare teachers for the Canadian school system. In the USA teacher education in general and university-based teacher education in particular have been for a while under heavy criticism and even existential threat (see, for instance, Darling-Hammond, 2000; and Ballou & Podgursky, 2000), and accountability has been understood as having to justify (university-based) teacher education's very existence. In the Canadian socio-political and cultural context, university-based teacher education is well established and governmental accountability measures for teacher education programs are more about the provision of general expectations concerning particular program features. What the Canadian society should expect from Canadian teacher education research is that it provides not just support for what those general expectations should reasonably be in the first place, but also that it provides teacher education institutions with an understanding of how to meaningfully design its programs relative to the desired purposes and how to achieve those purposes.[4] As Cochran-Smith (2005) – with reference to Cuban (2004) – states, "contrary to the popular belief that accountability is a relatively new development in education, public schools have, in actuality, never been '*un*accountable.' Rather, Cuban argues, definitions of accountability and quality schooling have changed" (p. 411). The evidence question, thus, becomes important for a notion of accountability that is built on evidence, and sometimes, it seems, provincial governments need to be reminded of the importance of such an aspect of accountability toward the public as Thomas's chapter (chapter 18) reminds us with reference to the situation in Quebec.

Forth, the evidence question is relevant to *faculties of education* as institutional parts of universities. Universities are places of research but they are also places of teaching, and if it were not for the latter, many components of the former would not exist – at least not in the way they currently do. Faculties of education as the academic units that deal professionally with educational issues should be called upon by the university to provide the expertise for the teaching components of a university's obligations toward the public, although, to our knowledge that generally does not seem to happen at Canadian universities. Identifying what can and should be expected from teacher education research should be, thus, of great importance to faculties of education in relation to their (potential) role within the university. It is in the interest of faculties of education to claim their status as the academic unit that can and does provide expertise in educational matters, and responding to the evidence question is central to that claim. This is also important for faculties of education's own obligations toward the school teaching profession, which might involve teaching arrangements or program designs that run counter to common university practices as defined by other faculties. The tensions that can come from attempts by faculties of education to overcome constrains set by traditional university teaching practices are discussed to some degree in Dillon and O'Connor (chapter 5).

Finally, the evidence question should be of greatest relevance to *teacher education programs*. This point seems self-evident, and a number of chapters in this book illustrate this point quite vividly (see, for instance, Goodnough, chapter 7; Maynes & Hatt, chapter 11; Riches &

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[4] This should not suggest that there is a linear means-end relationship between research findings and decisions around teacher education programming or teaching in teacher education programs; see the discussion below.

Benson, chapter 16). Here we only want to point out that the argument that teacher education research is relevant to teacher education program reform does not mean that *in actuality* faculties of education use teacher education research for their program reform activities. As Dillon and O'Connor (chapter 5) wonder: "Why does it seem to be the case that *despite* such evidence most teacher education programs are still not using such evidence for program design?" (p. 80). Reading all the chapter contributions carefully, what we can determine is that it is not possible to generate a body of evidence that can be objectively applied, but that it is our very interests and our participation in the work in which we are engaged in that is itself a source of how we might think about our work. Taylor (1995) puts this evocatively:

> Plainly we couldn't have experience of the world at all if we had to start with a swirl of uninterpreted data. Indeed, there would be no 'data,' because even this minimal description depends on our distinguishing what is given by some objective source. (p. 11)

While there is probably little disagreement about the general idea that research evidence is and should be important for any professional undertaking, including teacher education, challenges around the role, status, form, and so on of research evidence in and for teacher education emerge once one inquires deeper into different aspects of the notion of evidence in the context of teacher education research, which, both Taylor (1995) and Gadamer (1989) suggest, requires a much more reflexive stance, one that asks how we ourselves are already implicated in multiple ways of interest and participation.

The kind of research the chapters in this book offer follow Gadamer's (1989) explication of practice: that it does "not consist simply in the circumstance that one reflects upon the attainability of the end that he thinks is good and then does what can be done" (p. 81). Instead, as Gadamer suggests, practice – as practical reason – is not motivated by epistemological or utilitarian goals and desires, but rather, by trying to decide what can best be thought of as possible and oriented to what we believe points to the good in things. Such a form of reflection is necessarily context dependent. In Gadamer's words, "practice consists of choosing, of deciding for something and against something else, and in doing this a practical reflection is effective, which is itself dialectical in the highest measure" (1989, p. 81). "Dialectical" refers in this sense to an attunement to the particular in terms of place and time, and how that both informs theoretical understandings and our responsibilities to think about what are the best courses of action within the situations in which we find ourselves. It is in this sense that we might also understand "application": not as the application of theory to practice, but to see it as a process that is integral to fostering questions that may disturb the taken-for-grantedness of the everyday contexts in which we work.

Both Gadamer (1989) and Taylor (1995) suggest that coming into understanding about the practices and events that characterize our responsibilities is a deeply participational activity. Each of the chapters that follow illustrate this in diverse ways. Research and how we understand research is a practice of what Gadamer calls "social reason": we work with others in trying to make sense of the contexts in which we work, and that the forms of knowledge we generate (evidence) requires good judgement about what it means and how it can be used, but in concert with all of those with whom we share responsibilities for teacher education. Following Flyvbjerg (2001), the kind of research required in teacher education is not simply

about generating evidence, but rather to deal with questions like what is most desirable and why and to what and by what are we oriented in our decision-making?

We briefly want to discuss the implications of this further with the help of the following questions: "Evidence *for whom*?", "Evidence *for what* (purpose)?", and "Evidence *of what*?" As before, we will draw on some of the chapters in this book for illustrative purposes.

Evidence for Whom?

The chapters in this book illustrate the range of those for whom evidence from teacher education research does, can, and should count. There are, first and foremost, teacher education faculties as a whole, which should be interested in research evidence for program review and reform purposes. Most chapters in this book discuss issues around evidence for education faculties (chapters 2, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16). Second, teacher educators themselves should be interested in research evidence to develop their pedagogy and other aspects of their course teaching, for instance through self-study of teacher education practices (Bullock & Russell, chapter 3; Thomas, chapter 18), through a developmental evaluation approach (Poth, chapter 14), or through narrative research (Li, Nelson, Young, Murphy, & Huber, chapter 9). Third, universities at large should be interested in teacher education research. In Canada, other faculties than faculties of education are involved in the preparation of teachers through the requirement that teacher candidates have successfully completed course work in a teachable subject or teachable subjects. Proulx and Simmt (chapter 15) draw attention to mathematics teacher education research that questions the appropriateness of this particular division of labour among faculties in the preparation of teachers. Dillon and O'Connor (chapter 5) discuss the question why teacher education programs do not seem to have the features that research on effective teacher education programs suggest they should have, and they reference teacher education scholarship that identifies conditions within the university at large that (can) constrain teacher education programs and faculty in implementing the identified features. Roger, Maubant, Lacourse, and Correa Molina (chapter 17) discuss teacher education programs in the larger context of professional education at universities in general. Fourth, ministries of education – and by extension professional colleges of teachers in the provinces where those exist – who establish certification and accreditation requirements, should take note of teacher education research, as is strongly argued for in Thomas (chapter 18). There is one group that should take note of (pre-service) teacher education research but is not mentioned in any of the chapters: school divisions. The most prominent area in teacher education research that school divisions should be interested in is research concerning the practicum component of teacher education programs. However, school divisions who take the idea of professional development schools (see, for instance, Darling-Hammond, 2005) or the idea of a "continuum of teacher development" (see, for instance, Falkenberg, 2010; Feiman-Nemser, 2001) seriously should have an interest in teacher education research, because of the integration of the pre-service and in-service aspect of teacher development within these two ideas.

Some issues arise when considering the question for whom the evidence from teacher education research does, can, and should count. First, groups external to teacher education research, like provincial governments, might take teacher education research seriously, but do

not view teacher education research and its findings as what they have to be taken as, namely as a soft and applied science that generates soft and applied knowledge. This is currently a particular problem in the USA, where research standards of hard and pure sciences are used to measure teacher education research studies and their findings (see, for instance, Cochran-Smith & Fries, 2005, pp. 46-47).

Second, while teacher education research should be important to some groups, it does not mean that it is. On the one hand, this means that already generated evidence from teacher education research is not considered by those groups; on the other hand it means that teacher education research is not considered an important means to generate evidence that should be considered important. Thomas (chapter 18) and Proulx and Simmt (chapter 15) provide illustrative examples for the former. Thomas (chapter 18) suggests that teacher education research findings have not been considered at all in the recent changes to teacher education by the government of Quebec. Proulx and Simmt (chapter 15) suggest that evidence in mathematics teacher education is not taken seriously in faculties of education and the university at large when designing teacher education programs. Martin and Russell (chapter 10) provide an illustrative example for the latter case. They discuss what they see as a general neglect of researching teacher candidates' learning during their practicum despite the clear evidence of the perceived importance of the practicum experiences by teacher candidates.

Third, to what extent and in what ways groups do consider teacher education research depends greatly on the socio-cultural context at a given time. In the USA there have been on-going demands for research evidence for the effectiveness of university-based teacher education (see, for instance, Cochran-Smith, 2006; Wineburg, 2006). In Canada, on the other hand, there is no indication that university-based teacher education is in any existential danger; provincial governments and professional colleges of teachers hold teacher education programs to account through certification requirements and program accreditation, which leave faculties of education with a lot of flexibility in designing their programs. This stark contrast in the role of teacher education research for program accountability is due to and an indication of quite different socio-cultural contexts in both countries. Roger et al. (chapter 17) consider in their discussion the move of teacher education from normal schools to faculties of education in Quebec in 1969. This move does not just *reflect* a particular socio-cultural and socio-political context in Quebec at that time – which the chapter discusses – but it has also *created* a new socio-cultural context for teacher education in Quebec by placing it into a university context where research is an integral part of the functioning of the academic units that constitute the university.

Fourth, the consideration of teacher education research evidence is always a consideration *by someone*, which implies the importance of the *process* of considering evidence. Bullock and Russell (chapter 3) illustrate this point when they discuss the scenario of someone becoming defensive because of what is presented as the problem to be addressed. What this process of considering evidence looks like, so Bullock and Russell's argument, is shaped by our own framework of how we engage with problems and learn from our engagement with problems. Hirschkorn and Kristmanson (chapter 8) consider the role of anecdotes as evidence for teacher education program changes in the context of their own teacher education program. The cases they discuss illustrate how different standards for the process of considering evidence lead to quite different views on the role of anecdotes in teacher education program changes. (It might be that the cases discussed in Hirschkorn and Kristmanson (chapter 8) are illustrative examples for the use of different frameworks of how to engage with problems

discussed in Bullock and Russell (chapter 3).). Finally, the account of the carefully constructed process of revising the teacher education program at Memorial University by Goodnough (chapter 7) illustrates how important the process of considering evidence is.

Evidence for What (Purpose)?

The chapters in this book illustrate the range of purposes for which evidence from teacher education research can, is, and should be used. First, there is the general purpose of a faculty- driven teacher education program review for which evidence is sought – which is the purpose most often addressed in the chapters in this book (chapters 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16). Second, the issue of research evidence for an externally (government) driven teacher education program review is addressed in Thomas (chapter 18). Third, evidence sought for the purpose of improving teacher education practices – as distinct from evidence sought for program design – is addressed in Bullock and Russell (chapter 3), Poth (chapter 14) and Thomas (chapter 18). Fourth, Barter (chapter 2) discusses a study that seeks evidence for the purpose of better understanding the teaching context for teacher candidates, in this case, the teaching context in rural settings. Fifth, a number of chapters discuss explicitly the issue of evidence for the purpose of assessing the implementation of a revised or newly created teacher education program (chapters 4, 8, 10, 12). Next to these five more general purposes of seeking evidence from or through teacher education research, two chapters address more specific purposes. Ferguson, Wiebe and MacDonald (chapter 6) and Li et al. (chapter 9) discuss evidence for the purpose of understanding teacher identity development in teacher candidates; in addition, Li et al. (chapter 9) discuss evidence for the purpose of understanding the negations of a curriculum of lives within a faculty of education.

Some issues arise when considering the question for what (purpose) evidence from teacher education research is considered. First, for some of the purposes listed above, like internally or externally driven teacher education program reform, a more systematic and programmatic approach to inquiring into central issue of teacher education program design seems to be the best approach (see Falkenberg, 2008; Zeichner, 2005). Generally, however, it seems that what drives teacher education research in Canada is a researcher's or a group of researchers' research agenda that might or might not have one of the larger purposes in mind or might or might not link with the research purpose of other researchers or groups of researchers. Teacher education research as a soft science with multiple and over-time shifting foundations develops research genres of which Kennedy (1996) writes:

> Researchers within each genre tend to build on other work within their genre more than on work in other genres. Most of them represent communities of scholars who share a set of norms and values and who share a particular view of, and interest in, teacher education. (p. 122)

Some chapters in this book illustrate this very situation.

Second, the question for what purpose we want to find evidence is crucial when considering evidence. If that would not be the case, Bullock and Russell (chapter 3) would not need to make the case that self-studies of teacher education practices should be acknowledged as being quite relevant for teacher program review. As Cochran-Smith's (2001) historical

analysis of the research questions that guided research in teacher education in the USA illustrates (see above), one and the same purpose can morph into quite different research questions that provide evidence for quite different things. For instance, let us assume that the purpose for which we want to find evidence is to improve teacher education by finding evidence for what competencies teacher candidates need at the time of graduation. If we frame the research question as an "attribute question" (see above), our research looks for evidence for what attributes good teachers have; if we frame the research question as a "knowledge question" (see above), our research looks for evidence for what good teachers know.

   Third, once one moves from more general purposes for which one needs evidence from teacher education research, like the purpose of designing an effective program, towards more specific ideas about what that actually means, networks of quite varying assumptions (Quine & Ulian, 1970) become apparent:[5]

> The different ways outcomes are being constructed in teacher education rest on differing assumptions about what teachers and teacher candidates should know and be able to do, what K-12 students should know and be able to do, what counts as evidence of 'knowing' and 'doing,' and what the ultimate purposes of schooling should be. Different premises about the purposes of schooling mean different ways of demonstrating that teacher education programs and procedures are 'accountable,' 'effective,' or 'value-added.' (Cochran-Smith, 2001, p. 12)

Thus, preferences for one rather than another network of assumptions involve ultimately value rather than empirical judgments, as Cochran-Smith (2001) – with reference to Hiebert (1999) – points out:

> Standards, the rightness or legitimacy of priorities and goals are questions of value and belief rather than questions of evidence that can suggest educational policies based on varying levels of confidence. Values questions, of course, cannot be settled empirically. It is important to acknowledge, however, that in some cases, policies and practices are driven more by values than by empirical evidence, and, as I indicate throughout this article, all policies and programs of research are ideological in a certain sense. (Cochran-Smith, 2001, p. 5)

With value issues being an integral part of teacher education research, "research" needs to be understood in a wider sense than to just be "empirical research" and needs to include scholarship based on, for instance, philosophical inquiry (e.g., Bubules & Warnick, 2006).[6] Furthermore, all evidence from teacher education research needs to be qualified to a set of assumptions which cannot be justified by referencing "empirical findings".

   Forth, the previous issue makes clear how closely the question "Evidence for what (purpose)?" discussed here is linked to the question discussed previously ("Evidence for whom?"): those who are interested in evidence from teacher education research have particular

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[5] For another illustrative example for the value-dependent view of teaching see Falkenberg (2007), where the argument is advanced that different assumptions about the human condition lead to different views of teaching as a moral endeavor and, thus, different foundations for teacher education.
[6] From a much broader perspective – the perspective of all social sciences – this point is also made by Flyvbjerg (2001).

value-based sets of assumptions upon which their interests are based; those assumptions shape their view of what research evidence should be considered.

Evidence of What?

The chapters in this book illustrate the range of what evidence is sought for in teacher education research (we list here a selection only): evidence of what effective teacher education programs look like (chapter 5); evidence of teacher candidates' learning in a teacher education program (chapters 5, 10, 12, 13); evidence of teacher identity development in teacher candidates (chapter 6); evidence of teacher educators' assumptions about learning (chapter 3); evidence of what evidence is or is not used in teacher education program design (chapters 15 and 18); evidence of a more equitable admission practice (chapter 4); evidence of stakeholders' views about aspects of teacher education (chapters 2, 7, 11, 14); evidence of teacher educators' views of desired qualities of beginning teachers (chapter 11).

It is probably for the question "Evidence of what?" where the status of teacher education research as a soft and applied science plays the most prominent role. Because in soft and applied sciences different foundations of the discipline and different research approaches exist side by side within the discipline, what evidence is needed for a given purpose is judged quite differently, depending on a researcher's (or research interpreter's) foundational assumptions for the discipline. For instance, let us take the question of what impact teacher education programs of a certain type have on teacher candidates' learning to teach? This question provides us with a response to the question "Evidence of what?": We are looking for evidence of the impact teacher education programs of a particular type have on teacher candidates' learning to teach. Viewing teacher education as a soft and applied science, however, suggests that how this "what" is actually understood and translated into actual research studies will depend on the foundational assumptions and the general research approach one subscribes to. Let us illustrate this point. As already referenced above, Cochran-Smith (2001) has distinguished three different focus questions for teacher education research: the attribute question, the effectiveness question, and the knowledge question. Each of those research focus questions interprets what "learning to teach" means in a different way. From the attribute question's perspective, learning to teach means developing the attributes and qualities of a good teacher. From the effectiveness question's perspective, learning to teach means becoming competent in enacting the teaching strategies and processes used by effective teachers. Finally, from the knowledge question's perspective, learning to teach means that they know and are able to do what is codified as the knowledge and abilities for the teaching profession. While all these questions are linked, they are, nevertheless, grounded in a fundamentally different way of understanding what "learning to teach" means, and, thus, what teacher education programs would focus on. For instance, the first question emphasizes much stronger than the others the quality of a teacher as a person (focus is on *being* a teacher), while the second question emphasizes much stronger the actual practice of teaching (focusing on *teaching as a practice*).

The matter becomes even more complex – as it is to be expected for the soft and applied science of teacher education – if one considers the different ways in which each of the three questions can further be divided based on additional assumptions. For instance, what would best measure teachers' knowledge and abilities (third focus question)? Are we looking

for evidence for teacher knowledge and abilities through written teacher tests? through understanding performances (Perkins, 1992, p. 77-79; Cochran-Smith, 2001, pp. 20-29)? Or should we assess knowledge and ability through its impact on student learning?

In addition to these different conceptualizations and operationalizations, there are also a number of different research approaches used to address the question of what impact teacher education programs of a certain type (or teacher education programs generally) have on teacher candidates' learning to teach. Kennedy (1996, 1999) has discussed studies that could be drawn upon to respond to the question, and she identified (as mentioned above) five different "research genres" in teacher education. As Kennedy has suggested, each of these genres focuses on a different aspect of teacher education and makes different assumptions about what evidence counts toward a valid response to the question. The discussion in Li et al. (chapter 9), which shifts the impact question from teacher candidates' learning to teach toward teacher candidates' identity formation and the focus from causal links between program features and program impact to the negotiations of "curriculum lives" of teacher candidates within a teacher education program, lead to quite different perspectives of what evidence is important and, even, what should count as evidence in the first place.

Evidence as a Basis for Teacher Education Program Improvement / Reform

In this final section we like to list a number of points that we see are suggested by or are linked with the discussions in the preceding sections for the issue of using evidence for teacher education program improvement or reform.

First, teacher education research is a soft science, which, as such, constantly rebuilds its foundations and has, thus, a multitude of research approaches. The term "soft" is not mean to denigrate teacher education research, but it is to speak for its complexity and that it cannot simply function only in terms of a natural science model; it affirms the limits of generalizable forms of knowledge within teacher education. Even if all the chapter contributors do not necessarily or explicitly make this argument, the very grounds of their concerns and interests speak to complexity and a questioning of theory into practice rationality. In each of the following chapters context is paramount. The authors write of the complexity of the environments in which we work, and the temporality of experiences, in conditions that are always shifting. What we study is not simply the facts of something, but as Ferguson Wiebe and MacDonald (chapter 6) note, "we ought to explore the mental, emotional, physical, moral, ethical, even spiritual processes of what transpires in our classrooms as part of the lived experience of becoming teachers in our program" (pp. 87-88).

Complicating research into teacher education further, several of the ensuing discussions raise issues that cannot be reduced to discovering the right evidence for the resolution of the issues they raise. For example, several of the authors refer to issues such as accountability, and the question of how teacher educators may speak to the truth of practice. The discussions about accountability and the question of "standards" for practice raise issues not so much of "evidence" but rather more for how we make good judgements, and indeed how we speak for issues that ask us to negotiate exercises of power and authority. Along similar lines, several of the chapters raise the question of what constitutes "professionalization" of teaching, and how

that is not a question that can be resolved by research but one that is deeply historically, culturally and certainly politically construed. The question might then well be, how we as teacher educators speak to that question, and with what authority.

Since teacher education research cannot avoid these difficult challenges, it should use them to its advantage and use multiple measures to assess whatever aspect needs inquiry into. The multiple-measures approach to evaluate the Stanford Teacher Education Program (Darling-Hammond, 2006b) can serve as an illustrative example. To assess outcomes of the program, a set of different research and assessment strategies were used. To track teacher candidates' learning, a multitude of data were collected: perceptual data through surveys and interviews with teacher candidates to assess their perception of their own learning; independent measures of their learning like pre- and posttests, performance assessment, work samples and observational data; post-graduating observation data of teacher candidates' classroom teaching.

Second, if teacher education research as a field of inquiry involves a range of different "research genres", as Kennedy (1996, 1999) has illustrated, and if, as the first point has argued, the field of teacher education wants to benefit from the multitude of research approaches, then the work done across the different research genres and approaches should be *bridged* in a way that allows the linking of their respective findings. Such bridging needs people who do the actual bridging, implying that researchers are needed who transcend particular research genres to help make sense how research within each genre contributes to an overall picture of the issue under investigation, and to an understanding of the possibilities and limitations of each genre. Kennedy's (1996, 1999) work illustrates what such bridging can look like.

Third, and linked to the second point, having such a diverse range of research approaches in teacher education, the field of inquiry would greatly benefit from a more intentionally coordinated and more systematic research effort around issues of particular interest to teacher education. For instance, Zeichner (2005) provides a number of recommendations that, if implemented, would work toward a more intentionally coordinated and more systematic research efforts in teacher education research. His recommendations include: linking research studies stronger to theoretical frameworks; using a more consistent definition of terms; and "[developing] more *programs of research* in teacher education where researchers consciously build on each other's work to pursue a line of inquiry" (p. 742).

Fourth, if teacher education research generates soft and applied knowledge that is tentative and contextual, the best knowledge to inform a teacher education program is knowledge that gives consideration to the particular context of the particular program, in other words, knowledge that is locally generated. Such locally generated knowledge, in particular if it is generated in light of "generalities" generated in other teacher education research studies, form the very basis for making wise decisions in teacher education as discussed above. This means that teacher education programs should be involved in systematic and *on-going* research about the appropriateness of the learning experiences that the program provides to its teacher candidates relative to what are considered the desired outcomes of the program. At the time a program is put in place, the impact of the program cannot be known, the appropriateness of the program relative to the given contextual parameters cannot be known, and so on, which means that faculties of education need to systematically and on an ongoing basis inquire into the program's *contextual appropriateness*. Also, new faculty joining a teacher education program, new teaching practices used in courses, and other changes within a program over often short periods of time change the context for the program, which, in turn, require new soft and

applied knowledge. Self-study of teacher education practices (Bullock & Russell, chapter 3) and a developmental evaluation system (Poth, chapter 14) are examples of ways in which faculties and individual teacher educators can engage in on-going research about the appropriateness of teacher candidates' learning experiences. Cochran-Smith and the Boston College Evidence Team (2009) illustrate the "institutionalizing of inquiry and evidence" into the culture of teacher education at Boston College.

Fifth, and linked directly to the previous point, if faculties of education are to engage in systematic and on-going research about the contextual appropriateness of their teacher education program, the program structure needs to be flexible enough for the program to be able to respond to evidence generated through the local research undertaken – within the larger picture generated by teacher education research as a field of inquiry. In other words, teacher education programs should be designed in a way that allows the enactment of practical wisdom. One way in which a program can build in flexibility is by creating space for *pilot projects* within the larger program that are created to experiment with alternative ways of creating meaningful learning experiences for teacher candidates.

Sixth, the foundations of teacher education and teacher education research – as was argued is the case for all soft and applied sciences – are constantly rebuilt, leading to alternative or complementary research approaches and teacher education practices and program designs. Embracing this situation as an integral part of the discipline *requires* a well developed sub-field of inquiry in the foundations of teacher education and teacher education research. Considering how value-laden the soft and applied knowledge is that teacher education research generates for teacher education practice(s), inquiries into the foundations of teacher education practice(s) and teacher education research are not a side issue within teacher education (research) that we can get to if we have some extra time. Rather, those inquiries provide us with the understanding *necessary* to make us wiser teacher education researchers and wiser "users" of teacher education research by making us more sensitive toward (the functioning of) the often hidden assumptions that are made in teacher education practices and research and the tentative and contextual nature of the knowledge that teacher education research generates.

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Chapter 2

Rural Practices as Evidence for Teacher Education Programs

BARBARA BARTER

Using extensive literature as well as participant dialogue from research conducted over two terms of teaching a graduate course on rural education, this chapter explores teacher education programs and the effects such programs may have on practicing rural teachers who identify themselves as being on the periphery of their profession. The exploration focuses on what can and should count as evidence in research and legitimate knowledge in teacher education and, in particular, how it gets lived out in rural practices. The chapter responds to the findings of the writer's research study among rural educators, of an urgent need for rural relevance, revised rural theorizing, and enriched teacher education programs that feature rural interests. It is a call for more research framed in the context of rural models and values. Such a call challenges universities to become more inclusive of the knowledge base for their teacher education programs, especially as it pertains to rural and remote communities and their schools. It is the author's contention that what may be required is a knowledge base shift within universities that is inclusive of its peoples. Such an inclusion provides opportunity to expand the complex phenomenon of teaching and learning that could be of benefit to both urban and rural educators.

Introduction

In 2005 I began teaching a graduate course on current issues in rural education[1]. Although it was a distance education course with students distributed across provinces and countries, as the instructor I attempted to make the course interactive by having students respond to article

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[1] For the purposes of this chapter, rural communities are geographically defined as those having a population of less than 5000 and/or housing rural and small schools (Government of Newfoundland and Labrador, www.edu.gov.nf.ca). This includes regional schools, which have been created to accommodate more than one community. As a social/cultural representation, rural is defined using characteristics adapted from the writings of Stern (1994) and Budge (2006) and condensed into the following propositions: 1) The family, church, and school are at the heart of rural communities; (2) The school is central to the community; (3) Regional differences are important; and (4) The importance of the sense of place affects schools and shapes rural life. Rural education refers to the teaching and learning that takes place in these schools and communities.

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summaries, challenging them with questions or stories of experience, and asking for composite small group answers to questions directly posed from the readings. I wanted the graduate students to think critically about what is being written in the research and how those writings compared to their experiences of practice. It was here that I heard teachers recounting narratives of rural education experiences that both supported and counter-argued the existing literature and current systemic actions that affected them professionally and personally. Their voices spurred me into research which I began in 2006 and remains a work in progress as I work through various layers of the issues.

The research questions focused on: (1) the current issues in education within the communities in which these graduate students worked; (2) how these issues compared to the literature; and (3) what students thought supporting agencies such as governments and universities should do to better accommodate rural education. Several themes emerged through this research that highlight the daily challenges facing teachers in rural areas and these are presented elsewhere. The theme which is the focus of this chapter is broader and, therefore, more systemic in nature, a meganarrative, so to speak, "of accountability policy" (Olson & Craig, 2009).

Participant discourse consistently calls for alternative epistemological and pedagogical approaches in teaching, leading, and learning that will benefit[2] rural education and rural educators. In revisiting the data, I have reflected on narratives that highlight existing epistemological and pedagogical tensions and their effect on everyday practice. These include tensions between theory and practice, teacher training and teacher work, and participants' feelings of nonrecognition (Chambers, 1999; Taylor, 1992) as professionals.

Purpose

This chapter explores the design of teacher education programs and the effects such designs have on practicing teachers who identify themselves as being on the periphery. The basis of this exploration centres on what can and should count as evidence in research and legitimate knowledge in such a diverse area as teacher education and, in particular, how it gets lived out in rural practices. Argument is put forth through propositions intended "to deepen understanding and provoke some insight" (Hodgkinson, 1978, p. 222) into the complexity and tensions of institutional life as it pertains to the theory and practice of teacher training and teacher work in rural spaces.

It should be noted that, although I stress the need to strengthen teacher education programs for rural teachers, I have not addressed what that program should look like. Instead, being conscious of not trying to "do" something to rural teachers rather than working "with" them, I have highlighted the importance of their input. My argument, based on literature as well as participant responses, is that practice in rural settings can and should serve as evidence for teacher education programs.

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[2] Although there was acknowledgement from participants of an extant literature on rural education, they argued that much of it substantiates the need "to fix" rural education in order to bring it in line with the more standardized forms found in urban schools.

The Study

Setting the Research Context

The research was conducted through a graduate level distance education course on current issues in rural education. A proposal to the university ethics committee was submitted after the completion of one of my teaching terms and before the beginning of the next. Students entering the course during that term, were informed prior to its commencement that they would be invited to be a part of intended research but that consent to participate would not be requested until all university requirements were completed including the submission of marks and all other forms of evaluation. They were also provided an unbiased[3] third party to whom they could anonymously seek information or express any concerns. The same three main teaching strategies set up to teach the course were used as data. These included small group composite forums, individual responses to those forums, and instructor responses.

The responses of 21 students (15 of which were used for more in depth analysis) were anonymously[4] collated, creating over 1000 pages of dialogue (750 pages from 15 participants formed the main data base). The collection of portfolios was read and theme color-coded in priority of those, which answered the three specific research questions and became the intended outcomes of the research. Other themes, which students added through reflection once responses were placed on-line and open for discussion with other groups, were recorded as unintended outcomes.

Limitations and Delimitations of the Study

This study was conducted within the context of one Canadian university with data from participants in a distance education graduate course designed for educators completing a Master of Education degree. The findings, from that perspective, represent a largely localized instance of curriculum research in the area of rural education. However, there are two factors I considered in the validation of research texts. One is the venue - it was a distance education course which helped broaden the lens in that some participants either taught outside the province, or had completed their undergraduate degrees in other universities and brought those experiences to the course. Second, although I used the archived dialogue of 21 students as field texts there were over sixty students (during the research period) who recounted similar experiences.

Since I built the study around theories of constructivism (Glesne, 2006) and personal practical knowledge (Connelly & Clandinin, 1988; Elbaz, 1983), it is evident that numbers were not used as a means of justifying change in teacher education programs. My choice of inquiry is "strongly autobiographical (Clandinin & Connelly, 2000) and is justified, at least within the realm of interpretive forms of research, by the narratives of practice I heard from the small sample of participants in the study and that I continue to hear from practicing teachers as well as through the research of others cited throughout the chapter. Hence, the combination of the

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[3] Unbiased refers to the fact that the person was in a position of authority at the university with no teaching connection to participants in the research study.
[4] Names of participants, schools and communities were removed.

ongoing narratives of teacher experience, the fact that some of the teachers completing the course lived outside the province and country, and much of the literature on Canadian rurality, leads me to conclude that these issues warrant attention.

The literature review is also limited in the sense of discussing rurality as well as rural education (Cloke, 2006). Since the study was localized, its intent was to compare teachers' narratives of rural educational experiences to those found in North American literature, again anchoring it within a specified research context. Although the study was not designed with a global scope, readers may think of it as an example of curriculum research that is grounded in the personal and professional knowledge of one group of practicing teachers and their instructor. As such, it may serve to illuminate issues which can be expanded, and to demonstrate research opportunities that span the traditional boundaries of academic and professional practice to become more "transferable" (Lincoln & Guba, 1985, p. 124).

Research Findings

The intended outcomes focused on the immediate issues stemming from core and non-core curriculum teaching responsibilities such as: an inability to offer a wide range of courses, accommodating extra-curricular activities, negative effects of student bussing, the impact of distance education, and the use of strategies such as multi-grading. They also included an inability to attract and retain qualified teachers and administrators who had broad enough training to teach a wide variety of subjects, small operating budgets based on enrolment rather than need, and an insecurity surrounding teaching allocations based on a student enrolment formula.

The responses from the intended outcomes validated the extant literature but, as researcher I felt that deeper (more meta-level) issues emerged from the ongoing reflection and dialogue. As these unintended outcomes began to crystallize, they started gaining significance. Participants were asking why the topic of rural education appears to be "under-developed compared to other areas of educational study." They queried as to whether it is not as developed because it is a difficult area to study or "because there is little interest [in] the topic or limited political motivation to do so." They were echoing Mulcahy's (1996) findings during his investigation into multi-grade classrooms. For many participants, there was a sense that systems administrators behave as if rural education and rural communities get in the way of "progressive educational reform" (participant dialogue, 2006), leaving participants feeling less valued as teachers than their urban counterparts. They used words such as "isolation, inequality, discrimination, problematic, targeted for reform" (extracted from participant dialogue, 2006), and described a sense of disconnect from the rest of the education system, the rest being urban. Participants indicated that they were unprepared for this experience. According to them, the current structure of education is unable to meet the needs of rural schools. They felt that there exists a generalized[5] approach to education that is more suited to

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[5] There is an extant literature that acknowledges universities' attempts to generalize (or make generic) teacher education programs (Brown, Handrigan, Stone, & Downey, 2002; Cochrane-Smith, 2006; Keedy, 2005; to name a few) implying that programs are designed to generalize across various environments of teacher practice and to accommodate all teachers. As Brown, Handrigan, Stone, and Downey (2002) explain with regards to their university, there is no expectation that "the initial teacher preparation program will specifically train teachers for rural schools – the expectation is for a generalist

urban schools than rural. Other countries have similar issues. Studies in teacher education programs in Greece, for example, indicate that, "most teachers who begin their teaching career as newcomer teachers in small rural schools receive the same type of training as those appointed to urban ones, with the initial in-service training applied uniformly" (Saiti, 2009, p.45). Although there are differences between Canadian education and that of Greece, teachers in Saiti's (2009) study, similar to mine, felt that there is a need for more appropriate training in rural school education.

When participants ask why the topic of rural education is underdeveloped in comparison to other areas of research and imply that there may be 'little interest' in the issue and a lack of political motivation to address it, and feel that there is a generic approach to education that is more urban-based, and when these themes are supported by long-standing literature, several queries emerge. Do generalized teacher education programs adequately address the needs of teachers in rural schools? What counts as knowledge in teacher education programs? How are they designed? Who influences them? What counts as research? What can and should count as evidence in research and legitimate knowledge particularly in teacher education? In order to begin an exploration into some of these "meta" questions with a focus on ruralness, this writer begins with some of the tensions which exist in the field of education, exposed through propositions represented in italics. Similar to counterpoint in music[6], these show some of the ongoing challenges in education that may play a role in shaping current teacher education programs.

Urban and Rural Schools

Urban – Rural Tensions

Writers such as Herzog and Pittman (2002) maintain that one of the problems facing rural education is its lack of definition. I have found in my readings that there are ample definitions but that there is an inability to agree on what constitutes rural and, maybe rightly so. As with Thorns' (2002) point regarding cities, rural communities are diverse, complex places with "transformations occurring at every level" (p.1). However, the literature seems to struggle more with defining rurality and distinguishing rural from urban than it does in defining urbanity (Cloke, Marsden, & Mooney, 2006). Yet, as Cloke (2006) points out, despite its lack of definition "the idea of rurality seems to be firmly entrenched in popular discourse about space, place and society in the western world" (p. 18). Since the main focus of this paper is not to distinguish what constitutes rural and urban or to determine the overall proportion of rural populations to urban, suffice it to say that, even though definitions vary, people distinguish between rural and urban places both quantitatively and qualitatively. And, in some cases, as

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program that would be the preparation for entry into any school, urban or rural" (p. 85). However, participants in my study indicated that their program did not prepare them for rural experiences.

[6] Contrapuntal music (derived from *punctus contra punctus* or note against note) is music that is made up of two or more independent parts that play at the same time and tension each other as they weave in and around each other (Birkenshaw-Fleming, 1996). Their independence is tensioned, ironically, by their interdependence on each other to create music by association.

Backman (1990, as cited by Howley, Harmon, & Leopold, 1996) ascertains, distinction between the two "attributes inferiority to rural places" (p. 152) and the superiority of urban areas (Brown & Cromartie, 2003 as cited by Brown & Swanson, 2003, p. 3), creating tensions.

T*he history of American education has been primarily an urban one* (DeYoung, 1987, p. 123) *and Canada has a similar history* (Mulcahy, 1999; Wallin, 2006). As a means of grounding discussions on existing theoretical concepts as to why that may be the case, I draw upon two writers whose work identifies early shifts in the continuum between traditional and contemporary ways of living.

The first is Ferdinand Tonnies (1957) and his idealized concepts of *Gemeinschaft* and *Gesellschaft* or community and society. *Gemeinschaft* is usually understood as community life in pre-industrial settings. It is intimate, private, and exclusive. *Gemeinschaft* is community of kinship, place, and mind. "Kinship comes from the unity of being ...that families and extended families provide…. Place emerges from the sharing of a common ... locale [such as classroom, school, or neighborhood]" (Sergiovanni, 1994, p.6). And, "Gemeinschaft of mind refers to the bonding together of people that results from their mutual binding to a common goal, shared set of values, and shared conception of being" (p.6). Tonnies (1957) maintains that *Gemeinschaft* of mind, in conjunction with [kinship and place] represents the truly human and supreme form of community (p.34). In this kind of community church, school, and family are at the heart; schools serve as a central part of the community; regional differences are important; and the people's sense of place affects schools and shapes community life (Budge, 2006; Stern, 1994). Tonnies (1957) posed the idea of *Gemeinschaft* as a counterpoint to the kind of community that is associated with public life, the new post-industrial rise of the urban city.

Gesellschaft groups think of the legalistic concept of social association and "exist only in so far as they … take their places among the institutions of a political body or as they represent conceptual elements of a theory" (p.34). It is the "large-scale, impersonal, calculative, and contractual relationships" that increasingly gained momentum through industrialization and urbanization at the expense of community (Hillyard, 2007, p.7). Tonnies' (1957) work not only creates an image of what it means to be in community but, in many ways, his work is also a critique of the impact of industrialization upon social relations as they are found in rural and urban environments.

My intent in reviewing Tonnies' work is not to develop a definitive distinction between rural and urban or to valorize rurality. *Gemeinschaft* and *Gesellschaft* are introduced in the spirit of ideal typology neither of which exists in a pure form. I use them to make the points that: (1) rural and urban areas are distinguishable (see Budge, 2006; Hilty, 2002; McSwan, Scott, & Haas, 1995; Miller, 1993), but that (2) their distinguishable features are difficult to define universally or in any definitive way (du Plessis, Beshiri, Bollman, & Clemenson, 2002). And, although it may be argued that distinctions between *Gemsinschaft* and *Gesellschaft* can exist in both rural and urban settings, many writers (i.e. Hillyard, 2007; Mellow, 2005) agree that *Gemeinschaft* is understood as life in community associated with the old, pre-industrial setting for which rural communities are known and that *Gesellschaft* is associated with the rise of the urban city.

Max Weber (1958, 1964) throws further light on this shift. Embedded in his work are descriptions of formalization, instrumentalism and rational–legal authority as contrasted to traditional authority. Formalization refers to the degree to which rules, procedures, regulations, and task assignments exist in written form. Instrumentalism depicts the organization as a tool,

a machine designed to achieve a particular purpose. Rational-legal authority refers to applying the most efficient and rational means to gain an end and is anchored in impersonal, legally established rules that have become characteristic of modernized societies such as those found in Western civilization.

According to Brubaker (1984), Weber recognized that "the reality in which we move is dominated by capitalism" (p. 9) and that the essence of modern capitalism is its rationality. The basis of the new economic order is exchange in the market where the production processes rest on specific institutional foundations: centralized control, separation of the worker from the material means of production, technical knowledge which takes control over the means of production, and the rationalization of law and administration. His theory of rational bureaucracy, similar to *Gesellschaft* is a main ingredient of urbanization and is contrary to what he defines as being traditional societies where one finds that habits and customs dominate similar to *Gemeinschaft*. Although Weber does not reference urban and rural societies respectively as being rational-legal and traditional, it is implied in much of his work. He writes that the "principal forerunners of the modern, specifically Western form of capitalism are to be found in the organized urban communes of Europe with their particular type of relatively rational administration" (Weber, 1964, p.358). And, he acknowledges that modern capitalism originated from specific economic developments such as the introduction of machines, the factory movement, use of technology, displacement of rural peoples from the land (and from the sea), and the creation of rationalized bureaucratic structures.

Both writers observed that urban life is more rational, universalistic, impersonal, and logistically oriented than rural. For both, rural societies are a complex phenomenon, distinct from urban areas. Their explorations into how modern institutions and paradigm shifts[7] have rationalized and changed the world, provide an opportunity for researchers to acquire a defined picture of urban that helps distinguish it from rural. Governments, universities and other such educational agencies are positioned on an urban landscape (Raywid, 1991; Thorns, 2002).

Making Schools Fit

Rural schools are different from urban schools. According to Raywid (1991), "public schools are... *Gesellschaft* institutions" (p.173). They are run by the state, either provincially or nationally, and, as such, are bureaucratic and thus shaped by rational will. As indicated by Bard, Gardener and Weiland (2005), as early as the Industrial Revolution reformers and policy makers believed that schools would benefit from being alike which brought forth a model of education driven by the dominant system and, therefore, perceived by many (Barter, 2008; Smith, 2002; Wallin, 2007) to be urban-based. These schools are rule-oriented with top down decision making, are contract driven, and exist to perform specific functions, marked by secondary associations often found in the business world and in Government.

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[7] Paradigm shift in this context refers to a set of theoretical and methodological beliefs and values - agreed upon understandings subscribed to by those in a profession and existing within a larger ideological context that is scientific, social, and political. In education, shifts in paradigms drive how we organize teacher education programs, what we teach in them, and everything else for which educators/researchers are responsible. (For a more detailed explanation see Owens & Valesky, 2006, pp. 11-15 & 52-56).

However, there is also literature that places schools within the context of *Gemeinschaft* (Barter, 2007; Mellow, 2005; Miller, 1993; Sergiovanni, 1994). Such schools exist in community and are bound together by commitment rather than contract. These commitments are socially organized, founded on shared values and relationships, and nurtured through interdependence. For such a community, there is also significance in people's sense of place (Bauch, 2001; Budge, 2006). These are the kinds of characteristics (descriptors) most often attributed to schools and communities in rural and/or remote areas (Bauch, 2001; Budge, 2006; Miller, 1993; Stern, 1994). They indicate that both human relationships and geography remain significant determiners in defining rural communities and their schools (Hillyard, 2007) that differentiate them from the more urban areas. This notion implies that rural areas have unique qualities such as low populations; small schools; minimal public services and other amenities; reliance on single resource industries; a sense of kinship, place, and mind; and a unique symbiotic relationship between schools and their communities, which make them different from those in urban centers.

The research findings and resulting papers (Barter, 2007, 2008, 2009, 2011) have been written on the assumption that rural schools are different from urban schools. Other writers make similar assumptions. Skwarchuk (2004), for example, found that there were attitudinal differences between teachers in urban schools and those in rural in that rural teachers appeared to be more concerned with circumstances relating to their working environment. Although both urban and rural teachers had concerns over formalized, standardized testing (i.e. criterion reference tests), rural teachers were "more likely to report that the provincial results were a poor measure of teacher ability…and that the testing inhibits differential instruction procedures" (p.268). Urban teachers were more concerned with teaching ethnic- minority students whereas their rural counterparts were more concerned with multi-graded classrooms, their teaching reputation in the community, and how to effectively deliver courses using differentiated instructional techniques (p.271). As another example, Mellow (2005) examined how professionals such as clergy accepted, rejected, and/or modified "generalized norms of professional practice when working in the rural context" (p. 53). She saw a "dynamic interplay" of the *Gemeinschaft* and *Gesellschaft* models in the professional lives of her participants. Hence, professionals in rural communities had to be prepared to adapt work procedures, protocols, and strategies in order to accomplish their ends in rural communities.

The points being made are that, if rural communities are different from urban environments to which teachers-in-training are more accustomed, the differences can pose a challenge to new teachers if they are unprepared. Furthermore, if Canada is a country comprised of urban and rural environments, and if teachers are expected to work in either urban or rural areas, then it stands to reason that both environments be a center of discourse for teacher education programs as well as for teacher education research.

Similarly, depending upon how we determine what counts in teacher education programs, there are challenges for researchers as to what gets valued as knowledge. Participating teachers in my study believed that the knowledge for such research lies within. Practicing teachers are the ones who know how they teach, what they teach, and what they need to deliver curriculum and instruction to students. And, they know that it is often different from what they learned in their teacher education programs and what they receive through in-service. They also believe that since their needs are not visible within such programs their knowledge is not of value, it does not count in teacher education programs or in teacher in-

service. However, according to participants in my study, adaptations from one knowledge space to another have to be made. As Mellow (2005) maintains - "Learning to dance to the rhythms of rural life is essential" (p.68) to providing services.

Teacher Training – Schools – Teacher Work

Defining Schools

Schools are special places (Hodgkinson, 1991), *there is no parallel to schooling in the natural world* (Davies & Guppy, 2006, p.8). Hodgkinson (1991) ascertains that education (schooling) is "one of the most complex [and profound] concepts in the language" (p.15). It is "far more complex than commerce or industry or bureaucracy", rather, it is "something very special in the field of human affairs" (p.15). These writers place education and educators within a context that is different from other service agencies. It is one that conceives teaching and learning as being connected to school climate and organization and draws on parents and community as resources rather than as a service delivery that can be packaged and delivered to its clients. Through this lens, the practice of education is viewed as an art, a moral enterprise imbued with values. As such, educational administration and educational organizations are "about philosophy, human nature, and the quality of life in organizations..." (Hodgkinson, 1991, Preface).

I think of these ideas within the context that Canada, geographically and culturally, like most countries, is made up of urban and rural environments. Saiti (2009), in reference to Greece, ascertains that its geographical nature "pre-determines the presence of one-teacher and two-teacher primary schools, especially in its rural areas" (p.34). Brown and Swanson (2003) state that in the US, "while the 2000 census showed that eight out of every ten Americans live in urban areas, over fifty-six million persons reside in rural communities" (p.1). Coupal (2006), in her work on technology in rural areas, states that "approximately 90% of Canada's estimated population of over 30 million people is located along its southern border and 33% of Canada's population lives in rural areas" (p.1). Such figures indicate two things: (1) the rootedness of rural areas and hence, the notion that rural communities are key components of the education system in Canada as well as elsewhere, and (2) that policy discussions cannot be based on numbers alone to justify rural existence or rural ideology. To do so, is contrary to the common denominators of rurality (du Plessis et al., 2002). From this perspective and for the benefit of the country as a whole, it is important to know about rural areas and embrace them as a source of knowledge for teacher education programs. As participants in my study indicated, there is a need for rural research and a need for systems administrators to understand more clearly the realities of rural education and of small schools.

Teacher Training – Teacher Work

There is a difference between the learning of teachers-in-training and the learning of teachers-at-work. Those enrolled in teacher training are immersed in an urban environment until graduation at which point they begin living out lives as workers in specific communities with histories and cultures of their own. Many of these communities will be rural and/or remote. According to

participants in the study, it is here that teachers learn to rely on their personal practical knowledge[8] and the knowledge of established teachers who have survived the theory-practice gap. In talking about knowledge in everyday life (Grossman, 2009) and personal practical knowledge in the practice of teaching (Connelly & Clandinin, 1988; Elbaz, 1983), there is argument made that these processes involve teaching and learning, and yet, according to Grossman (2009), "in the context of deeply structured social inequalities, which are replicated in hierarchies of knowledge, much of this is devalued, denigrated and thereby wasted" (p. 208). Here lies one of the tensions between teacher training and teacher practice.

Greenfield (Greenfield & Ribbins, 1993) in a critique on the training of educational administrators, points out that the texts frequently used in such programs are heavy on theory but discuss "no substantive issues in the conduct of schools; no words speak of segregation or other common problems arising from culture, language, religion and disagreements over curriculum and evaluation" (p. 43) or, whether teachers are teaching in rural or urban environments. Similarly, Pagano (1991) observes that, of her university's teacher education program, "nearly all of the courses … are highly theoretical …. All of [her] colleagues teach courses that ask students to explore the political, social, and ethical dimensions of schooling from multiple perspectives", but, that "neither that education nor any previous experience of their own is sufficient preparation for the actual" (p. 194) Her examples of actuals include "alienness of students who fall asleep in class, for the actual prejudices often found in rural communities, for the actual problems of poverty and disease and the actual psychological problems that attend these" (p.194). Participants in the research study completed by this writer touched on similar arguments that indicate teachers experience a gap between their learning-in-training and their learning-at-work, especially in small, rural and/or remote schools. Several challenges surfaced in the research, three of which are presented as examples.

The first is the experience of isolation. One participant who had taken a position in a remote community wrote, "while used to life in a tiny place, I was not familiar with life in isolation and did not know anything about Native peoples and culture and the problems they faced."[9] Other participants agreed that they had been unprepared for the isolation. Yet, participants cautioned that, if rural schools are different from urban schools, the differences need to be reflected in teacher education in a positive way, as part of the knowledge required to be a teacher rather than as something that needs to be changed or assimilated into the main stream. They accepted that there would be isolation if one was going to teach in a rural/remote community but that maybe they could be better prepared for the experience.

A second is the need for teachers to teach outside their expertise, a practice that is "becoming more prevalent in smaller rural schools." Specialty areas such as French, music, and the sciences were listed as challenges for rural schools. One of the reasons offered for this is that teachers who come out of teacher education programs with a concentration in one specific subject area will probably find in smaller schools, that there will not be an adequate number of classes to allow them to teach only their specialty. Hence, they can anticipate taking

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[8] That body of convictions and meanings, conscious and unconscious, that have arisen from experience and is expressed in teacher practice (Clandinin & Connelly 1995, p. 7).

[9] This points to the impact of culture – not only might teachers be teaching in rural and remote areas that are different in culture from urban areas, but it may also be in an environment where English is a second language.

on courses beyond their specialty area and needing to adjust to teaching other subjects beyond their field of expertise. One participant wrote:

> I know that my cousin just began her teaching career last year, and she got a position in a small school. She was thoroughly overwhelmed because of the number of courses and grades she had to teach. … She felt very unprepared to deal with this situation. From what I heard, this situation is not uncommon.

According to participants, the degree of proficiency for such teaching varies from being comfortably knowledgeable to only being able to keep one step ahead of the students on a day-to-day basis. These issues become complexly layered when teachers are not only expected to adapt to multiple courses but to do so at more than one grade level while keeping step with other changes (i.e. technology, educational reform) and general expectations such as standardized tests and other forms of external "report cards".

A third challenge that attaches itself to the previous two is that of multi-grading/multi-aging. Teachers not only have to acclimate themselves to the community and teach subjects beyond their area of expertise but have to do so in the context of more than one grade and/or age level in the classroom. These challenges contribute to the heavy work load that rural teachers carry. One participant explained, "the rural school tends to be more diverse [than urban schools] in terms of its configuration. Having to do more with less often entails multi-grading, multi-aging, increasing reliance on distance education, more creative use of time, and more creative ways to acquire and use resources (both human and monetary)."

Participants' discussions of such issues surfaced feelings of marginalization and survival. One, in response to others' comments, explained, "Yet, after being asked to do so many things you spend hours doing it because your conscience won't allow you to ignore….Teachers work load needs to be considered instead of assuming we are all robots or the burn out is going to catch many, which is so unfair" (Participant dialogue, 2006). To add another layer, teachers are expected to attend countless Individual Student Support Plan meetings, " 'embrace' the school development initiatives; become involved in extracurricular activities; attend to [their] professional growth through the enactment of [their] professional growth plans; maintain communication with parents/guardians…." Many of these issues are experienced by teachers in both urban and rural teaching environments, however, they are compounded if teachers have to add other ways of curriculum making such as multi-grading, multi-aging, multi-coursing, assisting with distance education courses, and more often than not, doing so without preparation time.

These are realizations that are learned more from teacher work than teacher training and, have the potential to feed the gap between theory and practice. As one participant so succinctly responded, the "philosophy of education rarely meets practice". And another added, "it's no wonder that some [teachers] want out" and serves to show a possible response to a question prompted by Cochran-Smith (2006): "Are there any variations in teacher preparation associated with teacher retention in hard-to-staff and other schools?" (p.10). It was pointed out by participants in the research that the significance of adequate pre-service training and accommodation of alternate ways of knowing cannot be ignored if systems administrators wish to create a stable teaching environment for new teachers in rural schools. This kind of

discussion invites curriculum theorizing that broadens the scope of what, according to participants and supported by the literature, currently exists.

Research and Knowledge

Through their discussions of issues experienced in rural schools, participants in the study voiced three common themes: (a) what is learned in university does not prepare teachers for working in rural communities; (b) what is learned as teachers in rural communities is not of value as a source of knowledge for those responsible for overseeing the implementation of and preparation for education in schools; and (c) if we want teachers to meet the needs of more Canadians there has to be a shift in the current academic mind-set.

Teacher Education Landscapes

As stated earlier, there has been a long standing notion of centralizing control that advocates for an urban model of education. In recalling the *Gemeinschaft - Gesellschaft* gavotte (Mellows, 2005), I am reminded that even though scholars and statisticians may recognize rural and urban categories as variables rather than discrete categories, there is evidence that "conventional statistical practice privileges urban areas over rural" (Brown & Swanson, 2003, p.3). Through this lens, generalized teacher training, hinges on a unified system of teacher education through *Gesellschaft* institutions. They are situated in urban centers where teachers-in-training contextualise education within a formalised urban system. Participants in the study appeared to be comfortable with this environment during teacher training but experienced a gap once they entered the work force, especially if their work was in more rural and/or remote communities. Their comments of not being prepared for what they encountered reflect the findings of Gibson's (1994) work that indicated teachers newly hired to rural communities in Australia showed a lack of preparedness for the work they were expected to do (p.68). Seventeen years after Gibson's work, and the work of others already referenced, participants in my study continue to maintain that professional and social differences associated with teaching in rural contexts are not being adequately addressed in teacher education programs. They learn to become peripheral teachers. As one participant pointed out, "The small school concept is constantly under siege from those who advocate a one-best system and who assume that improving rural schools means to make them more like urban schools." This forces the kind of questions that university instructors and program designers might need to be asking:

- Is ruralness reflected in teacher education programs in an equitable[10] way?
- Are rural teachers as valued as urban teachers?
- Is there a positive value placed on rural communities, rural education and rural schooling?
- If there is, what is it and why aren't rural teachers aware of it?

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[10] In a way that places it at the centre rather than at the periphery of indifference?

One participant ascertained "Not only does institutionalization preserve and perpetuate the will or feelings of the majority and best represent the majority, it marginalizes 'others', in this case, 'rural' schools." And, based on participant accounts from the research study and the literature, the concept of rural curriculum theorizing is yet to be defined - at least it has not been made visible to pre-service and in-service teachers.

This kind of thinking makes me question whether, indeed, the issue is one of insensitivity as described by some participants, or if it is a lack of understanding and knowledge about rural education issues which is recognized and felt by rural teachers but not felt by others or is felt but disregarded. Many of us responsible for teacher education programs do not live in rural areas or experience rural models. We function within more *Gesellschaft* environments, regimented by urban structures that, by their very nature, are more technical rational. This is not to imply that teacher education programs are deliberate attempts of maintaining an urban mind-set but rather to point out what might be an inherent bias created, at least in part, by context and what counts as knowledge. Weenie (2008) advises that, "as part of curricular theorizing, it is important to address the way we view curriculum and to acknowledge our vantage points, in terms of the biases and assumptions and the interpretive lens" (p. 550) we bring.

This is of significance in that, as Saiti (2009) points out, "many educational researchers have identified teacher training as the most critical factor in teacher education in order for an educational system to serve and secure school improvement" (p.34), and that many countries, if not most, face challenges in dealing with rural teaching training. Part of addressing that challenge may rest with the knowledge of practicing teachers. Participants in the study believed that their understandings of rural schools were not acquired while enrolled in their teacher education program, rather were learned through practice. And, although they recognized that it might be a challenge for universities to cover everything that might need to be known for teaching in rural communities, they believed there are things that can be included in teacher education programs that could be of benefit to all teachers. These include courses in the sociology of rural studies, courses in multi-grade/multi-age teaching, pre-service internships into rural schools in lieu of course work, and taking seriously the narratives of teacher practice.

Some universities have begun addressing these needs through projects as seen at the University of Victoria's East Kootney Elementary Teachers Education Program (Storey, 1992); mentoring at the Chinook's Edge School Division in Alberta (Goddard & Habermann, 2001); rural internship at Memorial University, in Newfoundland and Labrador (Goodnough & Mulcahy, 2011). These present themselves as possible options for the beginning of an ideological shift in what counts as evidence in teacher education programs. Saiti (2009) maintains that universities have a "substantial degree of control of the range of skills, the knowledge and the attributes of a good teacher" (p.52) and that:

> In order for the pedagogical university departments to ensure the effectiveness of teachers' work and to bridge the gap between theory and practice, more careful consideration and standing of the teachers' real needs is needed (i.e. with greater acknowledgement and understanding) if they are to be prepared sufficiently for the teaching profession. (p. 52)

Although these issues are not limited to rural education, they may be amplified under the added conditions of rurality.

Evidence and Legitimate Knowledge

> Even from the centre
> Where a song of 360° can be sung
> Where for half the planet a dawn is beckoning
> Precisely at the moment
> The other surrenders to a setting sun
>
> Even here
> At an axis from which much can be see and shown
> There co-exists a different song, a slower dance
> Perhaps even in reverse
> Holding the secret to myriad perspectives
> From which we have yet to converse
>   (Ndlovu, 2009, p. vii)

For participants in the research study, there were two kinds of knowledge, that which is learned in university and that which is learned in the classroom. University knowledge is science based derived, for the most part from research guided by hypotheses that are checked empirically against observations about reality (Kerlinger, 1986). This development of knowledge is completed through a systematically controlled process and is then opened to others for critical analysis. Writing in the field of education, Hoy and Miskel (2008) argue that "well conceived surveys and ethnographic studies for the express purpose of developing hypotheses are at times useful starting points in terms of hypothesis and theory development" but that "ultimately, ... knowledge in any discipline is expanded by research that is guided by hypotheses that are derived from theory" (p.5). For them, "the scientific approach is the very embodiment of rational inquiry" regardless as to whether the focus is theory analysis and development, research investigation, decision making, or problem solving at the personal level. And, as Cochran-Smith (2006) points out, "teacher education's preoccupation with evidence is consistent with the way the standards movement has evolved…" (p.6).

Other writers (Greenfield,1993; Hodgkinson, 1978), although not disregarding such knowledge, express concern that this might be the only kind of evidence that is deemed valid, especially by the education world. Greenfield (1993), for example, maintains that many of the texts selected for programmes used to certify educational administrators overwhelmingly emphasize "theory and explanation" without "critical attention to research" (p.42). In the texts he reviewed he ascertained that, "research [was] invariably used to support and confirm the theories presented" (p.42). The aim of these texts says Greenfield, is to present "an ordered and explainable picture" (p.42) of educational organizations. The problem he notes is that to accept this research as the only valid form makes invisible research-validated theories that might show contrary methodological and conceptual problems as seen. Greenfield's (1993) argument relates to teacher education programs in that, based on what I have discussed to this point, such programs are generalized to the exclusion of rural theories.

Although Greenfield's work is brief and, in his words, "an unscientific sample" (p.42), it serves as a reminder of the recurring difficulties in the field of education especially as it pertains to what counts as knowledge and whose knowledge is to be recognized. And, although there are texts which address the more practical forms of knowledge found in the practice of teaching (Connelly & Clandinin, 1988; Elbaz, 1983; Witherell & Noddings, 1991) there is also a realization that, for the most part, teacher education programs are generalized based on the understandings of urban epistemology and pedagogy. This discussion brings the reader full circle: evidence is research when something is done with it, what counts as research - counts as knowledge, what counts as knowledge – makes it credible – that which is made credible determines policy and programs.

I am reminded of Hoy and Miskel's (2008) caution to educators that although theory is directly related to practice, "the scientific approach is the very embodiment of rational inquiry" (p.7). Such an inquiry relies on methods and principles that produce credible and verifiable results. This is the kind of stuff teacher education programs are built from, "consciously elaborated concepts of science" (Cooper, 2005, p. 57) that verify what makes a good school. It is generally left to those in institutions responsible for training programs to determine and authorize what knowledge counts in creating good schools. Since, as Grossman (2009) explains, "'research' is the authorized embodiment of new knowledge" (p.214), one can assume that anything outside of these conventions will either create frictions (similar to contrapuntal music) in seeking equal position on the knowledge landscape or be relegated to a lesser status and set at the periphery of knowledge. Practicing rural teachers in the research study felt that they were positioned at the periphery of the professional teaching landscape. Similar to the literature, they argued for more research in the area of rural education, not research that reforms but, research that values the positives of rural schooling and skills of rural teachers. What this says to me as researcher is that rural teachers and their schools need to be included in the typography of curriculum theorizing.

Summary

These debates on what teacher education programs should look like, who they should represent, and what counts as knowledge in society are important both to us as instructors/researchers at universities and to the society in which we live. Universities have become central knowledge bases for society. They contribute new knowledge or validate and/or protect existing knowledge. They play a major role in the dissemination of knowledge as well as in how and what decisions are made in society. It is not surprising that, in taking stock of educational research, Cochran-Smith (2006) wrote, "evidence – or at least talk about evidence – is now everywhere in teacher education research, policy, and practice" (p.6). She goes on to say that, although the focus on evidence "has great potential to improve teacher education, it also has troubling aspects that need to be acknowledged and debated" (p.6). One of those aspects is found in the warnings of writers such as Greenfield (1993) and Pagano (1991) that the evidence may be too narrow, focused mainly on what is deemed to be "scientific research" and set within generalized programs that, according to the research seem to be better fitted for an urban context. These writers argue for a broader scope of empirical research such as that which explores the theory of practice that is open to alternate

epistemological and pedagogical ways of knowing. They signal a need for universities to look outward to the work of those who require alternate approaches. If, as Connelly and Clandinin (1988) and others (Barter, 2008; Duckworth, 1986; Elbaz, 1983) maintain, teachers are makers and holders of knowledge, it may be of great benefit for all educators to find out what it is that teachers in rural and small schools know. From this perspective, practice understood in the context of rural settings and demands, is interpreted as a form of evidence.

My argument on the significance of teacher knowledge rests on the premise that there is a difference in knowledge between students training to be new teachers and practicing teachers who have experience in the field. As Pagano (1991) points out, teaching is a "discursive and interpretive practice". Those who experience it learn by doing and sharing with others. Sharing, according to Witherell and Noddings (1991), is "central to the kind of work that those in the teaching and helping professions do" (p.2). It is embedded in the teaching-learning process and is heightened to the point of inquiry through practice. As Duckworth (1986) points out, "it is only because [a teacher] knows how to do her [or his] job as a practitioner that she [or he] is in a position to pursue her [or his] job as a practitioner researcher" (p.490). From this point of view it is argued that teachers are grounded in the concrete, empirical realities of their communities and, therefore, have knowledge from which to contribute to theoretical and pedagogical discussions on rural education.

Such thinking challenges universities and teacher education programs to be more inclusive with respect to the broader Canadian landscape – inclusive with respect to whom they admit and in what is taught. Chambers (1999) points out that, as Canadians, we fail to recognize our own literature, land and history, our uniqueness even though we are living in the midst of it. There is an abundance of literature to argue that today's world focuses on urban areas to the detriment of their rural counter-parts even though all countries are composed of both. As noted earlier, participants in the research study pointed out that there is an extant literature on rural education but that much of it substantiates the need "to fix" rural education in order to bring it in line with standardized forms more closely aligned with urban models. They argued that what is required is research that supports rather than denigrates rural education, its students and teachers, and studies the impact systems policy implementation and teacher training has on those working in rural schools. The literature shows that these have been long-standing issues that call for research and development.

What may be required is a knowledge base shift within universities that is inclusive of its peoples. The inclusion of rural educators' own accounts of their experiences in rural schools provides opportunity to expand the complex phenomenon of teaching and learning that is inclusive of a wider Canadian landscape. As university instructors and researchers, we have to ask ourselves if it is possible to teach teachers-in-training about working in isolation; to teach them about teaching multiple grades, teaching without preparation time, working as a part of small staffs; teaching multiple courses, and teaching in communities where English is a second language but treated by those at the systems level as if it is the first. With these kinds of issues surfacing from the narratives of rural teachers, questions emerge: Why is it that the research community does not seem to recognize a need to study rural contexts? What does it take to justify a particular focus on preparation for rural teaching? Can we, as researchers, for example, determine what proportion of rural to urban is required to justify such a focus? And, should we? With every Canadian province and territory having rural and/or remote communities, why is it that there is very little attempt to explore alternate forms of training that acknowledge a

more holistic Canadian landscape? Why is it that we seem to ignore the gap between teacher education training and the embedded stories that are already being lived out in schools? And further more: Is there a specialized knowledge that rural teachers require that might be different from that offered in existing teacher education programs? Why is it that rural teachers differentiate themselves from urban teachers? What are the needs of rural teachers? These and other questions asked throughout the chapter are "meta" questions that invite further research and shared discourse.

I have made little attempt to answer these questions as much as I query over them. To provide answers in lieu of working with rural teachers, in my mind, demonstrates one of the issues participants indicated – they are on the periphery partly because they do not have the numbers to warrant study, to justify their existence, or to give them voice. The numbers, often used to compare rural schools to urban ones, get used as rational for teacher layoffs, school closures, and school consolidations often making rural schools and the work done in them, invisible. As indicated in the writings of others (Chambers, 1999; Grossman, 2009; Mulcahy, 1996; Pagano, 1991), if this invisibility is indeed the case, the research community could be serving to further alienate rural contexts by choosing to ignore them.

Based on the literature and participant discussions in the research study, it is my view that it is difficult to discuss research and knowledge without understanding the complex ways in which the pursuit of knowledge is deeply embedded in the multi layers of urban and rural practices. This chapter responds to the findings of the writer's research study among rural educators, of an urgent need for rural relevance, revised rural theorizing, and enriched teacher education programs that feature rural interests. It is a call for more research framed in the context of rural models and values. Both demonstrate that the issue of rural education and rural life in general, is under-developed in scholarship, that there are alternate knowings embedded in the lives of practicing rural teachers and, as instructors/researchers, we need to study our way in. And, if it is under-developed, and if we are open to it, we stand to expand what counts as evidence in research and the body of knowledge that represent "the order of things in the worlds we live and work in" (Weenie, 2008, p. 552).

In one of my conversations with an Aboriginal teacher I was told a story of how many Aboriginals feel about the Canadian landscape. She used the metaphor of "knowing as a bridge" to complete the point she was making. This is my recollection of her metaphor: Canada is divided by a bridge. On one side of the bridge are Aboriginals, on the other side is the rest of Canada. In order for Aboriginal peoples to be accepted (be of worth) as part of the Canadian landscape, they have to cross over the bridge leaving themselves behind. They feel as if they have to become part of the unified system. It is a one-way bridge leaving no room for reciprocation. Reciprocity, for me, implies having a two-way bridge being crossed back and forth by all Canadians. In a similar fashion, according to participant narratives, the existing bridge for teacher education programs is one-way. If there is to be value placed on ruralness as part of the Canadian landscape, its crossing (what counts as evidence and where that evidence comes from) needs to be reciprocal. As Ndlovu (2009, p. vii) so poetically writes:

> And if our song lengthens
> If we deepen our dance
> There's a chance
> We can penetrate the surface of assumptions

Scatter the shadows of doubt and cynicism
Hanging in our skies
Expanding our viewpoints
Our definitions
Liberating a vertical and horizontal mind's eye

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Chapter 3

The Promise of Self-Study Methodology for Canadian Teacher Education Program Review

SHAWN MICHAEL BULLOCK & TOM RUSSELL

This chapter argues that perspectives of individual teacher educators gained through self-study of teacher education practices can provide meaningful evidence used in any review of Canadian teacher education programs. The concepts of single-loop and double-loop learning are introduced to emphasize that reviews need to go beyond surface-level review of practices to examine the underlying values and assumptions. Transformative learning theory and cognitive dissonance are introduced to emphasize both the importance and the challenges of examining prior assumptions and gaps between beliefs and actions. Three examples using the methodology associated with the self-study of teacher education practices are provided to illustrate how the perspective of double-loop learning can generate important research-based evidence to inform the review of teacher education programs.

One of the challenges of teacher education program review is summarized by Heap (2007, p. 2): "As professional schools, Faculties of Education are Janus-faced organizations oriented to the academy, with its disciplines and standards, and to the field of education, primarily K-12 public education, with its multiple stakeholders, professional organizations and provincial regulations." Program review and the associated question of evidence must take into account the standards of evidence of the academy, the provincial Ministry of Education and, in the case of two provinces, the professional governing body. If teacher education programs are framed as teacher *preparation*, then evidence needs to be gathered about the quality of the learning experiences new teachers are able to create for their students. Problematically:

> Studies comparing the effectiveness of various kinds of traditional and alternative teacher education programs . . . in relation to a variety of outcomes generally provide conflicting findings about the efficacy of different forms of teacher preparation and do not enable us to identify the specific program features that are related to the achievement of particular outcomes. (Cochran-Smith & Zeichner, 2005, p. 29)

We suggest that one way to mitigate the issues and challenges of relating teacher education research to policy and program decisions is to encourage teacher educators to systematically study their own practices and disseminate the results of their self-studies through

publications and sharing with colleagues. Although it is important and desirable to seek input from current and former teacher candidates, associate teachers, and partner schools, the voice of the teacher educator must not be minimized or lost in the dialogues associated with review. Tenured and tenure-track professors in Faculties of Education are usually involved in teacher education programs far longer than many of the other participants in program review. Sessional instructors may be retired teachers whose involvement in teacher education is limited. When it comes to the question of evidence in teacher education program review, teacher educators, particularly those with long-term commitments to their institutions, have an essential voice at the table and should contribute evidence to the review process.

Periodic reviews of teacher education programs often include an internal analysis of items such as curricular materials, vision statements, exemplary student assignments, and responses from students on end-of-course questionnaires. The overall structure of the program may also be reviewed, perhaps during lengthy meetings and discussions, and graduates may be surveyed. These activities are sometimes grouped together as a self-study of the teacher education *program*. In this paper we argue that any self-study conducted in the context of a program review should engage deeply with the research methodology of self-study of teacher education *practices*. The teacher education classroom is a critical place to collect data about program quality. In a retrospective look at his 30 years in teacher education, Zeichner (2003) argued that the responsibilities of teacher education need to be taken more seriously in the academy, both by faculty members and by graduate students who find themselves charged with responsibilities to teach preservice teachers. As Zeichner noted, "there is often little or no professional development provided to help [teacher educators] learn how to continually improve their work with novice teachers" (p. 335). As this paper illustrates, self-study of teacher education practices, with its emphasis on exploring the problematic via critical friendship and scholarly output, offers both a promising venue for professional development and a way to offer warranted, research-based suggestions for policy and program decisions.

The Historical Problem of Evidence in Teacher Education Program Review

Cochran-Smith (2001, pp. 528-529) organized the questions driving teacher education review and reform over the past 50 years into three categories:

1. Attributes Questions: "What are the attributes and qualities of good teachers, prospective teachers, and/or teacher education programs?"
2. Effectiveness Questions: "What teaching strategies and processes are used by the most effective teachers, and what teacher education processes are most effective in ensuring that prospective teachers learn these strategies?"
3. Knowledge Questions: "What should teachers know and be able to do? What is the knowledge base of teacher education?"

While fully acknowledging that none of these questions has been answered satisfactorily, Cochran-Smith (2001) goes on to point out that a new set of questions, those pertaining to outcomes in teacher education, were added to the mix in the early part of this decade.

Questions such as "What should the outcomes of teacher education be for teacher learning, professional practice, and student learning?" and "How, by whom, and for what purposes should these outcomes be documented, demonstrated, and/or measured?" (Cochran-Smith, 2001, p. 530) are common.

Connecting the array of experiences in a teacher education program to specific outcomes for the development of professional knowledge and its eventual impact on the quality of K-12 students' learning is challenging, at best, and a losing proposition, at worst. Cochran-Smith (2001, p. 540) framed the problem in the following way: "Input-output metaphors carry with them images of factories and production lines and suggest a linear view of the relationship of teaching and learning for both K-12 students and for teacher candidates." Darling-Hammond (2006, pp. 38-40) referred to this issue as the "problem of complexity" in teacher education. Earlier still, Lortie (1975, p. 62) made the case that the lengthy "apprenticeship of observation" prevents would-be teachers from learning to see teaching in a "means-ends frame" because they have not had access to teachers' pedagogical thinking. Those learning to teach have witnessed teaching without framing it as a problematic profession, particularly because teaching looks easy, and good teaching looks even easier.

Our own work using lesson study (Stepanek, Appel, Leong, Mangan, & Mitchell, 2007) as a pedagogical intervention early in a methods course highlighted the difficulty teacher candidates have in separating particular teaching strategies from the effects those strategies might have on their own learning (Russell & Bullock, 2010). Candidates' difficulties seemed to increase when we asked that they think about broad issues in teaching and learning; their natural tendency was to correct one another with suggestions to improve surface-level (although important) teacher behaviours, such as voice projection and the technique used for eliciting responses to a question posed to the class. Candidates also followed the cultural convention of making a positive comment, followed by a piece of constructive criticism, followed by another positive comment (the "good news-bad news-good news sandwich"). It was at this point that we realized that we had to focus on the most fundamental level, finding ways to teach candidates how to learn about teaching.

When faced with a complex problem, it can be much simpler to focus on individual trees instead of the forest. The example from our work with lesson study in a preservice teacher education classroom reminds us of how tempting it is to suggest solutions to problems that are easily framed and noticeable, instead of engaging with the more cognitively challenging work of framing problems that are not immediately apparent. We believe the same phenomenon underlies much discussion around teacher education program review processes. For example, it can be tempting in program review meetings to focus on issues such as timetabling, the number of assignments allowed for course credit, the dates and duration of the practicum, and revising course descriptions. Our intention here is not to belittle these issues, which are certainly important and merit discussion. Our intention is to call attention to the risk associated with devoting all of our time to these types of problems without engaging in the more complex and contentious work of framing the big-picture issues affecting the program as a whole and the challenging questions familiar to teacher educators across the country.

Surface-Level Issues vs. Deeper, Big-Picture Issues
in Program Review

One helpful way to understand the difference between thinking about surface-level problems and thinking about more fundamental, big-picture problems is captured in Argyris and Schön's (1974) distinction between single-loop and double-loop learning. The classic, oft-cited analogy for illustrating single-loop learning is that of a thermostat that switches on whenever the temperature dips below a specified value. The thermostat responds to a simple problem with a straightforward solution. This kind of technical problem-solving is characteristic of much human behaviour; single-loop learning "represents the most satisfactory solution people can find consistent with their governing values or variables, such as achieving a purpose as others define it, winning, suppressing negative feelings, and emphasizing rationality" (Argyris, 1976a, p. 367).

Double-loop learning is much less common because it involves stepping back from the immediately obvious way of framing a problem and asking big-picture questions about the various contexts and elements that created the problem in the first place. To continue the previous analogy, a home control system that responds to a change in temperature by displaying a list of ways to improve insulation in the home (e.g., by installing new windows) could be considered an example of double-loop learning. Individuals "who do not engage in double-loop learning are not able to reexamine their values and assumptions in order to design and implement a quality of life not constrained by the status quo" (Argyris, 1976b, p. 638). Put another way, double-loop learning is difficult because it involves challenging one's prior assumptions and one's reasons for wanting to solve a problem in a particular way. Double-loop learning challenges "the cognitive rules or reasoning [that people] use to design and implement their actions" (Argyris, 1991, pp. 4-5).

Although meaningful and sustainable reform is unlikely without double-loop learning, single-loop learning appears to be the cultural norm and the dominant form of problem solving in organizations (Argyris 1976a, 1976b, 1991). This is not surprising, considering that it is certainly simpler to come up with solutions to issues as they arise than to look at the broad, contextual factors and assumptions underpinning the reasons behind framing the problem in a particular way. One relevant example from teacher education is the question of the duration of field experiences. Given that candidates frequently name the field experience (or practicum) as the source of the most significant learning during their preservice teacher education program (while frequently questioning the relevance of coursework), it is little wonder that a single loop response to the issue would be to increase the number of days spent on practicum. The more difficult, double-loop response would be to think critically about the reason for and place of the practicum in the teacher education program. Questions such as "Is more practicum time likely to produce higher-quality learning?", "Does productive learning about teaching only occur during the practicum?" and "What does teacher candidates' enthusiasm for practicum learning say about the content of the on-campus courses?" are far more difficult to pursue, particularly within the context of program reform. Questions associated with double-loop learning are clearly more time consuming than the more pragmatic questions associated with single-loop learning. Other than time constraints, why is it that discourse in organizations is dominated by questions associated with single loop learning?

Single-Loop Learning and Defensive Reasoning

Argyris believed that people, particularly well-educated people, are more likely to engage in single-loop learning because they have been successful with these approaches for much of their careers. Single-loop approaches also tend to yield faster results and give the immediate sense of accomplishment associated with solving a problem. As Argyris (1991, p. 4) explained:

> Highly skilled professionals are frequently very good at single-loop learning. After all, they have spent much of their lives acquiring academic credentials, mastering one or a number of intellectual disciplines, and applying those disciplines to solve real-world problems. But ironically, this very fact helps explain why professionals are often so bad at double-loop learning . . . . Whenever their single-loop learning strategies go wrong, they become defensive, screen out criticism, and put the "blame" on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it the most.

Thus professionals can be seen as possessing a body of knowledge that constrains their future learning. They have a difficult time thinking outside the box. They rarely fail and know little about how to learn from failure. When challenged, they may become defensive and tend to focus attention away from their own behaviour to that of others. Argyris calls this *defensive reasoning*.

Argyris (1991, p. 7) stated that "everyone develops a *theory of action* – a set of rules that individuals use to design and implement their own behaviors as well as to understand the behavior of others." However, people do not usually follow their stated action theories. The way they really behave can be called their *theory in use*. The governing principles underlying a theory in use are usually the following:

1. To remain in unilateral control.
2. To maximize "winning" and minimize "losing."
3. To suppress negative feelings.
4. To be as "rational" as possible – by which people mean defining clear objectives and evaluating their behaviour in terms of whether or not they have achieved them.
(Argyris, 1991, p. 8)

This typical theory in use makes learning impossible. The first principle – remaining in control – is particularly unhelpful for learning because it "influences the leader, others, and the environment in that it tends to produce defensiveness and closedness, because unilateral control does not tend to produce valid feedback" (Argyris, 1976b, p. 368). Moving from single-loop to double-loop learning requires sharing intellectual control between decision makers and "anyone who is relevant in deciding or implementing the action, in the definition of the task, or the control over the environment" (Argyris, 1976b, p. 369). However, people can be taught to "identify the inconsistencies between their espoused and actual theories of action" (Argyris, 1991, p. 11) (e.g., their *theory of action* and *theory in use*) by using the same strategies that both effective organizations and effective researchers use: collect valid data, analyze it and constantly test the inferences drawn from the data. Organizations can help by

starting with top-down change. Top-level managers must first learn to change their defensive behaviour.

Habits of Mind and Points of View

Defensive behaviour occurs when deeply-rooted assumptions about the world are challenged. In an outline of transformative learning theory, Mezirow defines the concept of an individual frame of reference, which he sees as composed of both a habit of mind and a point of view. Habits of mind, which are highly resistant to change, are "broad, abstract, orienting, habitual ways of thinking, feeling, and acting influenced by a set of assumptions" (Mezirow, 1996, p. 6). Points of view develop from habits of mind and are somewhat more malleable, defined as "the constellation of belief, value judgment, attitude and feeling that shapes a particular interpretation" (Mezirow, 1996, p. 6). Although it might be relatively common for a professional to change a point of view, at least on a surface level, it seems less likely that habits of mind change as a result of single-loop learning behaviours.

Cognitive Dissonance

Regardless of whether we frame change as double-loop learning or as difficulty changing a frame of reference, the tendency to resist both change and views that challenge our prior assumptions runs deep. Tavris and Aronson (2008) argue that this resistance is due to cognitive dissonance, which occurs when a belief that one holds is challenged by contrary evidence. This challenge results in discomfort, which the individual immediately seeks to minimize by finding other evidence confirming the original assumption or, more simply, finding a way to rationalize current beliefs in light of evidence for an opposing point of view. One classic example of cognitive dissonance is the smoker who rationalizes his or her behaviour by citing the amount of time he or she spends exercising at the gym. The rationale is that the negative and well-known health effects of smoking are mitigated by the positive and equally well-known effects that regular exercise has on health. The smoker has found a way to justify his or her behaviour and reduce cognitive dissonance, regardless of the fault that others might find in such reasoning.

   To summarize, single-loop learning is far more prevalent than double-loop learning because highly educated professionals have a history of success with the single-loop approach. When faced with a problem, it is easier to deal with (and solve) the external factors contributing to the problem than it is to look at internal factors and assumptions that created the environment in which the problem occurs. Double-loop learning requires a willingness to relinquish control and to challenge prior assumptions that compose our core beliefs. It also requires a willingness to examine the differences between one's theory of action and one's theory in use. Self-study methodology offers a series of promising approaches both to challenging prior assumptions and to exploring the difference between theories of action and theories of use.

Self-Study of Teacher Education Practices

In everyday language the term *self-study* might conjure up images of solitary reflection on practice. Perhaps the goal of the reflection is to think about what went well; perhaps the self-study began with the goal of self-improvement. It is this everyday definition of self-study that, in our opinion, drives self-study of the teacher education *program* in the context of a program review. Faculty members think about what they do in their courses, both what works and what could work better, and use their preliminary analysis of their practice as an initial catalyst for thinking about the program as a whole. Program review is a fact of life for any program at any university. The purpose of program review at the university level is to achieve the improvements that any organization seeks to attain. As Heap (2007) pointed out, Faculties of Education are somewhat unique within the university because they (like medicine) also must undergo program review from an external professional organization. In Ontario, for example, teacher education programs are accredited under Regulation 347/02 of the Ontario College of Teachers' act.

The structure of program review, both for a university and for an external professional organization such as the Ontario College of Teachers, lends itself to single-loop learning. In the case of self-study of a teacher education program, the question of evidence is often boiled down to a problem of searching for documentation in the form of course profiles, artefacts produced by teacher candidates during coursework, minutes of program meetings, anonymously completed course and end-of-program surveys, and perhaps interviews with teacher educators and candidates in the teacher education program. If problems are identified in the review, then there is often a relatively short window of time in which to act. The simplest approach is to enact solutions that take care of surface-level issues, for the purposes of both receiving accreditation and finding ways to deal with problems identified by the self-study group. For example, if a teacher education program was criticized for not providing enough instruction in working with students who speak English as a second language, a single-loop approach to the problem would be to create a new course with a curriculum designed to explicitly address the identified gaps. When the B.Ed. program at Queen's University was last reviewed by the Ontario College of Teachers, four topics were cited as requiring more attention. The solution chosen was to replace an elective with a compulsory course with four short modules, taught in the auditorium to groups of 350 candidates. This solution persists despite extensive evidence that the large-lecture approach is inappropriate and poorly received. Because each module is less than 10 hours, no evaluation data can be collected. Like other highly educated professionals, academics excel at this single-loop approach to problem solving. If solutions to issues that arise in teacher education programs remain at the level of single-loop learning, then we should not be surprised that teacher education programs are frequently criticized for lacking coherence. Single-loop learning does not encourage people to challenge the status quo or ask difficult questions about the structure of a program.

We argue that self-study of a teacher education *program*, particularly in the context of review, is unlikely to produce evidence of double-loop learning. In fact, self-study of a teacher education program might have an inherent conservative bias because the goal is often to demonstrate the ways in which particular externally-imposed competencies are being met by various facets of the program. Those who participate in the review are likely to focus on describing *theories of action*, which they can often do quite well, because of a top-down

imperative to ensure the evidence presented in program review meets the requirements for internal and external re-certification. On the other hand, self-study of teacher education *practices* offers promise for explorations at the level of double-loop learning, and these tend to be missing from program review. There are important differences between self-study of a program and self-study of personal practice: the former is a collection of methods aimed at providing evidence of meeting externally imposed expectations, while the latter is a coherent methodology that provides a warrant for evidence of reframed practice in teacher education. We believe that self-study of teacher education practices (S-STEP) provides a methodology that has the explicit goal of challenging the degree to which espoused *theories of action* align with tacit *theories in use.*

A major component of self-study of teacher education practices is the willingness to have one's prior assumptions challenged both by critical friends and the broader educational research community. Self-study requires teacher educators to be publicly vulnerable, "where vulnerability presents a genuine danger, but it is recognized as a part of learning, which also involves unlearning" (Bullough & Pinnegar, 2004, p. 340). Self-study of teacher education practices is a methodology that borrows from and combines many difference research methods, such as the traditions of narrative research, autoethnography, action research, practitioner research, teacher research, and quantitative research. Despite the variety of methods employed by self-study researchers, there are some common features of self-study methodology:

1. Self-study research tends to be *self-initiated* based on a particular concern, or area of interest, in one's own practice.
2. The *self* in self-study is quite misleading, since a significant percentage of self-studies are collaborative and many self-study researchers make use of Costa and Kallick's (1993) notion of "critical friendship."
3. Self-study involves making the private world of practice public, and thus accessible to critique and review from peers.
4. An important question in self-study research is "How do I understand my practice differently?" as a result of engaging in self-study.

In the introductory chapter to the *International Handbook of Self-Study of Teaching and Teacher Education Practices*, Loughran (2004) states:

> Despite the development, refinement and clarification that has occurred through S-STEP it is clear that the 'one true way,' the template for a self-study method, has not emerged. Rather self-study tends to be methodologically framed through the question/issue/concern under consideration so that it invokes the use of a method(s) that is most appropriate for uncovering evidence in accord with the purpose/intent of the study. (p. 17)

Loughran (2004) goes on to name seven factors that influence the nature of self-study research:

1. "Self-study defines the focus of study, not the way the study is carried out." (p. 18)
2. "Seeking alternate perspectives." (p. 19)
3. "Self-confidence and vulnerability." (p. 23)
4. "The outcomes of self-study demand immediate action." (p. 24)
5. "There are differences between self-study and reflection on practice." (p. 25)
6. "Dilemmas, tensions, and disappointments tend to dominate data gathering in self-study." (p. 26)
7. "The importance of the audience in shaping the nature of self-study reports." (p. 27)

Taken together, these factors point to several ways in which S-STEP methodology supports double-loop learning. In particular, factors 2 and 6 highlight the importance of sharing intellectual control over a situation and moving beyond ideas such as winning and losing in problem-solving. Opening up one's practice to self-study methodology can result in a principled approach to evidence about how to teach teachers. As the faculty at Mills College note in a book outlining their principles of practice, principles developed from self-study of teacher education practices are dynamic, providing lenses that reveal assumptions, suggest future directions, and encourage debate (Kroll et al., 2004). We now turn to three examples from the literature that demonstrate double-loop learning that occurred as a result of self-study methodology and led to the development of principles of practice.

Example 1: Developing a Personal Pedagogy of Teacher Education

Berry's (2007) self-study of her teacher education practices describes many of the tensions that she experienced while developing her personal pedagogy of teacher education. She describes the initial and familiar story of a sudden transition from a successful high school biology teacher to a teacher educator with little idea of how to teach preservice teachers effectively. Berry (p.118) articulates her initial problem of practice in the following way:

> I could not conceive of anything beyond "showing and telling" (Myers, 2002) what I knew about teaching and biology that these new teachers might learn and reproduce in their teaching. After several years of this pedagogy-of-presentation approach, I began to recognize that the model of learning I was using was ineffective. I was not able simply to transfer my ideas and experiences into the minds of prospective teachers and expect them to enact my approach in their own practice.

If Berry had framed this problem as a single-loop learning opportunity, she would probably have focused solely on finding a collection of best practices designed to help teacher candidates learn about teaching biology. The way Berry framed the problem represents double-loop learning because she is willing to question her taken-for-granted assumptions about teaching teachers. Note that double-loop learning does not negate the use of single-loop learning, but it does expand the possible outcomes to include a fundamental conceptual shift in understanding related to the problem at hand. Through a rich array of data sources, Berry used self-study methodology to frame and reframe her understanding of a variety of pedagogical approaches to teaching teachers. She names several tensions in her data, including the tension between a teacher educator's *action* and *intent*, which is "experienced by teacher educators as they move away from the confidence of established approaches to teaching to

explore new, more uncertain approaches to teacher education" (p. 118). At the conclusion of the study, Berry articulates the results of her double-loop learning with the following principle:

> I have been able to reframe my knowledge of practice as tensions to be managed.
> This act assists in formalizing the teacher educator experience and, in the process,
> provides a language for articulating and sharing more fine-grained understandings
> of the problematic nature of teacher education practices. (Berry, 2007, p. 132)

The result of Berry's self-study is a reframed understanding of teaching preservice teachers that is supported by considerable evidence obtained from rigorous analysis of practice.

Example 2: Developing an Inquiry Stance to Constructing Professional Knowledge

Kroll's (2005) article explores the problem of finding ways to support teacher candidates in the development of an inquiry stance toward the construction of professional knowledge. Her study is a good example of how previous double-loop learning approaches to problems of practice led to new questions that examined broad assumptions underlying the teacher education program. Citing previous work that investigated the characteristics of productive learning experiences during field experience, Kroll (2005, p. 180) framed the problem driving her study in the following way:

> In studying the use of inquiry to address problems in practice (Kroll, 2003), I
> found that even in the most difficult contexts, when student teachers constructed
> inquiry questions and investigated them, they were able to overcome some of the
> overwhelming challenges and make significant progress in becoming good
> teachers. Importantly, the nature of the questions that the pre-service teachers
> chose to investigate made a difference in how well they were able to take an
> inquiry stand with regard to their own practices and to use that stance to change
> and improve practice. In this study, I focus on the process of choosing the
> question for inquiry.

Kroll's explanation illustrates Loughran's (2004, p. 24) fourth factor: "The outcomes of self-study demand immediate action." She identified a problem of practice – the quality of inquiry questions that students develop – from a previous self-study and immediately framed a new self-study to investigate the new problem. Self-study research, due to its focus on practice, often creates a sense of immediacy in the researcher to conduct additional research on their practice. This recursive nature of self-study is further evidence of its double-loop orientation to learning.

After a comprehensive data collection of videotaping 35 class sessions with 13 teacher candidates, Kroll analyzed the mechanisms through which teacher candidates developed their inquiry questions during the class sessions as a result of coursework and practicum experiences. The candidates were asked to discuss their inquiry questions regularly in small groups over the course of the year, often in response to particular questions posed by the teacher educator. The questions were focused both on issues that Kroll (2005, p. 184) believed were "central to successful student teaching and to future teaching" and on issues raised by the candidates as a result of their experiences. One significant finding of the study was that, by the end of the second semester of classes, teacher candidates were quite adept at helping each

another develop robust inquiry questions to pursue during their placements, and "all these inquiry questions were self-study questions about practice" (p. 187).

By the end of the academic year, Kroll reported a significant change in the way teacher candidates' engaged in inquiry as an element of the construction of professional knowledge. In particular, she highlights the role of the small-group collaborations in the development of attitudes of inquiry-as-stance in teacher candidates:

> It was a true contrast to earlier years, where students had collaborated but not necessarily toward greater understanding of their own teaching practice. In earlier instances they provided moral support and specific suggestions (based on their own experiences) that did not necessarily match the issues the student presented. Inquiry and collaboration allowed them to better understand and to problematize a situation before attempting solutions. The inquiry cycle made every change in teaching something to investigate and to understand, rather than to judge as good or unworkable. (Kroll, 2005, p. 189)

Kroll's article also includes two tables of inquiry questions (developed by teacher candidates) that show a significant shift from questions that might be thought of as single-loop learning to questions representing double-loop learning. For example, Krissy shifted from the initial inquiry question "How do I present material for English Language Learners?" to "Do I have different expectations for different children? Am I asking too little of some children?" Kroll's self-study indicates that a teacher educator who engages in self-study of personal practice can encourage the same kind of double-loop learning in teacher candidates.

Example 3: Using an Explicit Pedagogical Approach to Challenge Candidates' Initial Assumptions

In recent years we have become increasingly convinced of the importance of Lortie's (1973) concept of the "apprenticeship of observation" which named the socializing effects of mass schooling on all children, including those who grow up to become teacher candidates. As a result, teacher candidates come to Faculties of Education with a lifetime of experiences witnessing teachers teach, with little access to the reasons why teachers behave in particular ways. Teacher candidates can do reasonable impressions of how a teacher is supposed to behave right from the beginning of the program. At Queen's University, where we shared responsibility for teaching physics methods courses for a number of years, candidates begin their teacher education program with a month of coursework before their first practicum placement. As we noted at the beginning of our self-study:

> It is natural and comfortable to spend the first month of classes preparing teacher candidates for their first practicum by exploring teaching strategies, lesson planning templates, and classroom management techniques. Indeed, most teacher candidates come to preservice teacher education programs expecting such initial activities. It is also natural and comfortable to direct these explorations of preparatory topics in familiar ways that represent transmission rather than construction of knowledge. One problem with a transmissive approach resides in the fact that teacher educators have significant teaching experiences that teacher candidates do not. Despite our best intentions to prepare teacher candidates for the practicum, teacher educators

> are often perceived to be transmitting strategies and ideas in ways that are unconnected to candidates' personal experiences and that contradict the content being taught. (Russell & Bullock, 2010, p. 20)

We believed that the ideas of lesson study (Stepanek et al., 2007) seemed particularly likely to disrupt the prior assumptions that teacher candidates had developed about teaching due to their lengthy apprenticeships of observation. We also believed that it was particularly important to begin the year using lesson-study pedagogy because it "could provide a structure for signalling that meaningful learning experiences can be co-created and analyzed within a teacher education course, while minimizing the tension associated with waiting for the teaching experiences to happen during the Practicum" (Russell & Bullock, 2010, p. 23). To that end, we divided teacher candidates into groups of four and asked them to plan and present part of a physics lesson to the rest of the class. Lesson study required approximately two-thirds of our class time in September.

Given that neither of us had used lesson study for pedagogical purposes, we met regularly after class for purposes of collaborative self-study. We challenged both our assumptions about the pedagogical approach and our interpretations of how lesson study affected candidates' learning. One early, unexpected finding was that teacher candidates seemed eager to offer advice to their peers after each presentation, grounded in the language of "best" practices. We were perplexed at the difficulty that teacher candidates had with separating "teaching strategies" from "learning effects" and "agreed that candidates' preference to talk about teaching rather than learning seemed to us to be one important effect of the apprenticeship of observation" (Russell & Bullock, 2010, p. 27). Although we were initially frustrated by this disconnect, we soon acknowledged that we were expecting too much from candidates who had never been explicitly taught how to learn from experience. In hindsight, it was natural that candidates would mimic the kind of feedback they had heard teachers give many times throughout their lives.

At the end of the lesson study experience, we conducted a class discussion in which the candidates offered: "Knowing physics is not the same as knowing how to teach physics" (Russell & Bullock, 2010, p. 29). We agreed that lesson study offered candidates insight into the complexity of teaching by creating a shared set of classroom teaching and learning experiences for us to discuss as a group, rather than exclusively relying on stories of practicum experience that are, by nature, grounded in the individual. By enacting an unfamiliar pedagogical approach to address a specific problem of practice and engaging in collaborative self-study, we were able to challenge the effects that *our* teaching strategies had on candidates' learning. In other words, we faced the same challenge as our teacher candidates: we had to focus on the quality of their learning experiences rather than our teaching strategies.

Conclusion

We began with the premise that there are important differences between self-study of teacher education *programs* and self-study of teacher education *practices*. The former may employ a single-loop learning approach concerned with finding answers to specific problems to meet the needs of both internal program reviews and external professional accreditation reviews. The latter is a methodology that offers potential for engaging in double-loop learning, which is

characterized by a willingness to challenge existing assumptions and to share intellectual control over the problems of teacher education. Cochran-Smith and Zeichner (2005) have highlighted the need for research to provide evidence of the ways in which particular approaches in teacher education affect the quality of teacher candidates' learning. In this article, we have taken this problem as a way of challenging teacher educators to consider self-study of teacher education practices as a methodology for providing evidence relevant to teacher education reform.

We have provided three examples that illustrate the use of self-study methodology to support double-loop learning approaches to problems of practice. In particular, self-study of teacher education practices can force us to confront the differences between our theories of action and our theories in use. In the case of Berry (2007), a willingness to challenge prior assumptions about teaching future teachers led to a meaningful analysis of a pedagogy of teacher education. In the case of Kroll (2005), a double-loop approach to a problem of practice by a teacher educator encouraged teacher candidates to engage in the same kind of thinking about significant educational issues. In our case (Russell & Bullock, 2010), our reasons for using lesson study were continuously challenged by regular discussions that contrasted our theory of action with our theory in use. Each self-study presents evidence of a teacher educator's practice and the way that self-study methodology inspired productive development of that practice. Each self-study provides the opportunity for teacher educators to develop principles of practice. These principles can become touchstones for how individual teacher educators attempt to enact the values espoused at the level of teacher education program review and reform. It is one thing to have vision and mission statements at the program and personal levels; it is another to live these values in practice. As Berry's (2007) principles show, enacting pedagogies in teacher education classrooms can create significant tensions that shed light on issues that should be explored at the program level. The self-studies conducted by Kroll (2005) and Russell and Bullock (2010) remind us that teaching teachers is far more complex than revealed by course outlines. Both self-studies document specific pedagogical approaches designed to improve the quality of teacher candidates' learning, which is ostensibly at the core of program reform. We contend that research-based evidence developed through self-study of teacher education practices can and should play an important role in teacher education program review.

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Chapter 4

A Role for Quantitative Research in Promoting Equity in Teacher Education Admission

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This chapter describes a role for quantitative research in promoting equity in initial teacher education. Specifically, we argue that quantitative research can (1) help programs identify patterns – especially, gaps between groups of applicants or teacher candidates, (2) push programs to articulate values and goals, and (3) make the admission process more transparent and reliable. Examples are drawn from a program of research to support equity in admissions for the Ontario Institute for Studies in Education's Consecutive Initial Teacher Education Program.

In 2004, the Ontario Institute for Studies in Education's (OISE's) one-year Consecutive (post-Bachelor) Initial Teacher Education Program expanded its Admissions Policy Statement to include OISE's newly drafted policy stating its commitment to equity and diversity. The new Admissions Policy Statement begins:

> OISE/UT is strongly committed to social justice in everything it does. This means that we are committed to the just treatment of each individual member of our community and the communities we serve. It also means that we are especially vigilant to ensure that differences are not treated in ways that produce direct or indirect forms of discrimination. Our commitment to social justice also means that those with whom we work and live who experience individual or systemic discrimination, for whatever reason, are provided with the means to overcome social and physical disadvantages, to the best of our ability. It should be understood that equitable treatment sometimes involves similar treatment and at other times involves differential treatment in order to bring about an equality of results.

OISE had already been working to promote equity in its Consecutive Initial Teacher Education Program. The inclusion of this statement in the materials for new applicants to the program signalled a heightened focus on equity in every aspect of the admissions process – with the concomitant need for transparency in the admissions process in order to ensure equitable access as well as evidence of our commitments to equity. It also marked the

beginning of an ongoing critical examination, based on research, of how well the program's admission policies and procedures were promoting equity.

Since 2004, the program's admission committee has initiated a series of studies, using qualitative, quantitative, and mixed methods, to investigate how well the admission process is promoting equity and how it might be refined. This chapter builds on that work, outlining a role for research in promoting equity in initial teacher education more broadly, and exploring what quantitative methods in particular have to offer as part of a program of research to promote equity. In particular, we will illustrate how quantitative research can (1) help programs identify patterns, (2) push programs to articulate values and goals, and (3) make the admission process more transparent and reliable.

What Do We Mean by Equity in Teacher Education?

Equity in education is defined by Nieto and Bode (2008) as all students having "the real possibility of an equality of outcomes" (p. 11). Inequalities in outcomes, such as what knowledge and skills students learn and the academic credentials they earn, can be caused by unequal distribution of educational opportunities, including resources to support students' learning, special education and gifted education programming, and teachers' expectations of students' educational outcomes. Given that students differ in their learning needs and in their access to resources outside of school, inequalities in outcomes can be an indication that opportunities need to be redesigned or redirected. Discrimination, whether based on aspects of students' social identities or on their learning needs, whether systemic or practiced by individual educators, and whether overt or subtle, may limit students' educational opportunities. Furthermore, to achieve equality of outcomes, educators may need to direct current and future educational opportunities to students who have had fewer opportunities in the past because of discrimination. While a review of the literatures on the history and effects of discrimination in education is beyond the scope of this paper, we recommend Nieto and Bode (2008) for an introduction and Carr and Lund (2007) for a survey of the Canadian context.

In elementary and secondary education, investigations of equity typically focus on how opportunities and outcomes are distributed and to whom. Access to elementary and secondary education is less commonly investigated because communities are required to provide schools for all children; when equity is studied, the focus is typically on access to high quality educational environments and effective teaching (Darling-Hammond, 2000). In contrast, in higher education, when there are insufficient spaces to accommodate all those interested in a program or if the costs or other demands of a program are high, then investigations of access as a prerequisite for further opportunities and outcomes are important.

How does equity – that is, equality of opportunity and outcome – apply to teacher education? Teacher education programs must consider equity both for their own students – the pre-service teachers or teacher candidates – and for the elementary and secondary school students those teachers will eventually teach. For example, based on a review of the research, Little and Bartlett (2010) suggest that students' educational outcomes may be affected by teachers' academic preparation, whether teachers' social identities mirror those of the students, teachers' preparation to work with diverse students, and teachers' preferences for where and

whom they teach. In summary, providing equitable access for applicants in teacher education encompasses educational opportunities and outcomes for the pre-service teachers. Ultimately, this will have an effect on the educational opportunities and outcomes for the students they will teach.

To Promote Equity in Teacher Education, What Do We Need to Know?

Understanding principles of equity is foundational; however, it is only a beginning. If we are to promote educational equity, we also need information to guide the implementation of these principles in initial teacher education programs. That is not to suggest that we should delay doing anything while we collect information. Instead, we believe a commitment to promoting equity in teacher education includes a commitment to ongoing, critical investigation. In particular, we must continue to study the alignment of our admissions processes with our commitments to attracting, selecting and admitting applicants who demonstrate intercultural knowledge and responsivity, a commitment to promoting equity and social justice on behalf of students and society, and a willingness to continue to learn in service of all of the students in their classrooms and communities.

Elsewhere, we have described the role of the teacher education programs' admission processes in promoting equity for pre-service teachers and for the students they will teach (Childs, Broad, Gallagher-Mackay, Sher, Escayg, & McGrath, 2011) and the importance of broad and ongoing research to inform admission processes (Thomson, Cummings, Ferguson, Moizumi, Sher, Wang, Broad, & Childs, 2011). In the following pages, we will explore the role of quantitative research in promoting equity in initial teacher education.

Educational Research Approaches

A full survey of research approaches in education is beyond the scope of this paper (see Gray, 2004, or Creswell, 2008, for example, for an introduction); instead we will focus on the distinction most often made in identifying research approaches in education: qualitative versus quantitative. At the simplest level, as the names suggest, the distinction is between studying *qualities* and *quantities*. Certainly, quantitative and qualitative approaches are characterized by differences in data collection and analysis methods; however, as Howe (1992) points out, discussions of the differences between approaches often focus on epistemological paradigms – that is, on underlying assumptions about what is required to know something. Howe (1992) observes that positivism, associated with quantitative research, is typically identified with natural science, while interpretivism, associated with qualitative research, is identified with the study of humans' intentions and beliefs, The contrast between quantitative and qualitative research is, consequently, often characterized as "objectivity versus subjectivity, fixed categories versus emergent categories, the outsider's perspective versus the insider's perspective, a static reality versus a fluid reality, and explanation versus understanding" (p. 239). When quantitative research is described in this way, it is not surprising that educators might be sceptical about its usefulness – indeed, its appropriateness – for studying educational problems, given that much of education is socially constructed between the teacher and learner

and among learners. Indeed, it would seem by the above characterization that quantitative approaches are ill-suited to equity-focused research intended to effect social change (what Creswell, 2008, calls advocacy/participatory research).

Howe (1992), however, argues that these characterizations of positivism and interpretivism do not correspond to the realities of doing research. If these descriptions of the epistemologies associated with quantitative and qualitative research are caricatures, then perhaps the approaches are not as different as assumed. Researchers such as Brannen (2004), Hanson (2008), and Onwuegbuzie and Leech (2005) have also suggested that the differences between quantitative and qualitative approaches in the social sciences are exaggerated. Indeed, Brannen (2004) observes that there may be clearer differences between qualitative and quantitative researchers than between the research approaches they use. For example, Hanson (2008) argues that quantitative researchers may refer to objectivity as a theoretical ideal, but their methods (for example, double-blind clinical trials) clearly acknowledge the impact of human subjectivity. Qualitative researchers, she suggests, are similarly trying to account for subjectivity when they seek to triangulate their results by seeking additional perspectives.

What Kinds of Research Can Promote Equity in Teacher Education?

Are there inherent contradictions in using quantitative approaches, either alone or in combination with qualitative approaches, to promote equity in initial teacher education? In the previous section, we suggested that the caricature of quantitative research as coldly objective and focused on testing hypotheses leads some educators to question the appropriateness of quantitative research. Within quantitative research there are two principal approaches: survey research and experimental research. While experimental research introduces and measures the effects of an intervention, survey research is concerned with determining the patterns and prevalence of constructs in a group. When we refer to quantitative research in initial teacher education, we almost always mean survey research. This type of quantitative research is particularly good at detecting patterns in large datasets. In research to support equity, this may include identifying differences in opportunities or outcomes that are related to individuals' social identities or investigating relationships between opportunities and outcomes for teachers and students.

Survey research presents three main challenges: deciding whom to survey, defining constructs with sufficient specificity, and developing measures of those constructs. In the context of doing quantitative research to support equity, defining constructs with sufficient specificity is critically important – and very difficult. However, far from being a reason not to use quantitative approaches, we believe this difficulty is a reason to include quantitative approaches in a program of research to support educational equity. The very work of defining the constructs has the potential to make the values underlying equity work in initial teacher education more explicit – and so to make the decisions based on those values more transparent and contestable. As we will illustrate in the following section, in our research on initial teacher education admissions, using quantitative approaches has often pushed us to re-examine assumptions.

In this paper, we will also consider measurement to be an aspect of quantitative research. While measures are often developed for use in survey research, they can also be developed for

other uses. In the admission process, the principles of measurement can inform the development of the admission criteria and the processes by which those criteria are applied and combined.

In summary, quantitative research can make several important contributions: (1) quantitative approaches are very useful for identifying patterns in large sets of data – this is particularly important when looking for gaps between groups that might suggest where there are inequities that need to be addressed; (2) the requirements of quantitative research include defining constructs in sufficient detail that they can be measured – this has pushed us to be clearer and more transparent in articulating values and goals; and (3) measurement principles also have the potential to make the admission process more transparent and reliable.

Examples

In the following pages, we provide examples from the program of research on equity within OISE's one-year Consecutive Initial Teacher Education Program. This program receives between 4,000 and 7,000 applications each year for about 1,300 spaces. Because Ontario has 13 publicly-funded faculties of education, no single faculty bears the full responsibility for training Ontario's teachers. This means that Ontario faculties have comparative freedom to differentiate themselves in program foci and admission criteria, within the requirements set by the Ontario College of Teachers. As the Admissions Policy Statement quoted at the beginning of this chapter showed, OISE's consecutive program emphasizes its commitment to pursuing educational equity both for its applicants and, through the teachers it prepares, for Ontario's students.

Building on the principles articulated in the Admissions Policy Statement adopted in 2004, in preparation for the 2008/09 admission cycle, the admissions committee articulated three commitments to guide admission decisions:

- Attracting and admitting teacher education candidates with the potential to become excellent teachers and educational leaders, and who will draw upon their unique and diverse background experiences to do so,
- Admitting students who show an openness, willingness and/or commitment to work towards equity in diverse classrooms and schools, and
- Admitting a diverse student body that reflects the diverse student body in Toronto and Ontario classrooms and schools.

The first of the program's commitments emphasizes that the program needs to recognize a diversity of ways for applicants to show their potential to become excellent teachers. The second addresses applicants' "openness, willingness and/or commitment to work towards equity in diverse classrooms and schools." Once applicants are admitted, of course, as Little and Bartlett (2010) observe, the program must prepare all of the pre-service teachers to work with all students. The last of the commitments is related to Little and Bartlett's observation that students' educational outcomes are affected by whether teachers' social identities mirror those of the students. In research on the effects of teachers' social identities on students' outcomes, particular attention has been paid to racialized identities. According to Clewell and

Villegas (1998), for example, research in the United States suggests that teachers who are members of racialized minority groups serve as important role models for all students and have higher academic expectations of racialized minority students. It is clear from recent Canadian research (Ryan, Pollock, & Antonelli, 2009) that the racial diversity of the current teaching population does not reflect that of the student population in Ontario.

Since adopting the Admissions Policy Statement and articulating the three commitments, OISE's Consecutive Initial Teacher Education Program has undertaken to examine how well the program's admission policies and procedures have been promoting equity. Because the admission process determines who is admitted to the program, it determines who has the possibility of receiving the opportunities and achieving the outcomes that are ultimately important to supporting equity for students in the schools. Of course, being offered admission does not guarantee that an individual will accept the offer to attend the program or that, if they do, they will all receive the same opportunities and achieve the same outcomes. In other words, it is a necessary, but not sufficient condition for receiving the opportunities and achieving the outcomes. As we have argued elsewhere (Thomson, Cummings, Ferguson, Moizumi, Sher, Wang, Broad, & Childs, 2011), research on admissions is only one part of the research needed by an initial teacher education program.

Identifying Patterns and Finding Gaps

To achieve equity in initial teacher education, we need to know what outcomes and opportunities are important for pre-service teachers and who is currently accessing those opportunities and achieving the outcomes. Where there are gaps or inequities – if applicants with a particular social identity are less likely to apply, less likely to be admitted, less likely to receive the important opportunities during the program, or less likely to achieve the important outcomes – then we need to find out how to close those gaps. This is an area where there is a critical need for research. To investigate this, we have undertaken what we call "Application to Registration" analyses (Ferguson & Childs, 2011). With support from the Registrar's Office, we are able to compile a database containing information about how each part of an applicant's materials were evaluated, along with her or his voluntary responses to questions about racial identity, dis/abilities, sexual orientation, religion, and parents' education. The purpose of these quantitative analyses, which include event history analyses, is to determine whether any parts of the admissions process – for example, evaluation of language proficiency, acceptability of the previous degrees, or ratings of the application essays – differentially affect subgroups of applicants. These analyses serve as an example of the use of survey research to identify patterns in large datasets; this research is central to our ongoing commitment to pursuing equity because it has the potential to tell us where there are remaining inequities. It cannot tell us, however, where to look for possible inequities or, if inequities are found, what their causes might be. It is critically important, therefore, that this research be part of a larger program of complementary studies.

A recent study of graduates of OISE's Concurrent Initial Teacher Education Program and of initial teacher education programs at three other Ontario faculties of education (Herbert et al., 2010) investigated factors that might affect students' experiences during the program and graduates' experiences after the program. This mixed methods study focused on graduates' feelings of preparedness and success in relation to their teacher preparation programs, and on school administrators' assessments of successes and challenges facing beginning teachers

relative to teacher preparation. While the programs at the four faculties share many similar components by regulation (e.g., at least 40 days of practice teaching, courses must include Ministry of Education curricula, human development and legal knowledge), there were some differences in program emphases, particularly in the consecutive programs.

Ratings from graduates of the four consecutive teacher education programs were compared to determine if program emphases had an influence upon their responses. Graduates gave higher ratings for the program assisting them to work with students whose first language was not the dominant language and understanding students from different cultural backgrounds when the faculty emphasized culturally inclusive practices. This was true even for graduates working in settings that required this knowledge. Candidates from the faculties that stressed special education in courses and practica gave higher ratings for their programs preparing them to work with students with identified needs. Thus, it appears that teacher education programs' areas of focus and emphasis influence their graduates' perceptions of their preparedness to work with and achieve successful outcomes for all students. It would also seem that these areas reflect important outcomes for teacher education programs that aspire to prepare teachers capable of working to provide equitable access, opportunities, and outcomes for students in schools.

Finally, the potential for quantitative research to evaluate the relationship between admission criteria and outcomes is illustrated by Casey and Childs's (in press) study, in which they compared the teaching practica performance and self-judgements of preparedness of 102 preservice teachers specializing in high school mathematics in OISE's Consecutive Initial Teacher Education Program during the 2003/2004 academic year, with their undergraduate grade point average, the rating of their application essays, and judgements of their preparedness by course instructors and the teachers with whom they did their teaching practica. Casey and Childs found that undergraduate grade point average and essay ratings were not strong predictors of the teacher candidates' success in practice teaching. In a related article, Casey and Childs (2008) suggested that admissions criteria should be designed based on an understanding of the knowledge, skills, and attitudes teacher candidates will need when they graduate from the program and the preparation the program can realistically provide. That is, initial teacher education programs need to know what their graduates will require as beginning teachers and ensure that those who they admit to the program are prepared to acquire such knowledge and skills (this assumes that the program does not have the flexibility to provide remedial training to those pre-service teachers who do not have the required knowledge; see Falkenberg, 2010, for a thoughtful critique of this assumption).

Articulating Values and Goals

Clarifying the values and goals of the program is important both for developing parts of the admission process and for studying the process. For example, in the Application to Registration analyses (Ferguson & Childs, 2011), dimensions of social identity had to be defined, categories within those dimensions chosen, and decisions made about what categories should be compared. This required careful consideration of the values underpinning the program's equity goals – and clear articulation of the goals. In Casey and Childs's (in press) study, before perceptions of preparedness for teaching could be measured, it was important to identify the aspects of preparedness the program sought to develop.

These and other quantitative studies highlighted the need for increased clarity about the program's values and goals, which motivated us to perform what we called an "equity case study" (see Childs, Broad, Gallagher-Mackay, Sher, Escayg, & McGrath, 2011). In this qualitative study, we performed a review of admission documents and documentation from the preceding five years, interviewed ten past and current members of the admission committee, and reviewed the literatures on equity in education, higher education admission policies and processes, and the effect of teachers' characteristics on students' learning, plus Ontario-specific discussions of the teachers that Ontario schools need. From this study came a much clearer view of our overall approach to admissions, one that we refer to as "equity in and through admissions." This study also renewed our commitment to monitoring the admission process for any evidence of gaps or inequities and serves as the foundation for future quantitative studies.

Increasing Transparency and Reliability

Research that improves the fairness and transparency of the admission process for initial teacher education programs has the potential to reduce inequities. Applying measurement principles in developing the criteria for admission, designing questions to assess those criteria, developing rubrics for the questions, and creating rules for combining the criteria has helped to make the admission process more transparent and, we trust, more reliable (unfortunately, we do not have reliability information from previous versions of the questions, and so cannot compare the reliability before and after these changes).

Research on how the applicant essay questions are understood and rated has been particularly important. The mixed methods study by Childs, Ram, and Xu (2009), in which they performed multidimensional scaling analyses of rating patterns, and then interviewed the raters in order to understand the sources of variability in the ratings informed a deeper examination of rating patterns, as did Ferguson's (2010) sophisticated quantitative analysis. Her study used a many-facets Rasch measurement model to estimate how much of each rating is due to qualities of the applicant's response and how much is due to the rater's leniency or severity. We have begun to consider the implications of these research findings and are planning to share these results with admissions raters to increase raters' metacognition and self awareness.

Discussion and Conclusion

So, is there a role for quantitative research in promoting equity in initial teacher education? In our experience, quantitative research can: (1) help us identify patterns – especially gaps – in large sets of data; (2) push us to articulate values and goals; and (3) make the admission process more transparent and reliable.

As the examples in the preceding sections have illustrated, the program of research on initial teacher education admissions that has developed over the past several years might be characterized as pragmatic – with the goal of informing our practice, we have used both quantitative and qualitative approaches, guided in our choice by the specific research questions that needed to be answered. We would argue that the approach also has aspects of advocacy in

it, as we are committed to making whatever changes are necessary in our practice to effectively promote equity for pre-service teachers and their eventual students. The research is not participatory, in that it is not being guided by the pre-service teachers or their eventual students; a full exploration of the potential for a participatory approach is beyond the scope of this chapter.

In conclusion, this chapter is part of our ongoing effort to understand how best to promote equity in initial teacher education – and how quantitative research can be used to support that effort. Given that initial teacher education programs across the country share the goal of promoting equity for both the teacher candidates and the students they will eventually teach, more research and discussions – especially about what is unique to and works best in Canadian education – are needed. We believe that quantitative research can play an important role in clarifying and monitoring admissions processes and providing contextual data to inform programs in their pursuit of equity.

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Chapter 5

What Should Count as Evidence in Teacher Education Reform?

DAVID DILLON & KEVIN O'CONNOR

We address the question of what should count as evidence to be used in teacher education reform efforts. We propose two kinds of complementary evidence: (1) evidence of the actual professional competence of teacher candidates as prime indicators of the effectiveness of programs and (2) evidence from the analyses of the principles and practices of exemplary teacher education programs, complemented by the results of self-study of teacher education practices. We then address implications of these kinds of evidence for how that evidence is gathered, by whom, and when. We conclude with a discussion of the contextual challenges for teacher education programs in actually using such evidence as the basis for program reform.

What Evidence Should Be Used?

Since the goal of teacher education programs is the development of competent teachers, we propose that two major and complementary sources of evidence should be used as the basis for reform of teacher education programs in Canada: (1) evidence of the actual professional competencies developed—or not—by teacher candidates during their programs and (2) evidence of the practices of teacher education programs that are effective in developing competent graduates, complemented by the results of self-study of teacher education practices. The first source of evidence would provide information about the relative effectiveness of a teacher education program in developing teachers and the second source of evidence would indicate the aspects of the program that contribute—or not—to that degree of effectiveness of its graduates

Teacher Candidates' Professional Competencies

As obvious a focus as the competence of teacher candidates seems to be as evidence, the notion of "competency" suffers from a wide range of definitions, and a problematic history. "Indeed, there is no single acceptance of the term. Definitions differ according to the interlocutor, the standpoint taken, and the use of the notion of competency, to the point of being incompatible" (Minet, Perlier, & de Witte, 1994, p. 16). To simplify our discussion of this notion, we examine two major and opposed notions of competency, an earlier, simplistic,

and mechanistic one that we find lacking and a more recent complex and holistic one that seems to better reflect the actual reality of teacher competency.

The first notion of competency is a construct based on behaviourism. It arose from the efforts of researchers in the late 1960s and the 1970s to create a "science" of teaching in response to widespread criticisms of the lack of a scientifically-established knowledge base in teacher education programs. It also formed the basis for the development of competency-based, or performance-based, approaches to teacher education. This approach attempts to specify in great detail the very specific knowledge, skills, and behaviours, as revealed by scientific research, that comprise competent professional performance. For example, Burns (1972) discusses the principles of constructing these kinds of competencies and offers an example of such a competency, as both a terminal behavioural objective (TBO) as well as the sub-objectives, or instructional objectives (IO), that comprise the terminal behavioural objective.

> TBO. Learner is to develop an understanding of multiple-choice (MC)
> achievement testing based on a table of specification, so that he can
> (a)   create a table of specification for a 6-7-8 grade unit of his choice, and
> (b)   write a sample of 25 MC items conforming to the table
> IO5 Develop a table of specification.
>   IO4 Write 5 MC items.
>   IO3 When given 25 MC items, locate and classify errors.
>   IO2 Learn types of errors made in MC-item writing.
>   IO1 Learn MC terminology.
> (Burns, 1972, p. 27)

The result of competencies like this one, however, is a fragmented list of large numbers of sub-components that de-contextualize knowledge and isolate skills. Although Burns warns of the danger of creating too many specific competencies, even thousands, for a teacher education program, he uses a planning example for a two-year program that consists of 384 competencies, addressed through 128 separate modules of 6 hours each, as a suitable number for teacher candidates to master. In this view, "teachers' worth and their work become broken down and categorized into checklists of performance standards" (Hargreaves, 2000, 150-151). Yet that sort of evidence has not correlated well with actual professional ability. As Minet, Parlier, and de Witte (1994) conclude, "A sum of knowledge has never been a competency for action" (p. 31).

The opposed notion of "competency" is a global, holistic, and integrated construct that reflects the recent awareness of the complexity of teachers' ability that leads to their effective and autonomous action in diverse and complex situations (e.g., Jonnaert, 2002; Lafortune, 2009). Peyser, Gerard, and Roegiers (2006) describe this notion of competency as "the spontaneous mobilization of a set of resources in order to apprehend a situation and respond to it in a more or less relevant way" (p. 37). The set of resources mobilized into effective action by a competent professional can be knowledge, specific skills, values, resources, and so on. Yet it is only in a real-life professional context that this mobilization can take place, that is, in "work contexts and situations that are characterized by the undetermined, uncertainty, often urgency, and always by the need to find answers that have some level of originality as regards what is already known and what has already been done" (Estevez, 2009, p. 39).

This distinction between these two different notions of competency reflects Schön's (1987) argument that scientific research can provide only limited guidance for professionals who are in the process of developing effective professional practice. Schön posits that such an approach cannot discover, teach, and help students apply all that proficient professionals need to know and be able to do in order to practice their profession competently and well. He claims that much of what research has helped us discover about professional practice informs us about lower-level and less important aspects of professional practice. What we know less about, he claims, is the highly complex, problematic, and open-ended aspects of professional practice, in other words, the situations for which there is no obvious right answer based in professional knowledge and the very aspects of practice that determine whether a professional practitioner conducts his or her practice well, even with "artistry," or not. Such competence is developed, argues Schön, through reflective practice.

The Ministry of Education in Quebec has adopted an approach to teacher education based on a framework of professional teaching competencies that reflect the more global, holistic, and integrated notion of competency discussed above (Ministère de l'Éducation du Québec, 2001). By doing so, it endorses Schön's argument about the nature of the development of professional competence. This set of competencies is mandated as exit competencies to be achieved by teacher candidates by the end of their teacher education program and which should form the underpinnings of teacher education programs in the province.

The Ministry explains seven features of this notion of professional competency:

> Competency:
> - exists in a real-life setting.
> - follows a progression from simple to complex.
> - is based on a set of resources.
> - is based on the ability to mobilize resources in situations requiring professional action.
> - is part of intentional practice.
> - is demonstrated as a successful, effective, efficient, recurrent performance.
> - is a project, an ongoing pursuit.
>
> (Ministère de l'Éducation du Québec, 2001, pp. 48-50)

It then proposes a framework of twelve professional teaching competencies, organized in four categories: Foundations, Teaching act, Social and educational context, and Professional identity. For each of the twelve competencies, the Ministry offers both a set of sub-features that comprise the competency and levels of mastery that candidates should achieve by the end of their initial training. Two of the competencies are offered here as examples of this approach.

Table 1: Competencies, Features, and Levels of Mastery

Competency	Features	Level of Mastery
To plan, organize, and supervise a class in such a way as to promote students' learning and social development.	Develops and implements an efficient system for running regular classroom activities. Communicates clear requirements regarding appropriate school and social behaviour and makes sure that students meet those requirements. Involves students on an individual or group basis in setting standards for the smooth running of the class. Develops strategies for preventing inappropriate behaviour and dealing effectively with it when it occurs. Maintains a classroom climate that is conducive to learning.	Introduce and maintain routines that ensure the smooth running of regular classroom activities. Identify and correct organizational problems that hinder the smooth running of the class. Anticipate some of the organizational problems that hinder the smooth running of the class and plan measures to prevent them. Establish and apply methods that can be used to solve problems with students who exhibit inappropriate behaviours.
To engage in professional development individually and with others.	Takes stock of his or her competencies and takes steps to develop them using available resources. Discusses the relevance of his or her pedagogical choices with his or her colleagues. Reflects on his or her practice (reflective analysis) and makes the appropriate adjustments. Spearheads projects to solve teaching problems. Involves peers in research related to the mastery of the competencies targeted in the programs of study and to the educational objectives of the school.	Identify, understand, and use available resources (research reports and professional literature, pedagogical networks, professional associations, data banks) related to teaching. Identify his or her strengths and limitations, along with his or her personal objectives and the means of achieving them. Engage in rigorous reflexive analysis on specific aspects of his or her teaching. Undertake research projects related to specific aspects of his or her teaching.

Thus, the Ministry of Education in Quebec has determined evidence of teacher candidates' professional teaching competencies as the major evidence of the effectiveness of teacher education programs as the basis for recommending candidates for certification.

As the result of much recent research on the specific aspects of teachers' competencies (e.g., Loughran, 2010), the process of evaluation of those competencies has become more clarified and supported, particularly by means of rubrics indicating levels of abilities within competencies. For example, Danielson (1996), using the results of empirical studies and theoretical research, has developed a framework of professional teaching competencies grouped in four domains: planning and preparation, the classroom environment, instruction, and professional responsibilities. She has also developed a rubric of levels of performance for the various competencies. As an example, here is part of the rubric for the competency of managing student behaviour.

Table 2: Rubric for Managing Student Behaviour

	Unsatisfactory	Basic	Proficient	Distinguished
Expectations	No standards of conduct appear to have been established, or students are confused as to what the standards are.	Standards of conduct appear to have been established for most situations, and most students seem to understand them.	Standards of conduct are clear to all students.	Standards of conduct are clear to all students and appear to have been developed with student participation.
Monitoring of Student Behavior	Student behavior is not monitored, and teacher is unaware of what students are doing.	Teacher is generally aware of student behavior, but may miss the activities of some students.	Teacher is alert to student behavior at all times.	Monitoring by teacher is subtle and preventive. Students monitor their own and their peers' behavior, correcting one another respectfully.
Response to Student Misbehavior	Teacher does not respond to misbehavior, or the response is inconsistent, overly repressive, or does not respect the student's dignity.	Teacher attempts to respond to student misbehavior but with uneven results, or no serious disruptive behavior occurs.	Teacher response to misbehavior is appropriate and successful and respects the student's dignity, or student behavior is generally appropriate.	Teacher response to misbehavior is highly effective and sensitive to students' individual needs, or student behavior is entirely appropriate.

(Danielson, 1996, p. 87)

In later work, Danielson (2000) goes on to survey the broad range of evidence which would provide the basis for the evaluation of these kinds of competencies. That evidence can come from several sources: other professionals, such as mentoring teachers, school principals, and so on (e.g., classroom observation of teaching, review of various documents and artifacts, etc.), teachers themselves (e.g., self-assessments, structured reflection, planning documents, teaching artifacts, samples of student work, other documents, etc.), and student, parent, or colleague feedback (e.g., surveys, spontaneous feedback, etc.).

In summary, we contrast the key differences between this contemporary notion of competence and the earlier version of competency.

1. It is broad and global in scope, as opposed to relatively narrow and specific.
2. It is an integrated constellation of knowledge, skills, values, and resources, as opposed to relatively isolated knowledge and/or skill.
3. It always exists in a real-life context, as opposed to a de-contextualized situation.
4. It can only be assessed in the context of actual teaching situations, as opposed to being assessed within campus-based courses.
5. It can be evaluated only over a good length of time with a broad range of evidence from multiple sources, as opposed to being able to be evaluated fairly quickly through one pre-determined behaviour.
6. A framework of them is fairly small in number, as opposed to a very large framework of hundreds, or even thousands, of them.
7. Demonstrated mastery of this framework equals effective teaching, as opposed to mastery of many specifics that may well not equal effective teaching.

While both notions of competency are based on the results of scientific research, the earlier and more limited notion cannot add up to effective practice, which requires creative analysis and response to ever-changing and complex demands. It may, however, provide beginning guidelines for practice as technical application at the start of a professional's journey toward eventual effective practice.

Effective Practices of Teacher Education Programs

The other major and complementary source of evidence which we propose as the basis for reform of teacher education programs is the aspects of teacher education programs which contribute—or not—to the development of competence in their teacher candidates.

In her analysis of seven exemplary American teacher education programs, Darling-Hammond (2006) trenchantly summarizes the inept state of much teacher education. "Such powerful teacher education programs are, by most accounts, relatively rare. Indeed, some opponents of professionalization might consider the very notion of an effective teacher education program to be an oxymoron . . ." (p. 6). Indeed, a great deal of research has confirmed that teacher education programs have been relatively ineffective in helping their students not only understand, but above all successfully apply in their field experiences, the research-based guidelines for teaching offered to them by their university course work. The evidence is long-standing (e.g., Zeichner & Tabatchnik, 1981) and widespread (Wideen, Mayer-Smith, & Moon., 1998; Clift & Brady, 2005). As the major analysis of 93 studies by Wideen et

al. (1998) concluded, "The notion that coursework should provide teaching skills and information about teaching—and that beginning teachers can integrate and effectively implement that information—receives very little support from this research" (p. 151). However, while there is a good deal of information on the generally ineffective results of teacher education programs, there is much less information about the practices within teacher education programs that result in various outcomes for teacher candidates.

> Although there has been discussion about the structure of teacher education programs . . ., there has been much less discussion about what goes on *within* the black box of the programs—inside the courses and clinical experiences that candidates encounter—and how the experiences programs design for students cumulatively add up to a set of knowledge, skills, and dispositions that determine what teachers actually do in the classroom (Darling-Hammond, 2006, p. 11).

Fortunately, two research trends in recent years have begun to expose the contents of that black box of teacher education programs. The first trend has been to identify exemplary teacher education programs and to analyze their practices that develop strong competencies in their teacher candidates. One of the first and most widespread studies was that done under the auspices of the American Association of Colleges of Teacher Educators (AACTE) that identified seven excellent teacher education programs in the U.S. and analyzed them through case study research (Darling-Hammond, 2000; Koppich, 2000; Zeichner, 2000). The evidence of excellence used as the basis for these case studies came from several sources. First, through surveys, teacher candidates assessed the strong quality of their preparedness to teach as a result of these programs. Second, through surveys and interviews, employers in local schools rated the competence of graduates of these programs as quite high and sought them out for employment. Finally, through qualitative research, educational researchers documented the ability of program graduates to set up and maintain strong learning programs during their early years of teaching. Note how this kind of evidence of program effectiveness reflects the kind of evidence required to evaluate teacher candidates' global and integrated teaching competencies, the very competencies which this evidence from teacher candidates, employers, and researchers is focused on.

That major, three-volume study by AACTE provided the basis for Darling-Hammond's (2006) subsequent analysis of the key effective components common to those seven exemplary teacher education programs, chosen to represent a range of different kinds of universities and program structures. She summarizes the key features of the seven exemplary programs that contribute to the successful outcomes for their teacher candidates.

- A common, clear vision of good teaching permeates all course work and clinical experiences.
- Well-defined standards of practice and performance are used to guide and evaluate coursework and clinical work.
- Curriculum is grounded in knowledge of child and adolescent development, learning, social contexts, and subject matter pedagogy, taught in the context of practice.
- Extended clinical experiences are carefully developed to support the ideas and practices presented in simultaneous, closely interwoven coursework.

- Explicit strategies help students (1) confront their own deep-seated beliefs and assumptions about learning and students and (2) learn about the experiences of people different from themselves.
- Strong relationships, common knowledge, and shared beliefs link school- and university-based faculty.
- Case study methods, teacher research, performance assessments, and portfolio evaluation apply learning to real problems of practice.

(Darling-Hammond, 2006, p.41)

A similar study by Beck and Kosnik (2006) analyzed the key features of eight teacher education programs—five American, two Australian, and their own Canadian cohort at the Ontario Institute for Studies in Education/University of Toronto (OISE/UT)—that were based primarily on a social constructivist approach. By "social constructivist," they mean that knowledge is constructed by learners, that knowledge is based on experience, that learning is social, and that all aspects of a person are involved in learning. Apart from the extensive qualitative research on their own cohort at OISE/UT over a number of years, the evidence used as the basis for their conclusions by Beck and Kosnik were extensive interviews with key staff at the other seven teacher education programs and analysis of a wide range of documents from within those programs.

The authors noted three major features of these programs that contributed to their success.

- Integration, that is, coherent learning that integrates theory and practice, knowledge and experience, as well as holistic learning that integrates the cognitive and emotional, the personal and professional.
- Inquiry, that is, an approach to teaching and learning that recognizes the fluid and changing nature of knowledge, the need to construct knowledge and re-construct it, particularly socially. Such a learning process by candidates requires a non-authoritarian, responsive pedagogy on the part of faculty.
- Community that provides support for intellectual learning, emotional development, inclusion, and sharing.

While this first research trend studies the practices and outcomes of entire teacher education programs, a second and complementary research trend has been that of the self-study of teacher education practices, S-STEP (e.g., Loughran, Hamilton, LaBoskey, & Russell, 2004; Loughran & Russell, 2002; Samaras, 2002), a trend which provides further insight into the "black box" of teacher education programs. In essence, while it draws from a wide range of research methodologies and, thus, kinds of evidence, S-STEP is systematic research by teacher educators about the issues and challenges in their own teaching, with their own students, in their own context through reflective analysis in order to better understand and improve their practice. The prompt for such inquiry is often a dissatisfaction with some aspect of the status quo or an awareness of living a contradiction in their practice. While the inquiry is conducted primarily for the benefit of the individual, it is also oriented toward others by investigating questions of broader interest to the teacher education community, ultimately aimed at improving teacher education programs.

Since much of S-STEP research is done by individual teacher educators or small groups of teacher educators to study the effect of their own practices in their own courses and practica, the evidence generated by such research can complement the broader program analyses of the surveys discussed above by creating insight into more specific aspects of programs and practice. For example, Russell (2002) describes major program reform elements of the teacher education program at Queen's University in the late 1990s, one of which was the creation of the role of Faculty Liason, a role designed to link teacher candidates' experiential learning in field experience with their learning in campus-based courses and to help foster a sense of school-university partnership. He then goes on to report the results of his own self-study of his experience in that role of Faculty Liason. The results unearth a number of unforeseen complexities and tensions of the role that made it difficult to achieve the goals of this new role, yet which also provide insights for adjusting his approach to the role and its structure within the program. Such results of more specific self-study provide implications for further refinements and adjustments of program-wide reform.

The chapter in this volume by Bullock and Russell (chapter 3) explains at some length how S-STEP can complement—and usually enhance and improve—the broader reform of teacher education programs. Its major argument is that S-STEP has more potential than program reform to break out of traditional, and limiting, ways of considering teacher education practices and to create new perspectives and practices with greater potential for effectiveness. In addition, it provides several specific examples of self-study research by teacher educators within the context of teacher education programs.

In sum, the S-STEP movement seeks to develop a theory of teacher education through the professionalization of teacher education (Korthagen & Russell, 1995).

The Two Major Sources of Evidence

We propose that two major and complementary sources of evidence be used in considering reform of teacher education programs. The first is the actual professional competencies of teacher candidates developed during their program. Such evidence should be a primary indicator of the effectiveness of programs—or their lack of effectiveness, thus prompting them toward reform. The second is the results of research on the key principles and practices of exemplary teacher education programs that contribute to the development of competent teachers, complemented by the results of self-study of teacher education practices. The principles and practices of such exemplary programs should provide strong evidence upon which to base program reform.

Implications of How, by Whom, and When Evidence of Professional Competencies and Effective Program Practices Is Gathered

Teacher Candidates' Professional Competencies

A major implication of the evidence of teacher candidates' competence is that it must come from actual professional practice by teacher candidates. Since discrete knowledge and isolated skills do not equal the kind of competency we are advocating, it seems that course work within

a teacher education program, while contributing toward such competence, would offer little evidence of actual professional competence. On the other hand, actual work as a teacher—field experiences, school-based projects, the early years of teaching—are privileged as virtually the only source of this kind of evidence. That is, it is only during such experiences that teacher candidates can experiment with their mobilization of resources in order to respond to actual, complex professional demands and problems.

Furthermore, since competencies are not only complex but also need to be demonstrated on a recurring basis, *how* this evidence needs to be gathered would have to be extensive, over time, from multiple data sources, and in various contexts (Ministère de l'Éducation du Québec, 2003; 2005). Lafortune (2005), drawing on Scallon (2004), explains that multiple contexts are important for evaluating the development of competencies since different contexts will require different use of resources.

Such an implication raises further questions about *who* might gather this evidence about teacher candidates on a regular basis since such an extensive, time-consuming, and labour-intensive approach would be problematic for teacher educators. The most obvious alternative is to turn to those who are with teacher candidates extensively during their teaching experiences in schools, namely associate, or mentoring, teachers. Perhaps the most helpful role for teacher educators to play in developing this evidence would be to help develop the ability of associate teachers to not only foster the development of competencies in teacher candidates, but also to evaluate the level of development of the competencies. Such a project has started recently at Bishop's University (Aitken & Kreuger, 2010) and should yield important insights on this kind of possibility.

Involving associate teachers in the gathering of this evidence opens the door to input from a range of other key people, such as teacher candidates themselves and those who know them well during the early years of teaching, such as employers, mentors, and so on. In fact, the evidence upon which the case studies done by AACTE based the identification of exemplary teacher education programs for analysis (Darling-Hammond, 2000; Koppich, 2000; Zeichner, 2000) came from three different sources:

- Teacher candidates self-assessed the quality of their preparation in these programs and the degree of their readiness to teach as quite high.
- Employers identified these exemplary programs on the basis of strong teaching competence regularly displayed in their schools by graduates of the programs.
- Researchers confirmed the strong competence of these beginning teachers by documenting their ability to establish strong learning programs for diverse groups of learners during their early years of teaching.

We submit that each of these data perspectives is based on the notion of a global, integrated, and complex notion of competence upon which our discussion has thus far been based. They all assess teachers' ability to mobilize a set of resources in a range of complex, real-life situations on a recurring basis over time.

Finally, these implications stemming from a decision about what kind of evidence to use in teacher education reform also suggest *when* the evidence should be gathered. Since we know little about the development of these complex competencies in teacher candidates, it would be important to study it during a teacher education program, "The current literature . . . tends to

concentrate on the professional practices of experienced teachers. Research involving new teachers is fragmented and incomplete" (Ministère de l'Éducation du Québec, 2001, p. 53). In fact, Schön (1987) acknowledged the potential role of scientific, or technical-rational, guidelines in the development of more complex competencies during "reflective practicums." The key point for him, however, is how and when that expert knowledge is used, since it may serve as a starting point in a gradual sequence of progression from technical application to the eventual development of professional artistry.

> Perhaps we learn to reflect in action by first learning to recognize and apply standard rules, facts, and operations; then to reason from standard rules to problematic cases, in ways characteristic of the profession; and only then to develop and test new forms of understanding and action where familiar categories and ways of thinking fail. (p. 30)

Such evidence of the development of professional competences by teacher candidates is not currently known, but could be discovered through an assessment of them during a teacher education program.

In addition, another primary source of evidence seems to be the competence of teacher candidates at the end of their program and in the early years of their teaching, that is, the result of their experiences in their teacher education programs. The types of partnerships with associate teachers and with local school employers discussed above would be necessary to ensure documentation of such evidence.

Effective Practices of Teacher Education Programs

While considering reform of teacher education programs in Canada, we can rely on the kind of evidence from exemplary programs summarized above. However, we can also generate our own similar data about our own programs, through broad and integrated analyses of the programs (like those done by Darling-Hammond, 2006, and Beck and Kosnik, 2006, described above), evidence which is currently lacking in Canada. We can also engage in self-study of our own teacher education practices as a continual means of improving our programs. Such steps would be a commitment to continual and ongoing reform of our programs and to placing discussion and study of our practices high on our common agendas as staffs.

Issues and Challenges in the University Context in Using this Evidence as the Basis for Reform

A good deal of evidence already exists about effective teacher education programs (for example, Beck & Kosnick, 2006; Darling-Hammond, 2006) that suggests several key aspects for reform of teacher education programs:

- a high degree of program integration and coherence in regard to vision and content,
- a high degree of integration between course work and extensive clinical experiences,

- an inquiry approach to learning for teacher candidates to construct their competence,
- strong school-university partnerships as a base for the integration of theory and practice,
- strong assessment of teacher candidates' developing competencies.

However, in light of that evidence, the question arises, why does it seem to be the case that *despite* such evidence most teacher education programs are still not using such evidence for program design?

The answer in part may be that there are a number of challenges and barriers to such reform of teacher education programs, especially as a result of their location within the university context. In fact, Labaree (2008) points out that from the beginning

> The relationship between the university and teacher education has been an uneasy one for both parties. There has been persistent ambivalence on both sides. Each needs the other in significant ways, but each risks something important in being tied to the other. The university offers status and academic credibility, and teacher education offers students and social utility. But in maintaining this marriage of convenience, the university risks undermining its academic standing and teacher education risks undermining its professional mission. (p. 290)

These challenges and barriers must be understood and addressed if teacher education reform is to have any chance to succeed.

Although Darling-Hammond (2006) documents that it is possible to develop powerful teacher education programs in the university context, she realistically addresses the challenges which teacher education faces in the university context.

> Many schools and departments of education have tried to lift their prestige within the [university] by distancing themselves from the world of schools and practice, seeking to adopt the ivory tower norms of departments of arts and sciences rather than embracing the training responsibilities of professional schools. The incentive systems of university favor research and inward-looking faculty service over the intensive and time-consuming work with prospective teachers and schools demanded by professional training. (pp. 277-278)

She addresses at some length the challenges faced by teacher education in the university context:

- Low status for teacher education, not only within the university, but often within faculties of education, resulting in low priority being placed on it. If teacher education programs in general have low status, field experiences have even lower status, usually being delegated to clinical staff who have little standing or involvement in programs.
- Relatively low levels of funding, with limited access to additional funds, often resulting for staff in heavy workloads, large class enrolments, and insufficient time to work in clinical experiences or to develop relationships with schools

and teacher candidates. "Universities have long treated teacher education as what has come to be called a "cash cow" Labaree, 2008, p. 300).

- Traditional university program structures that fragment teacher education programs into isolated courses and field experiences. The time pressure for other priorities in the university context also works against efforts by staff to try to integrate programs.
- Traditional teaching approaches of transmission of information that equate teaching with telling, often exacerbated by large and anonymous course enrolments.
- Limited time in some program structures that fosters superficial curriculum and works against extensive practical experiences.

This final issue is of particular importance within the Canadian context in which one- and two-year post-baccalaureate programs are the most common approaches to teacher education.

In a similar vein, Beck and Kosnik (2006), in their survey of strong teacher education programs based on social constructivism, also address clearly the myriad challenges faced by those programs in developing and implementing such approaches. They include:

- The time and effort in working collaboratively with schools, building community among teacher candidates, and integrating program efforts, resulting in heavy workloads for teacher educators.
- The demands of dealing with the complexity and intensity of relationships—with schools, with candidates, and among candidates—resulting in a need for strong interpersonal skills.
- The difficulty of finding suitable staff who understand and can practice these alternative approaches, as well as living with the lack of valuing and even outright skepticism within the university context about these alternative approaches.

In addition, Labaree (2004) highlights the issue of research within the university context, a role which can work against the professional mission of teacher education programs. He points out that this issue is of particular danger at the higher end of the academic hierarchy in research-intensive universities where priority for faculty to engage extensively in research can be very strong and work against so many of the ways toward the strong teacher education programs that are discussed above. Darling-Hammond (2006) raises a similar concern about teacher education in research-intensive universities, even when they have been able to develop a strong teacher education program. "A question frequently posed and not yet answerable is whether construction of a high quality teacher education program at a prestigious research institution reflects a sort of Camelot in higher education—a magical place at a serendipitous moment in time—or if it is ultimately sustainable" (p. 301).

Finally, Russell (2009) addresses two additional barriers to reform in our tradition of teacher education research, which led him to conclude that while reform of teacher education is possible, it is not likely. The first issue is that teacher educators' focus for program reform tends to target every aspect of a program—except the individual teacher educator's own practice and expertise, a lack which self-study of teacher education practices seeks to address.

This issue is compounded by a limited research interest in the key question of how people actually learn to teach—and thus a lack of knowledge on the part of teacher educators on how best to foster that process. The second issue is that teacher education programs rarely address the deep-seated beliefs and assumptions about teaching and learning that candidates developed from their long "apprenticeship of observation" (Lortie, 1975) as pupils in school, thus leaving those beliefs and assumptions relatively untouched by a teacher education program. In addition, teacher educators suffer from their own "apprenticeship of observation," having experienced teacher education programs themselves. The result is a tendency to reproduce what they experienced themselves in university and a concomitant difficulty in envisioning alternatives to the status quo of teacher education.

In summary, these issues that are specific to teacher education programs echo Schön's (1987) concerns about the challenges generally faced by professional programs that are situated within the university context. These programs tend to be based on a scientific method of researching professional practice, codifying the results about good practice into a set of guidelines to be followed in practice (provided to students in course work), and then providing students with later, and usually more limited, occasions to apply those guidelines in practice situations. He goes on to posit that such an approach cannot discover, teach, and help students apply all that proficient professionals need to know and be able to do in order to practice their profession competently, and thus are generally ineffective. Schön attributes this unfortunate trend to the gradual inclusion of professional programs within the university and the professions' subsequent need to appear to the established components of the university as scholarly and rigorous in their training of future professionals, in order to justify their place in the university. He also sees this situation as the cause for the crisis in confidence in much professional training, including teacher education, at the time of his writing in the mid-1980s.

However, notably and optimistically, Darling-Hammond (2006) also documents how the exemplary programs which she analyzed have been able to overcome many of these challenges thus far, though such results are hardly guarantees of success for other programs. The institutions that faced the fewest challenges were those in which teacher education was quite central to their historical mission and deeply embedded in their culture (for example, Alverno, Bank Street, Wheelock). These tended to be smaller, and usually unique, institutions devoted to teacher education. On the other hand, the challenges to creating high-quality teacher education programs were much greater in "the most resistant institution: the research university" (Darling-Hammond, 2006, p. 284). Yet, even in some research-intensive institutions that were resistant to teacher education, it was possible (if not easy) to create high-quality programs (for example, the University of California at Berkeley, the University of Virginia). What seemed to make this shift possible was a combination of two key elements. First was outside pressure for reform, such as the calls for reform of teacher education in the 1980s (Holmes Group, 1986; Carnegie Task Force, 1986; Goodlad, 1990) or regional professional concerns. Second, and perhaps most important, was the commitment to high-quality teacher education from top administrators within the university—presidents and deans—seen as part of the university's obligation to society. The commitment of these top administrators also had to dovetail with the interests in teacher education of a critical mass of forward-looking staff. Key elements in the university infrastructure, such as incentives, staffing, and so on, were re-aligned with this new commitment to teacher education. In some cases, the nature of university research was revised to fit with the new priority on teacher education. This fortunate confluence of factors in these institutions led to the development of whole new models of teacher education and

opened new relationships with other units in the university as well as with local schools and professional organizations. The result was a higher status and reputation for teacher education within the university and new partnerships with the local professional community.

Yet Darling-Hammond is also quick to point out that these institutions must continue to work hard in rapidly changing contexts in order to maintain the high quality of their programs. She also notes the fragility of the situation in some research-intensive institutions as personnel change, since the commitment to teacher education often depends on key administrators being in place and enough faculty members interested in working together on teacher education programs. Referring specifically to the Developmental Teacher Education (DTE) program at the University of California at Berkeley, she notes,

> The basic tensions between the demands of a research orientation and those of a professional preparation orientation remain. . . . For a period of time, DTE found research faculty with the ability, inclination, talent, and time to meld these two orientations, but some of the core faculty members have since left the program. A worry persists that DTE may end up being a conceptually sound program with good students but headed for demise because of eroding support from ladder faculty. (p. 301)

Conclusion

There has probably never been as clear a way forward for reforming teacher education programs as there is today. However, there has probably never been a more challenging university context within which to implement those reforms. At least as much attention needs to be devoted to these deep-seated issues and challenges in the university context as will be devoted to the question of what kind of evidence should be used in attempting to reform teacher education programs. Perhaps more attention needs to be focused on case studies of how some teacher education programs have been able to successfully meet these challenges within the larger context of teacher education reform. If reform were as easy as simply applying the results of key evidence, it would probably have already occurred. Without addressing the barriers to reform, even the best evidence available may end up being no more than an "inconvenient truth" for teacher educators who find themselves unable to implement their envisioned reform, despite the evidence.

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Chapter 6

Narrative Inquiry in Program Evaluation: The Epistemological Territory of Contested Teacher Identities

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This chapter reports on how a narrative inquiry approach to teacher education program evaluation can offer rich insights into candidates' teacher identity development. Data were drawn from the reflective entries of teacher education candidates in an on-line, interactive journal for a Foundations of Education course during an after-degree B.Ed. program in Atlantic Canada. Findings revealed the struggles of the "contested self" that occurred in the borderland of "pre-service" that situates the teacher education candidate between role of 'student' and 'teacher'. Analysis of the entries created a series of snapshots of the challenging epistemological journey of developing an identity of 'teacher'. Narrative inquiry proved to be an appropriate and effective analytic approach to understanding the epistemologies related to identity transformation of pre-service candidates as they lived the course and the program. We conclude with the assertion that narrative inquiry offers not only deep insights into individual pre-service teacher identity development but also a rich and thick understanding of the complex processes of becoming of a critical, creative curriculum maker.

Introduction

In this chapter we offer the data and findings from the first phase of an after-degree Bachelor of Education program review situated in an Atlantic province. As we moved forward with our own program review mandate to understand the impact of the program on our graduates, we began to entertain the idea of describing our perspectives and methodology so as to offer a framework for program evaluation that is true to the specific contexts and goals of the program while providing a basis for comparison across programs (Patton, 2002). Initially we situated ourselves in the participant-oriented program evaluation approach which intends to be "responsive" so as to empower the evaluation users to make informed decisions (Fetterman, 2002). It was important to us to include and attend to all program stakeholders so as to assess, understand, and move toward greater program coherence for all involved but we wanted more. We continued to ask, "What counts as evidence in teacher education program review?" and took to heart Stufflebeam and Shinkfield's call (2007) to evaluate the program evaluation for its strengths and weaknesses so as to improve it. Through this analysis, we confirmed that what counted most to us was our own teaching. Therefore, we sought to explore the mental,

emotional, physical, moral, ethical, even spiritual processes of what transpires in our classrooms as part of the lived experience of becoming teachers in our program. We agreed with Wiggins (1992, p. 9): "We must be more critical in our diagnoses of problems and how problems change as we vary the paradigms used in the diagnosis." This necessitates systematically confronting and challenging existing paradigms, shifting paradigms, and reassessing paradigms lost". Petra Munro Hendry, drawing on the tradition of narrative *as* inquiry, provided a powerful argument. She reminded us that we ask questions in an effort to understand the world, to make sense of our observations and experiences . . . "Narrative is how humans make meaning" (2010, p. 72). Hendry explains that all inquiry has narrative as its foundation but there are three spheres of inquiry: the sacred, the symbolic, and the scientific. Each sphere takes a different approach to the nature of knowledge, the aim of the inquiry, and the criteria for the results. We situated ourselves in the symbolic paradigm because we wanted to listen to our students in new and different ways in order to fully understand, not just what they are learning, but who and how they are becoming teachers. Our questions for the program evaluation became, not "What have our students learned?" as much as, "How did/do our students experience the program, i.e. our teaching?"; "How do we interpret their experiences?"; "Who have our students become?" and "How did they become who they are now?" We now argue for a stronger role for narrative inquiry, as a relatively untapped approach to program evaluation, to provide a rich source of insight into how the program values and intentions are lived and manifested in our preservice teachers', and our own, practice.

Research Design: A Narrative Inquiry as Program Evaluation

In our research and teaching we are interested in how pre-service teachers' stories, when they are written in the immediate contexts of teacher education, have particularities and nuances of theory and practice which lend to the ongoing discussion about how to disrupt and rethink the theory/practice divide (Clandinin & Connelly, 2000). By inviting pre-service teachers into dialogue about their present realities, and then setting out the task to story their experience and growing knowledge, we believe that what emerges is an enriched understanding of lived experiences, and that the pre-service teachers' narrative representations result in an orientation to theory and practice that is a kind of consciousness raising. This aligns with Boardman (1991) who explained that participants' understandings of the past are not separate from their understandings of the present (p. 7). As pre-service teachers move through their coursework activities to their practicum placements, their past and their present understandings intersect and overlap (Lawler, 2003). How this carries forward into the daily details and thinking processes is of ongoing interest to us as researchers. Davis and Sumara (2008) noted that consciousness raising involves "helping people to understand how they are often complicit in their own oppressions" (p. 172). This seems particularly true for pre-service teachers, who are between institutional expectations, in between roles, and often in between careers. We questioned whether they feel stuck in between, or whether this nomadic space, full of a variety of "episodes which make up the plot" of storied lives, can be mined to reveal the transformational process of developing an identity of 'teacher' (Lawler, 2003, p. 249). Such realizations make the work of teacher education research immensely complex, and it is through

narrative that we hope to follow some of the threads of that complexity. Following Bruner (1985), we agreed that "narrative is concerned with the explication of human intentions in the context of action" (p. 100). From the range of qualitative approaches (Denzin & Lincoln, 2005) each with different epistemological underpinnings, we chose to work in narrative because we felt it would be responsive to the subtle nuances and shifts of data (Biesta, 2010; Clandinin & Connelly, 2000). Participants' lived experience is not easily defined or categorized in traditional thematic analysis which follows from scripted questions. According to Lofland, "to capture participants 'in their own terms' one must learn their categories for rendering explicable and coherent the flux of raw reality. That, indeed, is the first principle of qualitative analysis" (Lofland, as cited in Patton, 2002, p. 21).

Conceptual Framework

As the assignments for coursework and practicum became the data collection procedures, it was important to situate those procedures within the overarching philosophy that incubated our work. The conceptual framework for the evaluation proceeded from the foundations of the philosophy: reflective practice, constructivism, and teacher candidate identity development.

Reflective Practice

Since Donald Schön's (1983) The Reflective Practitioner, teacher education programs have been employing the art of reflectivity as a cornerstone of self-analysis that promotes self-efficacy for decision making in complex classrooms. Teacher education programs have adopted guided reflection narrative genres (including autobiography, life history, family history, contemporary and historical narratives, etc.) for interrogating deeply help beliefs, making sense of current experiences, and applying new knowledge to practice (Darling-Hammond & Bransford, 2005). Given the wide-spread use of narrative reflections in teacher education, it seemed sensible to interrogate those assignments for what they could reveal about pre-service teachers' growth and development. It was also important to assess the effectiveness of reflective assignments as a pedagogical approach to teaching about teaching. Following Lawler (2003), we assumed that "texts, are not simply unproblematic 'reflections' of some pre-existing reality, but work to produce social reality" (p. 44).

Constructivism. As with many other contemporary teacher education programs, our courses and practicum assignments, activities, and expectations follow from a constructivist philosophy (Darling-Hammond & Bransford, 2005) Vygotsky's ideas of mediation, the language-thought dialectic, and the zone of proximal development informed both our teaching and our research and analysis (1978).

Identity Development

Also, we drew on narrative to track and understand the turns in our student teachers' identity development (Polman & Miller, 2010; Wortham, 2006). As Lawler asserted, identity "is not something foundational and essential, but something produced through the narratives people use to explain and understand their lives" (2003, p. 250). The reflective assignments required

throughout the program offered a view of how candidates interpret their pasts, grapple with the present, and create a teleos for the future. In other words, we might understand who they have been, how they struggle with becoming, and foresee who they may be. Wideem, Mayer-Smith and Moon (1998) offered a review of research on teacher education where they established that many teacher education programs "have little effect upon the firmly held beliefs of the beginning teachers". Programs that were successful seemed to "build upon the beliefs of preservice teachers and feature(d) systematic and consistent long-term support in a collaborative setting" (p. 130). In order to modify or change beliefs it is first necessary to discover the initial beliefs of the preservice teacher and create ways to understand, follow, and engage with those beliefs so as to influence them. Beliefs are the foundation of identity (Polman & Miller, 2010). Therefore, it follows that a more careful and systematic approach to the analysis of reflective assignments would offer rich and important insights into preservice teacher identities. Through a careful analysis of candidates' reflections in the Foundations class we hoped to follow the stories that reveal ideas and events in the course that may have impacted those trajectories. We also assumed that the Foundations course could not be isolated from the rest of the program, nor from the life of the student as a whole.

Narrative Inquiry

We employed a narrative inquiry approach to program evaluation as it allowed us to remain within a theoretical milieu of constructivism and as an appropriate approach to analyzing the narratives of our own and our candidates' reflections on coursework and field work. Narrative inquiry, then, created a coherence in our own lives as the teachers and researchers where we could live the program evaluation process while being true to our own personal convictions of 'theory into practice' even at this peripheral, macro level of our role as evaluators (Lawler, 2003). We explore the promise of a narrative inquiry approach for program evaluation to provide the more subtle and nuanced data needed to understand how the program is experienced by the candidates, how it contributes to their teacher identities, but also how identities change as program development progresses. As an organic program evaluation process, narratives allowed for the dynamic dialectic of change to be captured. We sought to capture the storied reflections of the candidates as they authored their developing professional identities. We believed that the candidates' reflective narratives created during this process could and should be utilized as thick and rich description of identity transformation as candidates live the program and we evaluated it (Clandinin, Huber, Huber, Murphy, Murray-Orr, & Steeves, 2006; Clandinin, Pushor, & Murray-Orr, 2007).

Context

Program context in teacher education matters (Crocker & Dibbon, 2008; Wideen, Mayer-Smith & Moon, 1998). Context also matters in how "people make an identity" where "identity is not isolated from the social world: rather, it is intimately bound up with the social world" (Lawler, 2003, p. 245). The program in which we serve is situated in Atlantic Canada where the majority of the local community is white, working class, anglo-/mono-lingual. The main industries include farming, fishing, and tourism but an unemployment rate of 13% consistently

reflects the nature of the seasonal work (Statistics Canada, 2010). Approximately 85% of candidates are white, working-middle class, young female candidates from local, rural backgrounds. Three of the 153 pre-service teachers are international candidates. The candidates tend to bring a liberal arts (80%), academic background. Most have enrolled in the Bachelor of Education (B.Ed.) program immediately after receiving their first undergraduate degree. Twenty-one of the faculty are tenured/tenure-track or long term appointments and predominantly are not originally from the province. Another thirty-two sessional instructors and practicum supervisors are drawn from the local public school system. The program mission statement and principles refer to values of aesthetics, equity, social justice, environmental responsibility, life-long learning and global citizenship, critical reflection, self-knowledge, compassion, and innovation. Generally, faculty take a constructivist, inquiry-oriented, activity-based approach to teaching. The twenty weeks of field experiences during the two year program are chronologically separate from coursework. Although it is customary for course assignments to not be required during the practicums, instructors tend to build in reflection assignments focused on or for the practicum. Practicum seminars are required at regular intervals during the field experience. Also, candidates do have the choice of an "alternative practicum" for the second practicum of each year. For instance, senior year candidates can choose a First Nations school in Canada or an International placement in countries including Kenya, New Zealand, China, France, or they might choose an adult English as an additional language classroom at the local college.

The macro context of the program includes pressure to consolidate the current three cohorts (early, middle and senior) into two (elementary and secondary), to reduce the disconnect between theory presented in coursework and the realities of practice in the local public schools, address declining applications to the program, reduce the perceived duplication of and gaps in the knowledge base presented, and improve program coherence. Other sources of pressure for change come from a summit report on the state of K-12 public education by the provincial Department of Education calling specifically for an "evolution" of educational practices toward 21st Century knowledge and skills (2010, p.2) in the province. In addition, the publication of recent Organisation for Economic Co-operation and Development PISA scores (Statistics Canada, 2010b), as interpreted by the Department of Education, reified the need for a university role in educational reform of local schools.

This description of the context of teacher education reveals the incredible complexity of the environment in which we live and work and try to improve. The daunting challenges for the program and our work demand not only action on the part of the faculty but also structures for program development and evaluation.

Participants

The students contributing to this data set were one cohort of twenty-one first year B.Ed candidates in their fifth year of university education. Twenty candidates were young women who were originally from Atlantic Canada. One student was visibly an Asian international student. Many students had traveled as tourists, some had lived abroad on an exchange or other educational experience. The majority of the students reported that after graduating they planned to live and work in or near the community in which they grew up.

The instructor was a White, middle-aged male originally from Atlantic Canada, serving as assistant professor teaching courses in language and literacy, curriculum theory, and global issues. He is well-published and is established as a successful author and poet at the university and in the community. His career has spanned 17 years in education, beginning as secondary English teacher before moving to educational administration and higher education.

Course Goals

The aim of the Foundations of Education course is to familiarize candidates with the variety of social, epistemological, economic, political, and cultural influences which have come to form the dominant beliefs about K-12 schooling where the school is understood as an arena for power struggles between dominant and subordinate social groups. (Appendix A provides list of the required readings.) Candidates have the opportunity and structure to examine curricular and pedagogical theories, strategies of inquiry, school systems and structures, and day to day teaching practices as a way to become "wide awake" and to "see as strangers" (Greene, 1973). Thus, the inter-relational dynamics of power, discourse, people, and place in current educational contexts were interrogated. The course is also designed to surface why marginalized candidates do not necessarily readily embrace the possibility of transformation in the classroom (Freire, 1970). Hence, an understanding of resistance, within critical pedagogy, encompasses a realization that expressions of resistance are expected, multidimensional, and significant.

Online Interactive Reflective Journal

For a full semester, each participant wrote in an online reflection journal first in the Foundations of Education course. The course required candidates to read two or three articles each week and then discuss, in class and on-line, their negotiated/contested interpretation(s) of the readings. In the Google software "google docs", candidates were responsible for creating one "slide" for the website that explored and extended ideas from one of the articles, compared and contrasted theoretical influences, and/or applied a new learning to personal situations in a written statement. Candidates were also required to respond to two more slides created by their peers. Suggestions for creating and responding to the slides included: tell a counter hegemonic story; rebut a teaching strategy that is undemocratic or "token democratic"; interpret a quotation from the reading; reposition a question--Is this the right question? What should have been asked?; share a thoughtful, civic activity for candidates; identify knowledge that is assumed neutral but show how it is not; share what you continue to question, trouble, or resist. Assessment was conducted with the use of a rubric where the terms included: breadth of reading and reflection, depth of reading and reflection, judicious and representative selection of quotations, thoughtful and creative transmediation of ideas, furthering discussion, dialogue, debate, and conversation. Broad, open-ended questions were posed to the candidates such as, "What rings true to you in this article/experience?", "What is your interpretation and response to this idea/event?". We encouraged participants to digress and follow the direction the writing was taking them. They were asked to write freely, in any genre, on their day-to-day

experience of work and life. We agreed with Ricoeur (in Lawler, 2003, p. 249) that "identity is something which is produced through narrative" (emphasis in original).

Narrative as Data

Specifically, the data set we discuss in this chapter as an exemplar of narrative inquiry for program evaluation consists of the series of text-based "slides" posted in Google docs from the Social Foundations of Education course throughout the fall semester of 2010. Data for the study included (a) the narratives and reflections of students as constructed for the on-line interactive journal as experienced by the cohort of twenty-one first year students, and (b) the responses of the course instructor who posed open-ended prompts, questions, and reflections in the margins. These prompts followed Meyer's (2006, 2008) approach to "living inquiry" by asking participants to focus on their daily habits of engagement within the context of place, time, language, self/other, and what matters to them.

Procedures and Processes

By holding the complexity of living the program as candidate and as teacher educator, we sought to understand our program 'landscape' through our own and our candidate's stories; how the method of narrative research interacts with our lived lives and thus influences the candidate and how her stories intersect, mirror, and contrast with those of other courses (Clandinin & Connelly, 1995; 1996; 2000; Clandinin, Pushor, & Murray-Orr, 2007). As Lawler suggests, we attempted to describe "the usefulness of narrative inquiry for connecting the past and present of the social actor, and for connecting those two apparently ever-divorced categories - 'the individual' and 'the social' (2003, p. 246) as they and we grapple with the purposes, ideologies, and values we espouse (Biesta, 2010). The question is not, "Do candidates change? What are the outcomes?" but "In what ways do we and our candidates grow and develop and transform our individual and collective identities as we live the program?" and "In what ways does the use of narrative as a methodology provide rich information and deep insight for program review or evaluation?"

The research focus we addressed was, "What kind of knowledge is being produced when conceptual narrativity is used?" (from Lawler, 2003). Results did indeed show how the reflections "thickened" pre-service teacher identity development (Wortham, 2006). Narrative inquiry provided a rich approach to assessment of on-line reflective assignments produced in the course. The analysis provides insight into how teaching identities were forged in and through this dialogic environment. Narrative threads revealed how the borderland of "pre-service", that places the candidate between 'student' and 'teacher' was negotiated (Polman & Miller, 2010; Wortham, 2006). It is this epistemological territory that we sought to explore (Biesta, 2010) for what it could reveal about pre-service teachers lived experiences of the program as a form of program evaluation. We wanted to understand more fully how the teacher education candidates' identity trajectories evolve in the teacher education program and how these trajectories inform us about this particular program but also offer ways of understanding teacher education programs in general.

Data Analysis

The analysis of the texts posted on the slides was divided into four stages. First, co-construction of analysis happened during the construction of the slides as the students and the professor responds to articles with their own interpretation of what the content means to them. Teacher narratives are constructions that give meaning to events and convey a particular sense of experience (Carter, 1993, p. 8). "These stories capture, more than scores or mathematical formulae ever can, the richness and indeterminacy of our experiences as teachers and the complexity of our understanding of what teaching is" (Carter, 1993, p. 5). Second, we read and re-read the slides and wrote field notes regarding the connections and complex interrelations amongst key ideas, issues and themes (Martin, 1986) and captured our "aha" moments as they occurred (Mosak, 1995, p. 75). Third, we engaged in "creative" analysis to bring themes into coherence from a final vignette of students' writing. Short, Kauffman, and Kahn (2000, p. 169) suggest this allows for discoveries beyond the original research questions. In a future paper we will offer findings from the fourth stage of analysis where we constructed student profiles reflecting a holistic conceptualization of student "identity" that was "produced through narrative" (Ricoeur in Lawler, 2003, p. 249).

Findings and Interpretations

The analysis ultimately revealed a complex, transactional interplay of communications that can be characterized as a search for approval, autonomy, legitimacy, success, and belonging as the preservice teachers developed their teacher identities. As actors in the social environment of the on-line journal, the preservice teacher candidates were revealed as multifaceted, complex personalities that had present, past, emergent selves that interacted with the present, past, emergent peers. Other actors featured in the on-line community were the article authors, the instructor, candidate's own current and past teachers and principals. Perhaps the most powerful actor was the candidate's imagined self -- the future teacher they hoped to become. The landscape of the discourses revealed the movement back, forth, and around the barriers, challenges, joys, and disappointments, fears, and epiphanies of new knowledge assimilated and rejected as their identities emerged. We ultimately conceptualized the google doc slides as snapshots of tension and negotiation with self and others along the journey of the "contested self".

Tensions with Critical Reflection

Throughout the course, but perhaps more so in the last few weeks, we saw students responding to the readings and with each other in a critical stance. One example of this is where, in responding to the article one of the student discussion leaders selected the following quote to generate discussion: "Now, more than ever, the everyday lives of young people are orientated by popular/corporate culture texts and discourses, and it may be irresponsible for educators to deny or suppress these influences" (Savage, 2008, p. 66). The comment she wrote was more than acquiescence to course goals, but a more confident reframing of the reading. She wrote,

> I think that, in a way, by ignoring the influence of popular culture in their classrooms, teachers are in fact being a bit irresponsible. I don't think, however, that it is something which is deliberate. What teacher would choose to put their students at a disadvantage? I think that the point the author was trying to get at was that by not dealing with pop culture, teachers are leaving students open to its dangerous influence. By addressing popular culture in their classroom and giving the students the space and the tools they need to critically examine these influences, teachers can create more of a consciousness in their students, and hopefully open up their minds to change. It must go beyond simply studying what is interesting for students to analyze that material in a way which will be meaningful for the students and push them to not just accept the information which gets fed to them.

So, as the pre-service teacher responds to what is meaningful to her in the article she begins to shape the on-line interaction patterns toward a more critical reflective stance. We see in this example, the pre-service teacher responding in analytic and thoughtful ways. She advocates for conscious decision making.

Tensions with Autonomy

The power dynamic must always be recognized in the classroom (hooks, 2006). Notably, there was a complex interplay within and between the candidates between seeking approval, legitimacy, affirmation, while also testing the boundaries for autonomy and assertion and at times, resistance. Sixty percent of the pre-service teachers strongly identified in their narratives how they seek approval from course instructors, underestimate themselves, and solicit others' opinion to legitimize their work or ideas. The following response reveals how a young woman struggles with what it means to be "wrong" as a student and how some teachers know the "secret" of how not to embarrass a student who has given a wrong answer. She is not sure yet sure that she knows the 'secret' for herself. She does not, in this story, identify with being a teacher,

> I know that it made my day (and still does haha) when I received praise from one of my teachers. I'm left in a good mood all day from it! Something else I liked that I noticed a couple of my history professors do is that, even if you get a wrong answer, they appreciate you for trying and for speaking out in the class. Then they have somehow mastered letting you know the answer is wrong, not by straight out telling you, but somehow let you know in a secret kind of positive way that doesn't embarrass you. Instead, it encourages you to keep speaking in class and giving (If that makes any sense!).

A lack of confidence is expected at the beginning of the first semester of the first year of the B.Ed program when students have not yet engaged in the practice or scholarship of teaching. The normative nature of the interactions affirmed the power structure to control the interactions around the vocabulary and concepts offered by the articles and highlighted by the instructor but these norms were also likely brought to the course by the nature of contemporary teacher education candidates. For instance, Sleeter (2004) and others have

pointed out how current teacher candidates bring values and norms of white, middle class, women to the work of teaching encouraging the tendency to "be polite" and "nice". By noting the niceness of the narrative episodes we do not mean to pathologize our candidates but we recognize that the women candidates have limited (un-stigmatized) social narratives for their own movement into positions of power and authority (hooks, 2006). Especially in the early weeks of the course candidates tended to agree with the author, the instructor, and with each other in a way that assumed appropriation of the vocabulary and concept(s). We tended not to see the candidates take the stance of 'teacher'. Calling on Vygotsky (1978), we hoped that the socio-cultural process of experiencing the conceptual language would serve as a first phase of internalizing that dialogue as personal knowledge. One candidate expressed the struggle this way: "[We] are constantly looking for a teacher's input or opinion. I find myself looking for approval when it comes to my education." While not a direct causal chain, candidates also recognized how the lecture-assignments-and mark-giving structure represents a "chain of command" style of learning where, "when you take down all the facade the reality is that schools really do encourage conformity." They saw themselves caught in this structure in university classes. The route of least resistance meant, "Don't fight it, just do it" although there was a sense of affront when, "We sit and wait to be told how to do everything the 'right' way. If we try something 'different' we are not listening to what we are being told or going against the 'norm'". There was also resistance to power in the classroom revealed when the candidate continued,

> I believe as teachers this is exactly what we should be working against…We need to create a new understanding of what it means to be a learner. Express how it is actually ok to try new things… It is through experience that you become an expert not through being told how to do something.

In an excellent example of "making the strange familiar and the familiar strange" (Erickson, 1986), one pre-service teacher's adoption of the term "surveillance" helped others shift their view on classroom management styles. Pre-service teachers became increasingly concerned about "being under a microscope" (or putting children in similar situations) and needing to perform a kind of obedient role of good student in order to feel successful. What they wanted was to "experience their individual selves, rather than having someone tell them, No!" They noted that being "denied" an experience, particularly to avoid risk, was an avoidance of learning. Sixteen of the twenty pre-service teachers were highly engaged in a discussion where they expressed a desire for more freedom to take control of their learning. Limitations on this freedom via monitoring, they felt, should be unobtrusive:

> This idea of constant surveillance seems completely absurd to me. Of course children need to make their own mistakes. The most valuable things I've personally learned in life, are from times that I stepped outside of my comfort zone, tried something, failed, learned from my mistakes, and figured it out for myself.

Not surprisingly, when the position of the article resonated with candidate's personal past or current experience, the concept, in this instance hegemonic structures, were powerfully reinforced. Lawler (2003 p. 248, quoting Hacking, 1994, 1995) refers to this process as "'memero-politics'--a process by which the past is interpreted in light of the knowledge and

understanding of the subject's 'present'". It might be assumed then that the positioning of power relations motivated the acquisition and assimilation of the vocabulary, concepts and values presented as candidates engaged in the social arena of responding to slides posted in the Google docs. We see the candidates begin to question power structures and control measures in teaching and learning.

Tensions with Social Justice

The journaling episodes were also contained within the structure of the slide which offered the public narrative to which the personal narratives could connect. The public narratives are "narratives which are 'attached to cultural and institutional formations rather than the single individual (Somers and Gibson, 1994, p. 62 in Lawler, 2003). This personal yet social context defined and positioned the responses directly in relation to a key concept from the article selected. The articles posted as required readings reflected themes of social justice, equity, and the competing agendas of reform. (For the list of readings see Appendix A.) Candidates responded to the author, to each other, and to the instructor as they engaged within a safe container that allowed and encouraged challenges to the status quo. The content often gained momentum through the recursive and dialectic turns that built greater commitment toward issues of social justice. As Lawler (2003, p. 252) reminds us not to "underplay the workings of power in the social world: it is important to stress that public narratives are powerful in structuring the kinds of things that can be said (and, conversely foreclosing certain kinds of story)". A good example of this comes from a slide addressing the quote from Cochran-Smith's (2001) "Learning to Teach Against the (New) Grain",

> A major goal of the project of teacher education for social change has been helping prospective teachers think deeply about and deliberately claim the role of educator as well as activist based on political consciousness and on ideological commitment to combating the inequalities of American life. (p. 3)

The ensuing discussion helped candidates make sense of their experiences and assumptions within the online conversational space. They were particularly adept at picking up discourse cues which invited dialogue and debate. Over time, what became more transparent to them was "school" as created, contextual, social structure. Seeing that, curriculum questions of what knowledge is of most worth, soon became whose knowledge is of most worth, and who benefits from the ongoing production and sanctioning of that knowledge. We see this as one candidate begins the discussion with,

> The most effective teachers in my life are the ones who fought with every fiber of their being against conforming to standard expectations. They were the teachers I learned the most from, and had always had the most respect for. Most importantly, these teachers listened to us, and pushed the limits to provide us with an education that … brought out our skills and abilities. … It should be about the kids. Period.

Joining the discussion, other candidates recognize that it takes "ambition" and "risk" and "innovation" to "get our passion across to our students." Much easier would be to retreat the sidelines of standardization:

> There are a lot of 'robot' like teachers out there who do not have the ambition to question common practices and think that there is no need to. I think that we, as new teachers, have to make sure we keep our individuality in our teaching.

When candidates begin imagining their practica in local schools, we have seen how they begin to exercise agency in their reflective comments. They have begun to think and talk like teachers working for equity and social justice. As a community of learners they have deconstructed and reconstructed issues of social justice within the course structure that provided a kind of "apprenticeship" for sharing, learning, and growing both in the grasping of concepts but also in a sense of agency. The structure of the course, reminiscent of Lave and Wenger's (1991) "legitimate peripheral participation", with its delimited pattern of communication and the professor's guiding comments created a "community of practice" where the newcomers did move toward old-timer status. We see this in reflections like the following:

> The teacher does not necessarily have to provide the knowledge to the students, this is something I think we have been talking about fighting against. Instead, teachers can provide their skills and expertise in searching for the answers, guiding the students as they both work together to learn something new and exciting. It is this collaborative environment which will nurture the kind of learning that we have been talking about that does not involve the mere passing down of knowledge but instead encourages interest, enquiry and discovery. One that empowers the students.

One candidate challenges herself and her peers by illuminating how they too currently conform to the status quo but ends with inviting a critical stance.

> While I was reading your comments, I found myself thinking . . . about the process in which to construct a paper I found to be automatic for myself: Go to the library, read books, take notes on note cards, sort note cards, write the paper, done. . . (I)t's very easy for students to quickly figure out a method of studying or cramming (usually memorizing), and use it for every single course, only to forget it later because there was no critical thought as part of their study regime.

The discussion turns to a call to act together for strategic, even subversive, change. One candidate wrote,

> I think what the author is trying to say is that if we can get jobs without succumbing to the rules of the school system, if we are tricky about it. I got the impression that, in a way, she was saying we do not need to be loyal to a system we feel is unjust, we just have to pretend to be. . . . But more importantly we need to be able to creatively find ways to rise about the parts that do not work.

Another candidate invokes the Trickster archetype (Garrison, 2009) to make a rationale for resistance and change from the status quo:

> Tricksters are capable of some pretty creative workings. It is the trickster that works against the grain and tries to develop ideas and projects that involve ideas

that society does not appreciate or does not take the time to notice. . . We need more teacher's to think along the same lines of the trickster to overcome standards that are placed upon us, allow us to express our opinions and empower our thoughts without feeling oppressed or not good enough.

Given these actors then, the narrative episodes took place within a power hierarchy and within the context of course objectives. We saw themes of equity and social justice presented in the articles accepted and reinforced within this structure. The personal narratives in this social place were enhanced and fortified by the spiral of ideas and affirmations. The candidates garner a sense of personal and collective power as they test ideas within the structures of the discourse. The power of personal anecdote helped select and relate to a concept offered in the article, and then to explain and affirm the sense of it. As candidates assimilated and then accommodated the now "experience-tested" and "sensible" concepts, they are thinking like teachers to problematize practice and then create a more "relevant" and "just" curriculum for students.

Tensions with Reform

The first year students continued to struggle with the tensions between traditional, deficit approaches to teaching and the constructivist pedagogies they were exposed to in the program. This struggle also contributed to a sense of doubt regarding their ability to enact student-centered pedagogies. One student wrote she hopes to "have the freedom when I am teaching to periodically throw away the formula to teaching and go with what I feel is right at the time". She referred to a quote from Teaching That Breaks Your Hearts: Reflections on the Soul Wounds of a First-Year Latina Teacher (Carrilljo, 2010),

> These days, I drink from coffee mugs of inked platitudes- Home is where the teacher is and To teach is to touch lives forever--triggering memories of days with migraines, bills gone unpaid, encounters with mind-boggling, within-the-box definitions of human development, and a blitzkrieg attack on teacher dignity.
> (p. 79)

The lead response begins the turn away from concepts of "reform" that are situated "within the university" and toward the realities some candidates experienced in the practicum which apparently demanded and justified collusion with the transmission-oriented, even deficit-oriented practices. As they look toward being a teacher, these realities loom large as reflected by one candidate's comment,

> I think he's forgetting an important part: to note the wonderful and positive things that do happen within the school. School systems may follow standards and sometimes strip teachers of their teaching personality and philosophy, but I still believe that there must still be some things to smile for; some glimpses of hope. To see a student smile because they've understood something I've taught them, for me, that'd be a great feeling. . . Teaching can't be an entirely negative thing! Why would we be here?

The next turn in the online dialogue states the dilemma, the inner struggle, which is to situate oneself between the university narratives of reform and the teacher narratives recounting reproduction.

> With practicum nearing very close I think many of us are having some anxiety for various reasons. I myself am worried that I will come face to face with exactly what this quote, and the entire article, describes. We hear plenty of the warm and fuzzy aspects of teaching, but what if the other realities make these things meaningless? I always comforted myself with the notion that I would rise above the within-the-box ways of teaching that we have been criticizing and teach the way I felt was proper, but if the staff at the school are acting unsupportive I'm not sure how long I could continue in that working environment.

This struggle creates a discomfort, perhaps dissonance, where candidates acknowledge the need for updated practices but fear they will be marginalized if they teach "against the grain" as a new member of a local school faculty. They struggle toward what it means to be a teacher here and now rather than a hypothesized future. Understandably, it is "scary" to be the brunt of a "blitzkrieg attack on (their own) dignity" by some of the veteran teachers they might encounter:

> I was touched by this quote too Nancie. I read it out loud to my mom when I came across it. What really struck me was the "attack on teacher dignity". The scary thing is the attack he's describing is coming from other teachers and administration! How can they forget so quickly what it's like to be a new teacher? Wouldn't the memories of bad days (or bad days they are still experiencing) lead them to sympathize with each other? Shouldn't they join forces and learn from each other? Help each other tolerate or at least survive this profession that so many seem to run screaming from in the first few years?

"Surviving" is culturally situated in the context and history of teaching as they experienced it as students and then as teacher education candidates. The identity trajectories are re-grounded in 'how school has always been done around here' and socially mediated by the program practice of sending candidates back to the schools they grew up in as the site of their apprenticeship. The community of practice is re-established as that of the traditional school faculty. If one is lucky enough to land a "job" then the role is "to look good for the good". Reproduction, rather than innovation, is understood as the only avenue to employment and capitulation is the only option for survival. To alleviate the dissonance one must believe that teaching for the status quo is really "for the good". Candidates intend to look for those "special moments" and a child's smile as reward enough and evidence enough for the rightness of going along. Ultimately it is the hegemonic narratives of schooling, as a method of controlling the masses, which wins out. The symbol of success is the smile of a child, not his or her action, agency, or production, but a complacent satisfaction with the panopticon (Foucault, 1984).

Tensions with Curriculum

As the course progressed, evidence emerged that candidates' identities were shifting. They began to assert themselves as autonomous critical and creative curriculum makers (Clandinin & Connelly, 1992; Clandinin et al., 2006). One exemplar of this identity development is offered by a student who choose to comment on Glenn Savage's (2008), Silencing the everyday experiences of youth? Deconstructing issues of subjectivity and popular/corporate. From this article she highlights the quote,

> Popular culture, as its very name suggests, will inevitably exclude. Lewis (1998) supports this sentiment: the popular culture of young people is not about individual voices and identities... popular culture is related to social and cultural group identities, allegiances, and exclusions. At the global level, popular culture is even more removed from the individual expressions of voice and identity since it is produced largely through multinational corporations and disseminated across a wide range of audiences and geographies.

She begins by re-stating the problem of practice:

> The younger generations who follow these media produced popular culture must be taught to critically analyze their responses and reactions to others and ideas that deviate from it. Teachers must use appropriate, varied, and interesting sources of literature to allow for students to see alternatives to what is influencing them daily.

This candidate takes a decontextualized scenario from the reading and links it to her own personal, imagined, practice. She acknowledges the problem of practice presented by Savage (1998) and then engages in creative, critical curriculum making to address the issue. She wrote,

> For instance, have students read about some of where their brand name clothing or footwear is produced. Next ask them to research how the workers who are producing this clothing are treated, paid, and what long hours they work. Using reputable and recognized websites find examples and answers to the questions asked. Next ask the students to provide a solution or alternative to their popular cultural beliefs and practices. An example would be to sew their own clothing so that is unique and individual, differing from others. Allow them to also question why they judge others in their classroom, school, and community who act, appear, dress, and think differently than them. By analyzing the varied and multimedia literature that is introduced, discussed, researched, and gradually assigned as a project, students will be allowed to analyze why they and the popular culture media view difference and individuality as negative. The in-class analyzation will present an alternative and allow students to rethink their views.

Surely this narrative reflects thinking like a teacher -- a move away from "new-comer" to "old-timer", who has a greater sense of autonomy in one's own ideas and purpose. The on-line, interactive journal and it's community of practice offered a "way in" to becoming a teacher (Lave & Wenger, 1991).

Conclusion

In this chapter, we hoped to show that a systematic analysis of reflective assignments from one course can offer thick description of candidate's identity development in a teacher education program. We found the analysis of the interactive journal entries to be fruitful sources of evidence of candidates' identity trajectories as they lived, and struggled in, this aspect of the program. As Lawler reminded us, "These narratives may be fragmentary and partial . . . but can nevertheless tell us a great deal about the person and the social world she or he inhabits" (2003, p. 243). Although presented here as a largely linear progression, the dynamic, transactional, dialectical process of identity formation proved not at all linear. The developing teacher identities were journeys of the "contested self" where candidates moved, confronted challenges, setbacks, epiphanies, wonderings, fears, understandings, and doubts that morphed and forged into identities as critical and creative curriculum makers (Clandinin & Connelly, 1992; Clandinin et al., 2006; Clandinin, Pushor, & Murray-Orr, 2007). As Wortham (2006) pointed out, critical positioning results when multiple, competing perspectives are presented through dialogical discourses. Examination of the dialogic discourse exposed the struggle created by competing forces that come to bear on all of us as teachers. Through this analysis we gained a renewed compassion and appreciation for our candidates and for each other. Framing the on-going development of epistemology in the group as co-construction, we are more able to respond during the life of the course to its changing professional knowledge landscape (Clandinin & Connelly, 1995; 1996). Although we cannot control the shifting landscape we can interrogate it, understand it, and thus more appropriately influence it. Narrative inquiry reflects who are candidates are now, where they have been, and where they are going and it tells us a goodly amount about ourselves as teachers and learners. The data and analysis we offered here represent only the beginning of a much broader utilization of narrative reflections we intend to garner for our program review. We have concluded that narrative inquiry can and should "count" as evidence in teacher education program evaluation. We look forward to sharing our findings with our colleagues and to creating ways to analyze our preservice teachers' identity development across courses and during the practicums. Following Hendry's lead (2010), we rediscovered the symbolic paradigm of narrativity for understanding one part of our program. How much more powerful the findings will be when we look across all programmatic elements to achieve a deeper understanding of our own practice. Isn't that, after all, the purpose of program evaluation?

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APPENDIX A

Foundations of Education Course References

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Chapter 7

The "Black Box" of Teacher Education: The Use of Evidence in Program Renewal in Initial Teacher Preparation

KAREN GOODNOUGH

In this chapter, renewal of an intermediate/secondary teacher education program in a Canadian university is presented. Highlights of the revised program include new content (e.g. diverse learners and inclusion); a change in the scope and sequencing of program courses and experiences; an introductory school-based experience that would be linked to university course work; choice in course experiences in the second semester; and the inclusion of a teacher development seminar that would span the entire program. Decisions in the renewal process were guided by faculty's own practical wisdom and experience as teacher educators, teacher education research and literature, faculty-shared understandings about program content and processes, and policies and practices of the provincial Department of Education.

Introduction

The "black box" metaphor is used to refer to any device, phenomena, or concept that cannot be easily understood or something in which the inner workings are not fully comprehensible to the user. Darling-Hammond (2006a) used the notion of the black box to refer to how little we know about what happens in teacher education programs in terms of courses, clinical experiences, and "how the experiences programs design for students cumulatively add up to a set of knowledge, skills, and dispositions that determine what teachers actually do in the classroom" (p. 11). The "black box" represents, to some extent, how I was beginning to perceive the teacher education program at my university as I assumed a new faculty position in 2004. At the outset of planning for assigned courses, I wanted to know more about how the courses had been conceptualized in the past, how my assigned courses connected to other courses in the program, and the broad goals and vision for teacher education in my faculty. I informally discussed some of these issues with colleagues, but had only limited success in gathering information.

After the first year of teaching in the intermediate/secondary program in our faculty, it became readily apparent through my own experience and informal feedback from students that there were areas in the program that needed attention. While teacher candidates reported many positive things about our program (e.g. high quality teaching, caring faculty), they also

expressed concerns. These resonated with my own experience: the faculty did not have a shared vision for teacher education. I felt we were offering a grouping of courses that had little connection to schools and classrooms, and that our courses were not well integrated. For example, student observation days were not connected in any systematic manner to course work and few courses were connected to field experiences. When an invitation was extended to me by the Dean of the Faculty of Education to become a member of a committee that would review existing programs and propose new teacher preparation programs, I accepted with enthusiasm. This was an opportunity to examine the "black box" and to work towards strengthening our teacher preparation program. The work of this committee continued for two years, starting in 2004, and now, almost seven years later, in 2011, a revised program was approved and will be implemented in 2012. Since serving on this committee, I have become Associate Dean of Undergraduate Programs in our faculty and in collaboration with many others, have the responsibility of implementing the proposed program.

In this paper, I describe the renewal of the intermediate/secondary teacher education program. More specifically, I outline the renewal process in detail and present the evidence used to make decisions about how to revise the program. Decisions in the renewal process were guided by faculty's own practical wisdom and experience as teacher educators, teacher education research and literature, faculty shared understandings about program content and processes, and policies and practices of the Newfoundland and Labrador Department of Education.

Review of the Literature

Many countries are placing more and more emphasis on education as there is a recognition that investments in education can result in improvements for individual citizens and society as a whole. Consequently, reform has been implemented at many levels in education, including teacher education. As Darling-Hammond (2005) suggests, "recognizing that preparing accomplished teachers who can effectively teach a wide array of learners to high standards is essential to economic and political survival" (p. 237). In learning to teach, which can be challenging and complex, Darling-Hammond identified three problems (Darling-Hammond, 2006a). One of these, "the apprenticeship of observation" (Lortie, 1975) refers to how previous learning by teacher candidates as K-12 students results in preconceptions about teaching and learning that may interfere with the development of new understandings and practices as teachers. Second, the problem of enactment arises (Kennedy, 1999). Beginning teachers have to be able to take their understandings and put them into action in classrooms. However, intentions do not always get enacted in classrooms. Thirdly, teaching is very complex; thus, teacher candidates are challenged in integrating many kinds of knowledge and skills to meet multiple goals and to inform decision making about how to structure learning for students with diverse learning needs. These challenges in "learning to teach" have implications for how teacher preparation programs should prepare individuals for the first years of teaching.

Calls for changes to teacher education are not new. Many have critiqued and identified a number of weaknesses in teacher preparation. For example, Howey and Zimpher (1989) studied six teacher preparation schools, and based on this research, made several

recommendations to reduce the lack of coherence in programs. Goodlad (1990), in his investigation of 29 universities, reported outcomes such as a lack of peer socialization in programs, teacher preparation being relegated to a very low status, lack of program coherence, and a lack of emphasis on foundations courses. In the Canadian context, as a result of political, economic, and social influences, and the emerging body of evidence about how people learn and how to prepare and support effective teachers (e.g. Bransford, Brown, & Cocking, 1999; Cochran-Smith, Zeichner, & American Educational Research Association, 2005; Crocker & Dibbon, 2008; Darling-Hammond & Bransford 2005), many universities are undergoing program reform and renewal.

If one examines the myriad of teacher preparation models in Canadian universities, it is apparent that considerable diversity exists in the nature of the programs, their structures, and the teaching and learning approaches and strategies adopted. While there is no single best way to organize a teacher preparation program, teacher educators and those involved in the design of teacher preparation programs need to be informed by research about how to best establish programs that offer coherent learning experiences for teacher candidates, thus helping them develop the necessary knowledge, skills, and dispositions to be effective as beginning teachers. Many aspects and components of teacher education programs have been studied, ranging from field experiences to the pedagogy of teacher education to the theory-practice gap. Studies of exemplary teacher education programs are fewer in number. Two recent, comprehensive studies have resulted in insights into how to effectively prepare teachers for the complex world of teaching (Beck & Kosnick, 2006; Darling-Hammond, 2006a, 2006b). Beck and Kosnik (2006) surveyed seven effective teacher education programs. They identified the approach in each as reflecting social-constructivist principles with an emphasis on integration, inquiry, and community. In a recent study of successful teacher education programs, Darling-Hammond (2006a, 2006b) selected seven exemplary programs based on data from a range of sources: a review of the literature, a nationwide reputational survey, interviews with local employers, previous data from surveys of graduates, a survey of more than 900 beginning teachers, a survey of principals of program graduates, and observations of graduates' classroom practices. While the programs varied in design, all shared some common features. The content of these programs addressed three broad themes: "knowledge of learners and how they develop in social contexts, conceptions of curriculum content and goals, and understanding of teaching in light of the content and learners to be taught, as informed by assessment and supported by productive classrooms" (Darling-Hammond, 2006a, p. 83). In addition to the content of these programs, recommendations were made about how successful teacher preparation programs organize themselves and how they have overcome some of the challenges in learning to teach, as described above. Aspects of effective programs include:

1. *Coherence and integration*
   In successful programs, a common conception of teaching and learning exists. Based on this shared conception, there is strong coherence across courses and between course work and clinical experiences. Course work is sequenced carefully, based on a strong theory of learning to teach and is tightly linked to classrooms and work in schools. Faculty plan collaboratively to ensure subject matter and pedagogy are brought together, core ideas appear across the program in courses and assignments, and theoretical perspectives across the program are consistent.

2. *Extensive, well-supervised clinical experiences using course pedagogies that link theory and practice*
   Darling-Hammond (2006a) suggests that successful programs require at least a full academic year of student teaching in which expert modeling occurs under one or more teachers and in which classroom experience is tightly linked with course work and focuses on diverse learners. Furthermore, the connections need to reflect new and emerging pedagogies such as case methods, performance assessments, and action research, thus fostering teacher candidate reflection and providing a context to theorize practice and make formal learning practical (Darling-Hammond, 2006b, p. 307).

3. *Strong relationships with schools*
   The previous suggestions for integration and linking theory and practice rely heavily on "creating proactive relationships with schools that serve diverse learners effectively and develop and model good teaching" (Darling-Hammond, 2006b, p. 300). These relationships are premised on high levels of collaboration among faculty, teachers, and teacher candidates such that strong learning communities are created. The knowledge of the universities and the knowledge of schools need to be connected. "The more tightly integrated the learning experiences of novices, veteran teachers, and university can become, the more powerful the influences on each other's practices and capacity for constant comparison" (Darling-Hammond, 2006a, p. 185).

The Impetus for Program Renewal

The drive for renewal in the Faculty of Education was a result of both internal and external factors. In 2003, two reports were completed. The first, Report of the Academic Review Panel (Memorial University of Newfoundland, 2003), was the result of a required review of our existing programs conducted within the university every seven years. Some of the recommendations generated by the four individuals comprising the panel included: a) That the Faculty of Education revise its mission statement to say specifically how it understands and prioritizes the different roles it is called on to perform, b) That the Faculty of Education should strongly consider streamlining its undergraduate programs so that there is not a plethora of courses and a number of under-subscribed specialized programs, c) That the Faculty of Education should strongly consider taking greater responsibility for the internship as a key part of the program. It was suggested that internship quality be improved through having more full-time faculty involved in the internship and offering significant training of supervisors in the internship.

The second report, Report of the Review Committee Bachelor of Education (Intermediate/Secondary) Degree Program (Faculty of Education, Memorial University of Newfoundland, 2003), involved an internal review of the existing intermediate/secondary program, a consecutive program. The members of this committee, all of whom were faculty, recommended systemic and broad-based changes to the existing program. While the recommendations in this report are too numerous to discuss here, they offered several

suggestions: considering and adopting new approaches to pedagogy, revising the mission statement, creating a shared vision for teacher education, seeking more feedback and input from students, enhancing integration across the program, fostering stronger connections between course work and field experiences, examining all components of the internship, fostering more collaboration internally, and cultivating stronger relationships with educational stakeholders.

In response to many of the recommendations in these reports, a committee was struck in 2005, at the request of the Dean, to consider creating a new primary/elementary consecutive program and a new intermediate/secondary program. The faculty offers a primary/elementary concurrent program, which was not part of the mandate of this committee. It should also be noted that while the original mandate of this committee was to create new programs, the outcome of the renewal process did not result in the development of new programs. Rather, it resulted in a revised intermediate/secondary program. Renewal of the primary/elementary program is ongoing, but is not the focus of this paper. The committee conducted extensive consultations with stakeholders about the content, scope, sequence, and design of programs and made recommendations about the format of such programs. I was a member of the committee.

Phases of Reform

The process of program renewal in our faculty and the corresponding activities occurred in stages. While the first phase, the emergent phase, focused on a review of all of our teacher preparation programs and the committee collected evidence related to what is needed to prepare teachers to meet the complex needs of today's children and schools, a decision was made later by the Dean to focus primarily on developing a new intermediate/secondary program. The Dean felt that it would be too taxing on faculty time, energy, and human resources to tackle the renewal of two programs. The renewal of our consecutive primary/elementary program was placed on hold temporarily, but recently the process of renewal for this program has started again.

The current intermediate/secondary program is a three consecutive-semester post-degree program designed to prepare individuals primarily for 7-12 teaching. Teacher candidates in this program hold a bachelor's degree, have two teachable areas (subjects taught in the Newfoundland and Labrador school system), and must have attained an overall average of 65% in their teachable subject areas. Candidates complete six courses (three credit hours each) in the first and third semesters, while completing a 15 credit-hour extended internship in a school in the second semester. The mentoring and assessment of each teacher candidate during the internship is the responsibility of a school-based cooperating teacher, while a university faculty member provides ongoing support and mentoring through online communities and school-based visits. Five observation school-based days occur in the first semester; however, the days are not linked in a systematic manner to program courses.

Information Gathering Phase

The work of the six-member committee required considerable time and energy. Initial meetings of the group focused on sharing our beliefs and experiences in teacher education, establishing a set of understandings about goals, and deciding how we would operate to address our mandate. We generated a set of questions to guide our work:

- How can the Faculty of Education prepare teacher candidates for schools in the 21st century?
- What values and principles should guide teacher preparation?
- What knowledge, skills, and commitments do teacher candidates need to develop to be prepared for the complexities of teaching?
- How can the Faculty of Education support future teachers to become educational leaders?
- How can the Faculty of Education create a coherent program that reflects a set of guiding orientations and principles for teacher education?
- How can a post-degree teacher education program embrace the strengths of existing programs, while simultaneously fostering innovative and effective change? (Faculty of Education, Memorial University of Newfoundland, 2006)

It was agreed by the committee that in order to answer these questions, considerable consultation with key stakeholders would have to occur. Prior to collecting this information, we conducted a review of the literature related to teacher education to identify current themes and issues; reviewed descriptions of the current programs in the Faculty of Education, as well as Faculty of Education reports; examined descriptions of teacher preparation models from other Canadian and international universities; and viewed statistics from the provincial Department of Education regarding school configurations.

Our data collection, analysis, and interpretation were guided by a dialectical, hermeneutic approach (Guba & Lincoln, 2005; Kinchloe & McLaren, 2005). In this approach to knowledge generation, the views of individuals and the pursuit of understanding through dialogue are critical. A variety of data collection methods and sources were used to understand the perspectives and perceptions of educators, teacher candidates, and other stakeholders as they shared their lived experiences as follows:

a) Focus group interviews were conducted with a variety of groups and organizations, including Faculty of Education members and staff, Faculty of Education teacher candidates (intermediate/secondary and elementary), Newfoundland and Labrador Teachers' Association provincial executive, Labrador School District representatives, Eastern School District representatives, and community educational organizations. Committee members conducted the focus groups, recording detailed notes during the sessions.

b) Semi-structured individual interviews were conducted by committee members with faculty and staff members, a representative from the French School

District, and Department of Education officials and consultants. Individuals also gave direction to the Committee through letters and e-mail.

c) Teacher candidates (175 out of 240) completed a survey that included 32 Likert items. Statements focused on the nature and structure of the current program, program content, and pedagogical approaches and strategies adopted in the program.

d) Committee meetings occurred on a regular basis between September 2004 and July 2006. Notes were recorded and documents were generated during each meeting, and these were later used as sources of data to generate themes and to inform the ongoing work of the Committee (a total of 100 hours and 24 group meetings).

Data analysis and interpretation were conducted by committee members and a research assistant. The data from these multiple sources were read and reread, while the committee recorded notes and memos as they mined the data. Qualitative data were coded, while descriptive statistics were generated based on the survey results. From an analysis of all the data, several key themes emerged about changes needed in our teacher preparation program.

The Sense-Making Phase

During this phase, interpretation of analyzed data occurred; broad themes were generated related to the research questions; and a report was written that would serve as the basis for reflection and sharing with faculty and staff. In addition to the generation of themes, the committee crafted a set of more specific understandings for guiding teacher education renewal (see the next section). Table 1 summarizes some of the key themes generated, based on evidence collected from stakeholders.

Table 1: Themes generated during data analysis in the sense-making phase
(F = faculty, T = teacher candidates, E = other educational stakeholders)

Broad Themes	Subthemes
Content Areas that Need to be Included in Teacher Preparation	*Several content areas need more attention* Classroom leadership and management, inclusion and diversity, social justice (F, T, E)
The Context of Teaching and Teacher Education	*Demographics* The need for teacher candidates to be prepared to teach in rural/remote schools and in multi-age classrooms (F, E) *Recruitment* The need for earlier recruitment of students and the adoption of broader admission criteria (F) *Internships* The need to have a range of field experiences e.g. different grade levels, urban/rural, etc.(F, T, E) *Teacher Transition*

	The need for induction programs for graduates that would be a shared responsibility between education faculty and school district personnel(F, E)
Approaches and Strategies (The Pedagogy of Teacher Education)	*More learner-centered pedagogy* E-learning, collaborative teaching, problem-based learning, teacher inquiry, digital portfolios, for example (F, T, E) *Program approaches* The need to offer clusters (shorter learning experiences) in addition to courses; adopt different internship models (e.g. one teacher and two interns), and establish cohorts (F)
Concepts and Principles that should be Embodied in Teacher Preparation	*Need for Cohesiveness and Integration* Lack of integration across courses, the need to offer teacher candidates holistic experiences and for faculty to work collaboratively to achieve this *Linking Theory and Practice* The need to ensure theory, practice, and reflection are highly integrated. More clinical experiences are needed that are tied closely to course work (F, T, E) *Broader/Inclusive Teacher Education* The need for broad-based content/experiences that address collaboration, community-building, inclusion, learner diversity, multiple literacies, and social justice (F, T, E) *Inquiry/Reflection/Creativity* The need to establish an inquiry-based model of teacher preparation based on constructivist principles that encourages teacher candidates to take greater responsibility for their learning (F, T, E) *Social Justice/Inclusion/Diversity* The need to understand these concepts and how they become enacted in addressing the needs of all learners (F, T, E) *Student Experience and Knowledge* The need to acknowledge teacher candidates' current knowledge and experiences and build on them *Teacher as Change Agent* The need to promote perspectives and adopt learning activities that encourage teacher candidates to effect change in schools (F, E)

While all of the themes identified above cannot be discussed at length here, some warrant specific attention. In terms of the content of programs, all groups (teacher educators, teacher candidates, and other stakeholders) reported that programs needed to emphasize and address content in the areas of subject matter knowledge and curriculum, teaching (diverse learners), assessment, human development and learning, leadership, social context of teaching and learning, and teaching and learning in and through the visual arts. Teacher candidates felt strongly, as reported during a focus group session, that classroom leadership and management needed to be emphasized more in our current programs. This was also noted as an area needing attention by faculty and other educational stakeholders. In terms of social justice, inclusion, and diversity, individuals across six focus groups shared concerns that these topics were not being addressed in an in-depth manner in our current programs.

While approaches and strategies were identified as a separate theme, many of the specific suggestions are integrally linked to the theme of concepts and principles that should be embodied in teacher preparation. For example, when teacher candidates (n=175) were asked to respond to the survey item, "In my coursework, there are strong connections made between educational theory and practice," only 47% agreed or strongly agreed. Furthermore, only 41% agreed or strongly agreed that their program courses were useful to their personal and professional development. Connecting and integrating theory, practice, and reflection in teacher education programs was cited as being highly desirable and necessary by all groups. One faculty member commented, "This vital connection cannot be limited to the Internship." The subtheme of program coherence was the strongest that emerged during focus group sessions. Suggestions for enhancing coherence in and across program content and experiences included: adopting more learner-centered pedagogy (e.g. teacher inquiry, e-learning approaches, etc.), establishing stronger connections between program courses and experiences and school-based experiences, having earlier school-based experiences in the program that are well-linked to university courses, enhancing school-university partnerships, developing course content that is interdisciplinary, offering more than one internship experience throughout the program, and generating a faculty vision for teacher preparation.

The Collaborative Stage

At this stage in the process, a detailed report, generated by the committee, was shared with faculty. To supplement this, a resource file with literature related to reform in teacher education was also provided. Over the next year, 2007-2008, several faculty meetings were held to examine the draft understandings that would undergird a new teacher preparation program. The draft set, generated by the committee, was modified and revised as a result of intensive faculty deliberations. The final result of these deliberations is reflected below:

1. Teacher education programs need to ensure that student teachers develop in-depth, integrated knowledge of instruction, assessment, curriculum, and student learning to foster optimal learning by all students.
2. Teacher education programs need to ensure that student teachers understand human development, as well as the nature of learning and how students learn.
3. Teacher education programs need to ensure that student teachers are aware of multiple learning theories and understand how they can inform classroom practice.

4. Teacher education programs need to ensure that student teachers are prepared for teaching in a global society, while simultaneously developing knowledge that is unique to the Newfoundland and Labrador educational context.
5. Teacher education programs need to ensure that student teachers have a balance of generalist (general) and specialist (discipline-specific) course work.
6. Teacher education programs need to ensure that student teachers understand their potential to effect social and educational change in order to best meet the needs of students by addressing issues of power, equity, social justice, human rights and dignity.
7. Teacher education programs need to offer integrated learning experiences within a highly articulated and cohesive program.
8. Teacher education programs need to ensure that student teachers share in experience-based learning that occurs within communities of learners.
9. Teacher education programs need to ensure that student teachers have multiple and varied opportunities to develop knowledge, skills, and dispositions through the integration of theory and practice.
10. Teacher education programs need to ensure that student teachers are able to design caring and safe learning environments that facilitate student learning.
11. Teacher education programs need to ensure that student teachers understand and utilize multiple literacies.
12. Teacher education programs need to ensure that student teachers develop content knowledge and pedagogical content knowledge for working effectively with diverse learners in a variety of educational settings.
13. Teacher education programs need to ensure that student teachers recognize, appreciate, and apply principles of equity and inclusiveness in all learning environments.
14. Teacher education programs need to ensure that student teachers participate in extended school and community-based experiences that allow gradual acceptance into the culture of teaching.
15. Teacher education programs need to ensure that student teachers become accustomed to working within a culture of research and inquiry/creativity/reflection.
16. Teacher education programs need to actively support individual faculty learning in the area of teacher preparation.
17. Teacher education programs need to ensure that a common set of student teacher outcomes guide the program.
18. Teacher education programs need to ensure that there is flexibility in how the program is offered. This flexibility will expand the ability to meet the specific needs of student teachers and educators involved in these programs.
19. Teacher education programs need to ensure that student teachers understand their professional role as leaders in the learning process and that their leadership is grounded in knowledge of the policies and practices of the work setting and the larger system (i.e. school district and province) that they operate in.
20. Teacher education programs need to ensure that student teachers develop a

working knowledge of educational law and an understanding of the moral foundations of the law in its application to their professional practice.

21. Teacher education programs need to ensure that student teachers understand and appreciate the principles and practices of learner diversity.

While the negotiation of these understandings amongst a group of 40 faculty was not easy, the net result reflected the perspectives and input of all. Some faculty did raise concerns about whether there was a need for program renewal, despite the recommendations of two previous committees in 2003. One faculty member, for example, referred to our graduates having "very good reputations across Canada" and he did not see the need to repair something that was not broken. In another instance, a couple of faculty felt that "tweaking" was all that was needed to improve our current intermediate/secondary program and a full overhaul was not necessary. Regardless, at the end of this process, the majority of faculty (ninety percent) were very comfortable with the understandings and felt they could be used to guide program renewal. This was a significant step in opening up the black box and garnering more insight into the underpinning reasons for why our program existed in its current form.

The Development Stage

At this stage in the process, the Dean established a second committee, consisting of faculty members, a staff member, and a senior leader in the local school district, to develop and present a revised primary/elementary program and a revised intermediate/secondary degree program. I was not a member of this committee. The work of this committee was informed by their own practical wisdom (Korthagen, 2001; Lunenberg & Korthagen, 2009) and experience as teacher educators, the teacher education literature as presented in the report from the previous committee, their existing knowledge of the teacher education literature, faculty negotiated understandings about program content and processes (refer to the collaborative stage), and policies and practices of the Newfoundland and Labrador Department of Education. Simultaneously, it was decided that the intermediate /secondary program would continue to be a three-semester program, as opposed to the four-semester program presented in the first draft. The leadership team of the faculty, consisting of the dean, two associate deans, and a finance/human resource manager, was concerned that a shift from a three-semester program to four semesters would result in fewer registrants (a four-semester program would be less attractive to prospective students) and thus, would have a detrimental impact on the financial resources of the faculty. The rationale for this was presented to faculty at a meeting, and no one objected or questioned this decision.

In making decisions about the content and processes of a revised teacher education program (see the Appendix for an overview of the revised program), several areas of the existing program were revised and recommendations were offered. These changes are described briefly:

Program cohesion. To achieve cohesion within the program and to ensure all program courses and experiences are integrated, several recommendations and actions were taken. During the development of courses and experiences, curriculum mapping occurred. The course/experience descriptions were examined to ensure the program understandings were reflected in all courses and that common theoretical frameworks were represented across

program content. Furthermore, recommendations were made that once the program was implemented, ongoing evaluation would occur, seeking feedback from students, graduates, faculty, and other stakeholders about the program.

The Teacher Development Seminar, a new course, was designed to play a critical role in building program cohesion and integration. It focuses on teacher identity, critical reflection, professionalism and ethics in teaching, and the creation of a digital portfolio. The course spans the entire three-semester program, engaging small groups of teacher candidates in learning experiences and reflective activities that are connected to other courses and closely linked with reflective components of the internships.

The committee also suggested other strategies to foster program cohesion and integration. Program/curriculum groups would be established in the faculty so that ongoing collaboration, planning, and monitoring of courses and field experiences could occur. These groups do not currently operate in the faculty. As well, ongoing data collection would occur through focus groups, interviews, and surveys to ascertain the effectiveness of the various facets of the program and teacher candidates' perceptions of how their teacher preparation program experiences are impacting their development as teachers. During internships, university supervisors, cooperating teachers, and teacher candidates would work closely together to support teacher candidates' learning. Another strategy proposed that a program statement be generated that includes the goals and intent of our program and that this would be published on our Faculty of Education website. These "connecting threads" (Faculty of Education, 2009) are intended to foster program cohesion and integration, as stated in understanding #7 (see above). Furthermore, the ongoing evaluation and monitoring of program components and the introduction of a course that would support teacher candidates in connecting theory and practice throughout the program would help to ensure that they develop an in-depth integrated knowledge base for teaching (see understanding #1).

Updated/revised content. New content is introduced into the program that focuses on diversity and inclusion, professional leading and learning in the school organization (e.g. communities and schools, nature of teachers' work, teacher leadership), and social justice. Special attention is given to the policies and practices of the Department of Education, Newfoundland and Labrador as they relate to inclusive education (Department of Education, 2011). The suggested policies and practices as they relate to parents, K-12 students, teachers, schools, and school districts are included in several documents that can be found at http://www.ed.gov.nl.ca/edu/k12/inclusion.html. For example, one of the new program courses, "Engaging the diverse learner in the inclusive classroom" introduces approaches and strategies for diverse learners in the contemporary classroom. Other new content is introduced in the second semester of the program through the offering of a set of one credit and two credit hour seminar experiences. Students have choices in the courses they choose (15-20 offerings); thus, the committee's intent was to target understanding #18 by "meeting the specific needs of student teachers." The action to introduce new content and update the current courses and program experiences was in direct response to the themes identified in the *Meeting the Challenge: Post-Degree Teacher Education* report (Faculty of Education, 2006), generated by the first committee.

Program processes. The committee offered recommendations for continuing to cultivate strong working relationships with schools. These include providing more professional

development for those who supervise the clinical experiences (university supervisors and cooperating teachers); and sharing the goals of the proposed program and the principles that underpin the content and pedagogy with per course instructors, cooperating teachers, and principals involved in internships. It was suggested that a model be developed for promoting collegial consultation among all stakeholders and that the internship model be evaluated on an ongoing basis.

In the new program, teacher candidates will participate in a three-week internship at the midpoint of the first semester. This entails observation and some initial teaching. An extended internship will follow in the second semester in which the teacher candidate gradually assumes more and more responsibility for classroom teaching. This is linked to the Teacher Development Seminar. Teacher candidates will complete inquiry activities in the classrooms where they are completing extended internships, and post reflections to an online management system; these reflections are shared with a university supervisor. The experiences (field experiences and online work) will be well-supervised and reflect the understandings developed to guide the program design. It is also recognized that faculty need to be supported in adopting new pedagogies to help students connect and integrate theory and experience, and develop their practical wisdom for teaching (Korthagen, 2001; Lunenberg & Korthagen, 2009). Lunenberg and Korthagen define practical wisdom as the sensitivity for and awareness of the essentials of a particular practice situation that shape our perception of this situation, and help us find possible courses of action. "Practical wisdom is not something that is just stored in our heads, but it is intrinsically connected to specific phenomena occurring in the here-and-now and it only functions well in relation to these phenomena" (Lunenberg & Korthagen, 2009, p. 227). Theory, on the other hand, is considered to be known and written down. "It involves logical structuring, such as the formulation of definitions and logically derived propositions" (Lunenberg & Korthagen, p. 227). Unlike practical wisdom, theory is not context-bound and is usually generated by university researchers and used by practitioners. Experience, the third component of this triad, is gained by being in the real world (classrooms and schools), and involves both the environment in which an individual operates (e.g. classrooms) and the inner realities of the individual as she connects with the environment. All three elements need to interact and teacher candidates need to be supported in making connections among the three. Hence, having an early field experience and an online reflective experience that allows students to make explicit connections among theory and experience provide context to foster the development of practical wisdom. The ability to make these explicit connections between theory and experience through reflection should be a focus of the practicum, according to Donald Schön (1987) in *Educating the Reflective Practitioner*. Reflective coaching and the relationship between the mentor and teacher candidate become critical in providing a setting designed for the task of learning a practice . . . learn[ing] by doing"(Schön, 1987, p. 7). The practicum "stands in an intermediate space between the practice world, the 'lay' world of ordinary life, and the esoteric world of the academy," thus providing a means to support teacher candidates in connecting and integrating theory and practice (Schön, 1987, p. 37).

The first draft of the revised intermediate/secondary program model, including recommendations for implementation, was presented to faculty. Discussion ensued through several faculty meetings and small group sessions focused on the sequencing of courses and experiences; the placement of the early, first-semester school-based internship; and the nature of the one credit and two credit hour courses at the end of the extended internship in semester two. A small number of faculty were concerned that advanced methodology courses would

disappear in the revised program. Three to four faculty members questioned the feasibility of offering the short courses at the end of the second semester, having questions about how this would affect teacher candidates' learning and the assessment of their learning. It was decided, after majority support of a motion, that the early internship should be placed early in the first semester, thus allowing teacher candidates to be better situated to connect school experiences and university course work. Later, a revised model (see the Appendix) was presented to faculty for consideration, and was approved for development and implementation.

Personal Reflections on Renewal

Through the renewal process, the revised intermediate/secondary program included new content (e.g. diverse learners and inclusion); a change in the scope and sequencing of program courses and experiences; an introductory school-based experience that would be integrally linked to university course work (the extended internship was retained); choice in course experiences in the second semester; and the inclusion of a teacher development seminar that would span the entire program. Many of the cornerstones for reform of a teacher preparation program, as suggested by Darling-Hammond (2006a, 2006b), are reflected in our revised program. Careful consideration is given to course sequencing, and course work is linked to school-based experience explicitly. Recommendations were made for ongoing monitoring and evaluation of program implementation and the adoption of innovative pedagogies by faculty. Furthermore, the Teacher Development Seminar, a new course, is envisioned as providing a context for teacher candidates to consolidate and reflect on their learning across all program components. These revisions can enhance program coherence and integration (one of the cornerstones), while providing opportunities for teacher candidates to connect and integrate theory and practice, as well as develop their practical wisdom for teaching (see cornerstone two, p. 3). There was also a very strong recognition that fostering dynamic and robust relationships with schools was essential in supporting teacher candidate learning (see cornerstone three, p. 3).

One of the biggest positive spinoffs of program renewal was that it engaged faculty in intensive discussions about research and teaching in teacher education. It opened the "black box" of teacher preparation so we could examine the "how" and "what" of our program and consider what we were doing well and areas that needed improvement. We considered our current content and how it needed to be changed, as well as the nature of the school-based experience and how it connected or did not connect with program structures and teacher candidate learning experiences. It allowed us to develop a shared vision for teacher education and to use that vision to guide program design. As Cochran-Smith and Zeichner (2005) suggest, "decisions about teacher education will always be influenced by a mix of values, experience, politics, and empirical evidence" (p. 32). These authors go on to say that we currently know very little about the impact of teacher education and that there is "even less agreement about what counts as evidence in the first place" (p. 32). While decisions about program content and design required considerable negotiation, the decisions made were informed by various types of evidence, including empirical research based on data collected from many educational stakeholders, emerging ideas and principles from the literature on

teacher education, the practical wisdom and experience of the teacher educators themselves, and fiscal considerations.

This paper has described the renewal process that occurred in one Faculty of Education and the evidence that was used to inform decision-making. The process was lengthy, intensive, and required considerable negotiation. The impact the new program will have on teacher candidates and the development of their knowledge, skills, and abilities will unfold as the program is implemented and program assessment and evaluation occur.

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APPENDIX

Source: Faculty of Education (2009).

*Semester 1 (18 credit hours)
Effective Teaching and Learning Environments (3 credit hours) Teacher Development Seminar** - Introduction Teaching and Learning (A) in the Intermediate and Secondary School (3 credit hours) Teaching and Learning (B) in the Intermediate and Secondary School (3 credit hours) Introduction to the Exceptional Learner (3 credit hours) Engaging the Adolescent Learner (3 credit hours) Introductory Internship in Teaching and Learning in the Intermediate and Secondary School (Begins in the fourth week of the semester): (3 credit hours)

*Semester 2 (15 credit hours)
Extended Internship in Teaching and Learning in the Intermediate and Secondary School: **12 weeks** (12 credit hours) Teacher Development Seminar ** - Continuation Post Internship Institutes: **5-8 days** (3 credit hours)*** - Samples include: Engaging the Intermediate Learner; Teaching and Learning in Multi-age / Multidiscipline Classrooms; ESL Teaching and Learning; Rural Education; School Leadership; Arts-Infused Pedagogy; Ethics and Legalities; Media Education; Technology-based Pedagogy; Environmental Education; Community Literacy; Experiential Education; Education and Exceptionalities

*Semester 3 (18 credit hours)
Assessment for Learning (3 credit hours) Perspectives on Schooling (3 credit hours) Teaching the Exceptional Learner in the Inclusive Classroom (3 credit hours) Teacher Leadership and the School Organization (3 credit hours) Diversity, Social Justice, and Teaching and Learning (3 credit hours) Teacher Development Seminar ** - Conclusion

* All semesters are 13-14 weeks duration

**Professional experiences (seminars, workshops, short courses, etc.) related to the Teacher Education Seminar and Portfolio are scheduled throughout the program and culminate in semester 3.

***Institutes on selected topics are offered as modules of 1-3 credit hours each. Students complete a minimum of two modules for a total of 3 credit hours.

Chapter 8

The Case of the Compelling Story:
The Role of Anecdotal Feedback in Teacher
Education Program Creation and Review

MARK HIRSCHKORN & PAULA KRISTMANSON

In this chapter, we describe the types of evidence used to drive teacher education review, with specific attention to the role of the anecdote. Using a fictionalized, but representative story as the backdrop, the chapter deals with questions and issues around anecdotal evidence, discussing what it is, where it originates and the impact it can have. Examples from the authors' experiences at their home institution are used to exemplify how anecdotal evidence could be used as an agent of inquiry. The main conclusion that anecdotal evidence should be an agent of inquiry rather than an agent of change is followed by recommendations for how to utilize the strengths of both systematic evidence gathering and anecdotal feedback in teacher education policy and program decisions. We also consider how the patterns of the majority can be served by the anecdotes of the individual through critical agency.

Introduction

Joseph is a 24 year old single father who began realizing his goal of being a teacher when he was accepted into a teacher education program at a university that accepts 200 students each year. He applied to this program because it has a 1-year duration, it is close to home, and being a single father, he needs to minimize his school-time so that he can begin teaching and earning an income as quickly as possible. He has made arrangements for his retired mother and father to look after his daughter while he is at school, but he has just learned that his practica will be at a school that will require him to drive one hour each way, once a week and then increase the financial and time burden even more when his extended eight week practicum begins later that year.

The school he has been placed in is an excellent school, and although he thinks that working with the students each week is ideal, he does not think he can find the money, or the time to make the drive even though he is one of the lucky few who have their own cars. Thus, he seeks out the placement organizer and seeks to have his practicum changed to a more local school, as he originally requested. Joseph is told special accommodations cannot be made for each individual because it would set a precedent that would be unmanageable for the field placement personnel if all students were given this special consideration. He is also told that

the possibility of a distant placement was explained in his admission letter and that he should have realized that this might be a possibility when he accepted his admittance in the first place. He responded that he did not pay much attention to this information because he believed his circumstances would be taken into consideration when the placements were made.

The result is Joseph finds a way to survive the year by borrowing money from his family, car-pooling with other students, and explaining to his daughter that he will be away a lot, but only for one year. It also results in Joseph complaining to his instructors about the insensitivity of the program every chance he gets, recommending they find a way to change the placement process, or limit the number of students admitted so that future students can be placed locally.

Should something be changed?

Joseph's story is compelling. Many instructors who are sympathetic to the stories of students and the rigours of the teacher education program would be motivated to do something to help a student like Joseph, or at least, make sure this situation does not happen again. Such efforts are compounded in circumstances in which these well-meaning individual instructors do not have a full understanding of the larger program context and the reasons for placement decisions. When all they have is a story like Joseph's, the result may be an initiation of discussions at the faculty level suggesting larger reforms or for making individual exceptions. This latter situation is seemingly inevitable; we make accommodations for individuals on a regular basis in our courses and in our programs. However, making the exception the rule without further inquiry could have unintended consequences. On one end of the continuum, the exception may create a precedent that other students will seek to have applied to their circumstances. On the other end, a single, anecdotal account may lead to substantive program reform. Thus we pose the following questions: As powerful as this may be, should a story like Joseph's be the impetus for the teacher education program to change? What is the role of anecdotal feedback in teacher education review and reform?

Anecdotal accounts from students, teachers and colleagues influence teacher educators. "People can and do have strongly held views based on astonishingly little evidence -- sometimes a personal experience, other times an account of someone else's personal experience" (Levin, 2005, p.19). However, the power of compelling stories lies in their immediacy and their ability to resonate with the experiences of the audience. They confirm what we believe to be true, what we have heard, what we have seen, and what seems intuitively right. Clandinin and Connelly (2000) labeled this as *verisimilitude* ("ringing true"), and suggested that describing rich anecdotal experiences when writing narratives allows a reader to find resonance with those anecdotal experiences and to then apply the learnings as they deem appropriate to their own context. Thus, in their opinion, verisimilitude is a viable alternative to concepts such as validity and reliability that are more commonly used in qualitative research when seeking support for a conclusion or recommendation.

For the purposes of this paper, we use Doecke, Brown and Loughran's (2000) description of anecdotes as *stories told from a personal point of view* that use a narrative to organize and give meaning to the experiences. These anecdotes originate in many different ways, ranging from solicited interviews to accidental venting in courses and in the hallways. Collection and analysis of these anecdotes often act as the backbone of qualitative inquiries, systematic or otherwise (Freeman, 1996). However, anecdotal evidence is often idiosyncratic and may not represent the experiences of others, let alone the majority. There is also a tension

created when others do not similarly resonate with the anecdote. When designing and administering something as complex as a teacher education program, a fundamental goal is to meet the needs of as many stakeholders as possible and to focus on the majority as the norm. In a teacher education context, this can result in a tension between acknowledging the "lived experience" (van Manen, 1997) of stakeholders and avoiding the tendency for knee-jerk reactions to compelling stories. From van Manen's phenomenological perspective, it is essential to value the way we experience the world and to give meaning to these experiences. Teacher education programs must acknowledge the particular circumstances, experiences, and life stories of individuals, while exercising caution when making decisions based on a particular situation or anecdote.

In this chapter, we examine the role of evidence, particularly anecdotes, in both program design and on-going efforts to keep a program relevant and responsive to all stakeholders. This includes an explanation of the types of evidence used in the context of the creation of the teacher education program at the University of New Brunswick (UNB) contrasted with the evidence that is now being used in ongoing review efforts of the same program. We conclude with recommendations for how to utilize anecdotal feedback, both idiosyncratic and systematic, in teacher education program review.

What Counts as Evidence in Teacher Education Program Creation?

Evidence informs decisions, even though not all decisions are based on evidence. It has been our experience that there is a difference in the influence evidence has depending on whether a teacher education program is being created from scratch, or whether it is a modification of an existing program. In new teacher education programs, information related to local context, lessons learned from previous/other programs, student demographics and intentions, current trends in the research literature, provincial standards and curricula, and intended vision and niche of the program are all considered. This information and the relative values placed on aspects of it by different stakeholders are negotiated, compromises are made, and the result is the new program that is eventually implemented.

What stands out about the information that drives the implementation of new programs is that the process is usually driven by data drawn from collections of individuals. Rarely, if ever, would a single opinion or piece of information from one individual drive the structure of a teacher education program. Programs are intended to serve the needs of as many of the stakeholders as possible, and usually the majority rules. Of course, during the negotiation, the influence of individual experiences is evident. People involved in forging the vision for the program are using their own experiences and experiences related to them by others to make sense of proposed program models. Consequently, these experiences can influence their willingness to support or argue against various elements of these models.

A case in point is the undergraduate education program created at UNB. Through a lengthy consultative process, stakeholders at all levels of the educational community contributed insights regarding the overall structure of the education program. These insights were often anecdotal, but the stories were intended to represent groups of stakeholders and were expected to contribute to a collective vision. Although the members of the steering committee were all given opportunities to share insights from past experiences and informed

opinions, there were several guiding principles stemming from the research literature and local context that everyone accepted from the outset of these discussions. Within these basic parameters (e.g., a 1-year consecutive program; need for practical experiences connected to course work), individual members of the committee made recommendations about length, location, and number of practicum experiences as well as necessary elements to be included in the program's course work. Over the course of a year, through small and large group discussions at regular day-long meetings, a document was created that synthesized the major themes brought forth by the small groups and proposed recommendations based on these themes (Sears, 2007). This report became the framework for the new B.Ed. program at UNB. In order to move forward, the report represented the majority opinion and the consensus reached by the committee through collaborative dialogue.

Lemisko and Ward (2010) describe a similar consultative process at the University of Saskatchewan in which they sought to create a new teacher education program with an emphasis driven by a changing provincial context with priority being placed on post-colonial education. Once again, a fundamental goal of this change was to serve the needs of the majority; a majority made up of people from the community, the schools and the education faculty itself. Naested, Nickel, Sikora, and Vaughan (2010) present a description of the creation of an education program at Calgary's Mount Royal University, a university unbounded by the patterns and inertia of prior teacher education program. That program, founded on principles such as reflective practice, legitimate field experiences and community, was a synthesis of research literature, what is working at other institutions, and public negotiation. Once again, even though people share anecdotes as they seek to support or refute prospective program features, the process as a whole is, by design, a negotiated compromise supported by defensible reasons for how program choices will serve the majority of stakeholders.

What Counts as Evidence in Teacher Education Program Review?

At UNB, information regarding the effectiveness of the teacher education program and the ongoing changes required to ensure its continued relevance for stakeholders originates from the following sources: 1) systematic follow-up and research efforts aimed at collecting and analyzing the experiences and successes of stakeholders (students, school personnel and faculty) both during and after the teacher education program; 2) individuals reporting their feedback to people responsible for administering or teaching in the program; and, 3) periodic faculty review of program intent and reality. These feedback sources contrast with what was used to create the teacher education program, because the feedback from individuals experiencing the program can only originate from a program that is already in place. Thus, teacher education review at UNB, which we define as ongoing modification of an existing teacher education program, has access to, and places increased value upon, individual opinions and experiences. We label these experiences or stories as anecdotal data, as they are most often conveyed through descriptions of specific events centered on an individual's experience, which may or may not be mirrored in the experiences of other stakeholders.

Table 1: Summary of evidence types used in teacher education creation and review at UNB

Program Creation	On-going Review
• Provincial standards/ certification requirements • Teacher Education Literature • Practices elsewhere • Stakeholder consultation • Historical evidence • Past program evaluations	• Solicited and unsolicited feedback from stakeholders • Systematic collection of experiences during and after the program • Evaluation of student learning in light of expected competencies • Re-examining the literature in light of new experiences

The Power of Anecdotes

"I was talking to a student the other day…" is a common lead-in to program-related issues brought to the faculty council table. This phrase lends legitimacy and immediacy to a concern brought forward that is often hard to refute without being labeled as insensitive to student needs. In 2009-2010, a concern brought to the UNB Education faculty began in just such a manner; the issue centered on some students' concerns about having to travel to their practicum placements each week in winter driving conditions. A compelling story was brought to the table and potential dangers of winter driving in New Brunswick (e.g., snow, ice, moose) were outlined. A motion was made to terminate the winter Mondays in schools. One of the features of the new program was weekly contact with the school environment to increase the connection between on-campus and in-school learning. Although this motion was defeated, another motion was made to strike an ad hoc committee to investigate the matter and to collect data from all stakeholders concerning the issue.

All students, faculty, and schools were subsequently surveyed and given the opportunity to voice concerns anonymously. The result of this inquiry was a short report summarizing the data collected and the implications of the data (Undergraduate Program Committee, June 2010). The report indicated that schools were almost unanimously in favor of keeping winter Mondays. The vast majority of students at the elementary level also enjoyed and wanted to keep the winter Mondays. Although there were a few reports of being nervous about winter driving, the rare complaints centered on the cost and the time involved in travel. Even among students who had to travel up to an hour to attend their Monday placements, most wanted to keep this time in school.

Also in the report, secondary students, although valuing their regular time in the schools, requested that their Mondays in schools be made more useful. For most secondary interns the issues with Mondays were not related to weather, but rather to the feeling that the time in school was not being used effectively. The result of this inquiry was that the ad hoc committee recommended that "winter Mondays" remain as a program feature; it also recommended improvements to the Mondays for secondary students. In addition, it was recommended that the Faculty communicate with schools about this matter to foster a common understanding regarding intern absence due to weather. It was stated clearly that students are not expected to put their lives in danger in an attempt to travel to their placements in winter and that all

attempts should be made to communicate the same to principals and liaison teachers. Negotiations were also begun to create a fund to which traveling interns could apply to receive a subsidy to help offset travel costs. So, did we hear the voices of our stakeholders? In large part, the response to this question is yes. But did we acknowledge each individual voice? That question is much more difficult to answer.

There is no doubt, that these stories from the hallways, the cafeterias, and distraught students in professors' and counselors' offices, are powerful. These moments are significant to the people relating their stories and often to the people hearing them. Whether or not they are mirrored in the experiences of others, these moments can dramatically affect individuals and their opinions and attitudes toward the program. Certainly, many researchers engaged in qualitative inquiry would advocate for studies that give voice to an individual's account of a lived experience (e.g., Chase, 2005; Holstein & Gubrium, 2005). In fact, researchers such as Kirby and McKenna (1989) promote the idea of capturing voices from the margin. In doing so, they encourage qualitative researchers to not only acknowledge the voices of marginalized individuals, but also the voices that may differ from that of the majority, that may not correspond to particular patterns or themes. But what role does such data play in teacher education program reform and review? Does the acknowledgement of the individual situation revealed in an anecdote always necessitate action? Our experiences at UNB have taught us that a combination of factors determines whether or not action is taken in response to anecdotal feedback.

- The willingness of the individual to pursue measures like grievance processes or legal action;
- the willingness of faculty members to go to bat for the individual and the relative authority that faculty member has in the program;
- how common the experience being described is among other stakeholders;
- how simple a fix the solution is and the long-term implications of the solution (if it sets a precedent);
- the relative authority of the individual relating their experience. For example, the opinion of an individual teacher in a school who may not be familiar with the teacher education program and its goals may be valued less than the feedback from an education student in the program.

Richardson (2006) suggests that education is unique in how virtually everyone on the authority of his or her own experience is an expert on what teacher education should be, beliefs that are deep, strongly held, and most often misguided and unworkable. Making large program changes based on anecdotal evidence alone is not appropriate or even possible in most circumstances. As the points above illustrate, many factors need to be considered before reforming a teacher education program, especially one that is still in its early years. Making reactionary changes to a program on the basis of a compelling story without considering how the suggested changes will affect other students and the intentions of the program may have unintended and possibly negative consequences. Although some may argue that ignoring the compelling story could have equally profound implications, encouraging faculties to take action by engaging in further inquiry holds promise for teacher education reform. This suggested

inquiry process is not intended to belabor the issue, but simply to encourage more inclusive and informed decision-making.

Anecdote as Agent of Inquiry

To quote Spock from the original Star Trek series, "the needs of the many must outweigh the needs of the one". This perspective reflects the origins of complex programs such as university-based teacher education. Teacher education programs seek to balance the needs and concerns of the stakeholders with the learning experiences deemed necessary to promote the development of effective teachers. Majority Rules. Nonetheless, anecdotal evidence can serve as the impetus for positive change. It can initiate a more systematic inquiry as was the case at UNB in 2009-2010. For example, anecdotal evidence can act as the basis for creating policy exemptions that meet the special needs of particular groups of students. It can even act as motivation for individuals to pursue their own inquiry and thus gain a deeper understanding of program intentions and limitations. Perhaps most poignantly, the individual voices can also educate and influence the majority, and thus result in changes to the program that serves the needs of the reoriented majority.

Often the implications of certain program features are unknown until they are attempted despite many efforts to anticipate what issues may result from these choices. Anecdotal feedback is one way that faculty members begin to hear about and understand the potential impact of particular program features. When programs are changed or reformed a similar phenomenon occurs; once again, all of the ramifications cannot be anticipated. Nonetheless, some attempt to account for the broader results of change must underpin any reform effort. For instance, to return to Joseph in our opening story, if Joseph had been given a local placement in response to his circumstance, and the program had created a special exemption rule for single parents, what implications would this have for other students? Why are single parent students favored? Why not varsity athletes, or students with disabilities? What about students without vehicles, students living on a very limited budget or students who must work evenings to pay the bills? Differentiation is a central focus in current, responsive education systems. As teacher educators, we underscore the importance of differentiated instruction - an organized yet flexible way of proactively adjusting teaching and learning to meet the needs of learners and to maximize engagement and success (Tomlinson, 2003). Is it possible to espouse this educational approach and not consider it on a programmatic level? But, does a teacher education program have the capacity to take all individual circumstances into consideration?

An anecdote can serve as a compelling motivator for further inquiry, but without some attempt to consider the broader ramifications of any changes generated by the anecdote on all stakeholders, the program would quickly be reduced to short-term fixes and likely could also inadvertently encourage all students to become squeaky wheels. In the long-term, piecemeal reform can result in disjointed, incoherent fixes that leave the teacher education program barely resembling the vision for the original program (Cochrane-Smith, 2005). Thus, reforms and changes made to teacher education programs must either be integrated into the original vision for the program, or the vision itself must be changed and communicated in order to continue to meet the needs of its stakeholders.

What follows is a list of ways that teacher education programs can enable anecdotal feedback from their stakeholders, while reserving the right to respond according to the needs of the program as a whole.

- Creation of a program handbook with vision statements and explanations of the strengths and limitations of program features;
- a systematic data collection program whereby feedback from stakeholders is solicited regularly and then analyzed in light of the basic goals of the program;
- effectively publicized anonymous feedback venues such as online sites or an impartial ombudsperson to whom stakeholders can voice their concerns.
- faculty committee structures that regularly vet feedback from stakeholders and decide which issues require further consideration;
- a willingness by education faculty members to engage in on-going program review and improvement through systematic forms of inquiry;
- regular faculty and student town-hall meetings to provide a venue for feedback and also to gain a sense of the systemic nature of the issues raised by individuals.

Conclusion

Program creation often draws on different types of evidence than program review and reform. Regardless, teacher education program personnel are challenged to remain relevant and sensitive to their stakeholders, while simultaneously creating and maintaining features aligned with the intentions and visions for the program. Balancing the immediate call to action prompted by emotionally compelling anecdotal accounts with a reasoned and thoughtful approach to decision-making is difficult and requires a collegial mentality. It is possible to do both, but not without informed and respectful professional conversations, transparency in action, and a clear vision of program goals.

When Joseph's expectations of how the teacher education program would respond to his circumstances were not realized, the result was a negative opinion of the program that he freely shared with anyone who would listen. We would like to believe that systematic inquiry into feedback can be a spark for positive change, but changing the program on the basis of one individual's circumstances and opinions alone is not appropriate. As Freeman (1996) suggests, not all anecdotal evidence is created equal. It must be challenged and analyzed for its significance, with questions regarding its origins and effects. Unfortunately, this often does not operate on a timeframe that would allow the program to respond to Joseph beyond explaining the reasons for the existing program structure. It is more likely that any action that would arise from Joseph's concerns would benefit future students who have a personal context similar to his. We also believe that the feedback from people like Joseph (evidence) cannot simply disappear, regardless of whether it contributes to a change in the program. The feedback from Joseph must not only be seen to be heard, but also some evidence of what has happened to this feedback should be made available to Joseph and others who might share his concern. This could be done through specific written responses, but more reasonably could be managed

through annual reviews of the program with reasons for how the feedback has or has not resulted in change.

Anecdotal feedback influences the people who conceptualize and establish teacher education programs. Teacher educators might be even more sympathetic to this form of evidence by virtue of a predisposition to be empathetic toward student and school concerns. The question remains, however, how does this evidence come to influence teacher education policy and program decisions? For us the answer lies in a term we borrow from the structure and agency literature: "critical agent". Regardless of origin or significance, if an anecdote finds purchase in an individual willing to pursue it, there is a good chance that the feedback will have an impact on the program in which that critical agent has influence. In the winter Monday's example, the feedback regarding winter driving was only considered once it gained an advocate on faculty who was willing to question the program on behalf of this concern. It is the agent of change who influences the policies and program, not the feedback in and of itself. Teacher education programs are negotiated compromises that attempt to serve the needs of as many stakeholders as possible. It is our contention that the power of an anecdote is not a self-evident indicator of needed changes, but rather acts as a strong influence upon the people who ultimately make the changes, and thus how they perceive the available evidence, and how willing they are to solicit more evidence.

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Chapter 9

Attending to the Ongoing Negotiation of a Curriculum of Lives in Teacher Education Programs

Yi Li, Carla Nelson, Mary Young,
Shaun Murphy, & Janice Huber

From our location as teacher educators in teacher education programs, we enter the conversation regarding what can and should count as evidence from a perspective that attends to teacher education as a deeply experiential, narrative process. Through narrative inquiry into the experiences one co-author lived as a teacher educator, we foreground narrative understandings of the interwoven nature of curriculum making and identity making. By doing so, we simultaneously wonder about possibilities for teacher education and, also, for the ongoing development of teacher education programs.

Beginning in Experience

Becoming a teacher
Is always a work-in-progress
I read the story of *ISH* (Reynolds, 2005)[1]
Inviting course participants
To think about the importance of ish-ness

Writing, reading, and responding to stories
They learn to listen attentively
They begin to value their own experiences
They come to understand others in a deeper way
They feel closer to one another in this community

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[1] In the story of ISH, Reynolds (2005) highlights the importance of not privileging perfection or a sense of finality in our lives over the more authentic ways in which our lives are shaped by ongoing incompleteness and uncertainty.

> Becoming a teacher
> Is a lifelong journey
> I hope they realize its complexity
> I hope they trust what they do know
> And learn to live with what they don't yet

We begin with the above poem[2], composed by Yi Li, as it shows something of the dwelling in relationality, temporality, and uncertainty experienced by teacher education students and teacher educators as their lives meet in teacher education classrooms and programs. On a snowy Saturday morning in November 2010 we gathered around a table in the Faculty of Education at the University of Manitoba. The *Fourth Working Conference on Research in Teacher Education in Canada* was coming to an end. However, we found ourselves still sharing stories of the complexities we experience in our work as teacher educators across three Canadian provinces: Saskatchewan, Manitoba, and Ontario, where our five teacher education programs are situated. Months earlier we were drawn into the working conference around questions of what counts as evidence in teacher education. In writing a draft paper to be shared at the conference, we inquired into narrative understandings of the "living, telling, retelling and reliving" (Clandinin & Connelly, 1998, p. 252) of teacher identity as a central aspect of, and as needing to count as evidence in, teacher education (Nelson, Young, Li, Murphy & Huber, 2011). Yet, as we arrived at the conference and found ourselves sharing these ideas in a working group more focused around questions of the research evidence used in teacher education program review processes at Canadian universities, and the kinds of decisions and processes that guide the use of this research in the revision of programs, we realized that our focus on the identities of teacher education students and teacher educators seemed somewhat missing from the conversation. As our earlier described Saturday morning conversation drew to a close we realized that our narrative understandings of teacher identity (Connelly & Clandinin, 1999; Huber et al, 2009; Li, 2009; Murphy, 2009; Nelson, 2008; Young et al, 2010) and, as well, our narrative understandings of ways in which identity making and curriculum making are entwined in the negotiation of "a curriculum of lives" (Clandinin et al., 2006; Huber & Clandinin, 2005; Huber, Murphy, & Clandinin, 2005, 2011) could offer new ways of understanding what is at work in teacher education classrooms and, also, new and significant considerations in the ongoing development of teacher education programs[3].

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[2] An earlier version of this poem and the poem on pages 139-140 have appeared in *Path to Pedagogy, 18*(3), 4-8 (available at: http://intranet.umanitoba.ca/academic_support/uts/media/Volume_18_No3_May_2010.pdf

[3] We recognize that the conceptualization of a "curriculum of lives" emerged through long-term school based inquiries alongside teachers (Clandinin, 1986; Clandinin & Connelly, 1995; Connelly & Clandinin, 1988; 1999), and increasingly, alongside teachers, children, families, and administrators (Clandinin et al, 2006; Huber & Clandinin, 2005; Huber, Murphy & Clandinin, 2003, 2011; Pearce, 2005) as their lives met in Canadian schools. We draw on this conceptualization in our chapter to show rich possibilities such an understanding opens up, and makes visible, in teacher education.

Bringing Narrative Understandings of the Interwoven Nature of Curriculum Making and Identity Making in the Negotiation of a Curriculum of Lives to Teacher Education

Our narrative understandings of curriculum making are situated in Clandinin and Connelly's (1992) earlier attention to curriculum making as the expression of a teacher's personal practical knowledge. They described this knowledge as "that body of convictions and meanings, conscious or unconscious, that have arisen from experience (intimate, social, and traditional) and that are expressed in a person's practices" (Clandinin & Connelly, 1995, p. 7). Drawing on Dewey's (1938) notions of experience as threaded by understandings of continuity, situation, and interaction, Clandinin and Connelly (1992) saw the "teacher not so much as a maker of curriculum but as a part of it" (p. 365). Situating teachers in this way, Clandinin and Connelly imagined curriculum making as also shaped by place, "culture (Dewey's notion of interaction), and temporality (both past and future contained in Dewey's notion of continuity)" (p. 365). Bringing together their understandings of teachers' knowledge as personal practical knowledge with Dewey's notion of experience and Schwab's (1969) four curriculum commonplaces—teacher, learner, subject matter, and milieu—Clandinin and Connelly (1992) suggested that curriculum

> be viewed as an account of teachers' and children's lives together in schools and classrooms. . . . [In this view of curriculum making] the teacher is seen as an integral part of the curricular process . . . in which teacher, learners, subject matter, and milieu are in dynamic interaction. (p. 392)

Continuing to wade into the "tangled definitional history" (p. 364) of curriculum, Clandinin and Connelly (1992) argued for the development of a new literature "not yet widely acknowledged—teachers' stories and stories of teachers" (p. 363). Clandinin and Connelly's argument was based on their desire to understand "the teacher in relation to curriculum—that the teacher is an integral part of the curriculum constructed and enacted in classrooms" (p. 363). For Clandinin and Connelly, a key way to understand this relationship between the teacher and curriculum is made visible through stories of experience because "stories … yield things of importance to curriculum making not otherwise seen" (p. 391). In their further imagining of these experiential, narrative understandings of curriculum Clandinin and Connelly emphasized that

> Stories are temporal, and it is through the media of time and space that people, things, and events reflect, and are seen to reflect, one another. Dewey repeatedly made the point that experiential occurrences in existential situations reformed the participating elements. Stories are accounts of such transformations. The dynamics of a life story presses particular events and understandings into the background to become a context for the curriculum constructed and reconstructed by teachers and students. These participants live out intersecting lives with a combination of shared and independent story lines, all of which impinge on the curriculum constructed in the unfolding classroom story. These possibilities for seeing and recording curriculum in the making constitute the justification of our belief that the creation of a new literature is warranted. (p. 391)

Clandinin and Connelly hold a central place, within Canada and internationally, in both the creation and recognition of teachers' stories and stories of teachers as important in the fields of curriculum studies and teacher education as well as in the creation and recognition of narrative inquiry as a way to understand teachers' (and others') experiences (Clandinin & Connelly, 1996; 1998; 2000; Connelly & Clandinin, 1990; 2006).

While Clandinin and Connelly (1992) first emphasized personal practical knowledge as a dialectic between the personal and social within an individual teacher's life they saw another dialectic between the personal and social also being lived out, a dialectic between the person and the social of school, most often called school contexts (Clandinin et al, 2006). Clandinin and Connelly (1995) developed a metaphor of a professional knowledge landscape to talk about school contexts, a metaphor that enabled talk of "space, place, and time" (p. 4) as well as an acknowledgement that landscapes are "filled with diverse people, things, and events in different relationships" (p. 4). This metaphor resonated with teachers and they often responded with stories of the dilemmas they experienced as they moved from "in-classroom places" (p. 14) to "out-of-classroom places" (p. 14) on their professional knowledge landscapes. As Connelly and Clandinin (1999) listened to teachers' stories of the dilemmas they experienced they recognized that teachers seemed to be asking questions of their identities, questions of who they were in different places and relationships on and off their professional knowledge landscapes. Extending their earlier connections between teachers' personal practical knowledge and professional knowledge landscapes Connelly and Clandinin developed the term "stories to live by" as a narrative way to understand teachers' identities, a term "given meaning by the narrative understandings of knowledge and contexts" (p. 4).

Working from these understandings of teachers' knowledge, contexts, and identities, Huber, Keats Whelan, & Clandinin (2003) began to focus on questions of children's lives in school and to foreground the interwoven nature of children's narrative identity making, their stories to live by, and the curriculum making children negotiated with teachers and one another. This interweaving of children's stories to live by with teachers' stories to live by in curriculum making was gradually conceptualized as the negotiation of "a curriculum of lives" (Huber & Clandinin, 2005; Huber, Murphy, & Clandinin, 2005). As additional questions of children as holders and makers of knowledge (Murphy, 2004) became entwined with this growing understanding of the interaction of children's and teachers' stories to live by in the negotiation of a curriculum of lives, children were understood as both identity makers and curriculum makers as they composed their lives in classrooms and schools (Clandinin et al., 2006; Murphy, 2004; Murray Orr, 2005; Pearce, 2005). In these ways, the negotiation of a curriculum of lives was imagined as a counter narrative to the dominant social, cultural, institutional, and linguistic narratives shaping lives in schools (Clandinin et al., 2006). Rather than seeing curriculum as only mandated subject matter, Clandinin et al wanted to make central teachers' and children's identities, their stories to live by, being composed in classrooms and schools.

In bringing these narrative understandings of the interwoven nature of curriculum making and identity making in the negotiation of a curriculum of lives in classrooms and schools alongside questions of the research evidence in teacher education program review processes at Canadian universities, and the kinds of decisions and processes that guide the use of research, we are, similar to Clandinin and Connelly's (1992) earlier call, also calling for the development of a new literature in relation with teacher education. Building upon Clandinin and Connelly's call for understanding "curriculum as a course of life" (p. 393), we, too, are

calling for understanding teacher education, and the review and renewal of teacher education programs, as a curriculum of lives.

In the sections that follow we make visible the negotiation of a curriculum of lives in a teacher education classroom as we inquire into Yi Li's earlier and subsequent poem alongside Schwab's (1969) four curriculum commonplaces—teacher, learner, subject matter, and milieu. We engage in this inquiry as narrative inquirers, that is, by simultaneously attending to the commonplaces of narrative inquiry (Connelly & Clandinin, 2006), temporality, sociality, and place. As described by Connelly and Clandinin (2006), in engaging in narrative inquiry we understand that

> People shape their daily lives by stories of who they and others are and as they interpret their past in terms of these stories. Story, in the current idiom, is a portal through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful. Narrative inquiry, the study of experience as story, then, is first and foremost a way of thinking about experience. Narrative inquiry as a methodology entails a view of the phenomenon. To use narrative inquiry methodology is to adopt a particular view of experience as phenomenon under study. (p. 375)

As we engage in inquiry holding these understandings in the foreground we understand the teachers and learners whose lives become visible as composing and recomposing storied identities, storied lives as they interact with one another, with subject matter, and with the milieux of university and school landscapes, each of which are also narrative phenomenon (Connelly & Clandinin, 1988; 1990; Clandinin & Connelly, 2000) [4].

Inquiring into the Negotiation of a Curriculum of Lives in a Teacher Education Classroom

Nervous
I write my course outline tentatively in August
planning the nine weeks of classes ahead
before I meet the teacher candidates
before I have a sense of who they are

Amazed
Several teacher candidates are recent immigrants to Manitoba
They want to become teachers
To help newcomer children and youth to learn
And to live a good life in Canada

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[4] For more detailed examples of this kind of narrative curriculum inquiry into the negotiation of a curriculum of lives, please see Chung & Clandinin (2009); Clandinin et al. (2006); Huber & Clandinin (2005); Huber, Murphy, & Clandinin (2005, 2011); Huber, 2008.

Challenged
How am I going to help all these 35 teacher candidates
Who are at various stages of their teacher development
To think about how to teach EAL students
To think about who she/he is becoming as an educator

Frustrated
When several teacher candidates ask me questions
About what their stories should be and how long they should write
They are expecting me to tell them what to do
As there are no right answers for them to come to

Patient
I write three stories of my own second language learning experiences
And read them aloud to the class one at a time as examples
I encourage them to ask me questions about these stories
To inquire into and learn together from these experiences

Confident
The teacher candidates will learn so much from their own stories
Of learning or teaching a second language
By writing the stories, sharing the stories
And wondering together about their meanings

Excited
The teacher candidates learn colors in ASL, Hebrew and Mandarin
count numbers in German, Tagalog and Greek
and say greetings in Cree, Ukrainian and Japanese
They realize what it takes to learn an additional language

Agonized
Every time I assign a grade to a teacher candidate's work
I am judging them, not helping them to learn
I use a pencil to write my response and grade
They can come to me if they disagree, I tell them

Happy
I invite teacher candidates to share their learning in a big circle
They each take turns to talk about
One most important thing that they will walk away with
From this community of learners

As Yi Li moved from the University of Alberta to the University of Manitoba to begin an academic position in the area of English as an Additional Language she was, at the same time, very excited and nervous. In an effort to address the needs of teacher candidates at the University of Manitoba a new policy had come into effect in September 2008. This policy was that all teacher candidates admitted to the Faculty of Education's two-year After Degree program are required to present three (3) credit hours of coursework in Special Education/Diversity and three (3) credit hours of Aboriginal Education out of the total 60

credit hours of their program in order to become certified teachers in the province. This policy emerged on the professional knowledge landscape of the University of Manitoba's Faculty of Education because the majority of teacher candidates are white, of European heritage, and speak English as their first language. However, in K-12 schools in the province, the teacher candidates work alongside children, youth, and families who are culturally and linguistically diverse. As she joined the Faculty of Education Yi Li felt this program change was shaped by progressive thinking by a forward-looking institution. Yi Li was happy to know she was going to teach one of the three Special Education/Diversity courses from which the teacher candidates could choose to meet this new programmatic diversity requirement.

At that time, Yi Li no longer saw herself as someone delivering a prescribed curriculum. Instead, she wanted to see herself, and to support the teacher candidates, to see themselves as co-composers of a curriculum of lives within the context of the course. However, the teacher candidates were not familiar with this new story Yi Li had learned to live and tell about who she was, and was becoming, as a curriculum maker attentive to who she and the teacher candidates were. The teacher candidates seemed more used to having professors deliver the curriculum to them. For example, even though Yi Li handed out all the marking rubrics at the beginning of the course, some of the teacher candidates felt that her expectations and explanations were not clear. These teacher candidates wanted Yi Li to tell them exactly what to do so they could get the right answers.

As we first read Yi Li's poetic narrative, in which she captured a kaleidoscope of emotional responses to her work alongside teacher candidates, it was evident that Yi Li is highly attentive to her relationships with students. As we inquired into Yi Li's experiences we noted how, the passage of time, which is evident both in terms of the unfolding of the course, and in the teacher candidates and Yi Li's lives earlier lived in differing places and languages, both of which become woven together in the course curriculum making. However, in this weaving of past and present lives both tensions and possibilities became shaped. For example, one of the tensions experienced by Yi Li was in relation with the meeting of her stories to live by of wanting to negotiate a curriculum of lives with the teacher candidates. In attempting to negotiate this more experiential, narrative inquiry-oriented curriculum both the teacher candidates and Yi Li experienced tensions with dominant social, cultural, and institutional narratives which still often situate teacher candidates and teacher educators as technicians who merely enact pre-scripted outcomes. These prescribed outcomes are, often, determined at a distance from the particular lives that meet in teacher education classrooms. This curriculum making in teacher education is radically different from the messier, less certain curriculum of lives which Yi Li and the teacher candidates negotiated as the teacher candidates gradually become comfortable with Yi Li's invitation for them to inquire into their own lives as she asked them to inquire into elements of sociality and temporality in their experiences of being second language learners. In this way Yi Li was scaffolding identity-making possibilities (Huber & Clandinin, 2004) for the teacher candidates through which they could begin to imagine themselves as teachers working alongside future children, youth, and families for whom English was not their first or only language.

By engaging in this negotiation of a curriculum of lives, Yi Li was attentive to the diverse lives in the teacher education class as she invited the teacher candidates to draw forward their own experiences with learning another language. However, as she did this, Yi Li encountered resistance to this curriculum making as some students did not see themselves as ever having

been in a place of struggling with a new language, struggles of rhythm, meaning, and fluency. For example:

> Yi Li recalled her shock when one of the teacher candidates, Lily[5], came to her after the first class during her first term. Lily seemed frustrated and angry and expressed that she thought it was unfair that she could not do a narrative inquiry into her own second language learning and teaching experiences as well as several others could in her class because she did not have any second language learning experiences.
> "Did you study any basic French in grade schools?" Yi Li asked Lily.
> "Yes, I did, but I didn't learn anything!" Lily answered, still with a confused look.
> "Well, write about it. Why do you think you didn't learn any French then? What were your experiences in those French classes?" Yi Li suggested.
> "I will try, but I don't think I can remember anything now." Lily left the classroom, not sure if she could ever complete this first assignment and wondering, like many others, why Yi Li did not just tell them the best method to teach a second language. (Remembered story, written on December 4, 2010)

As we inquired into Yi Li's memories of the above conversation, we see Yi Li attempting to make curriculum around experience by attending to Lily's life, both her life outside of the teacher education program and also as she composes her identity as a teacher candidate and future teacher. When Yi Li suggested that Lily had indeed been involved in learning a new language, just as the other teacher candidates from different countries had been, Yi Li invited Lily to inquire into her own experiences and by doing so, to become more wakeful to the identities, the lives, of future children, youth, and families whom Lily will work alongside in classrooms.

This is an important understanding in curriculum making situated in an understanding of the diverse lives of teacher candidates. If the teacher candidates are able to shape a curriculum around their own living then they engage in the possibility of considering that the children, youth, and families with whom they will work are also in the midst of composing diverse identities in curriculum making situations (Clandinin et al, 2006). Over the following several weeks as Lily and her classmates worked in small groups, sharing and responding to one another's stories, she slowly came to see that she was a second language learner even though previously she did not understand herself in that way. As Lily grew in this recognition she seemed to find it much easier to connect with the content of the course materials regarding EAL theories and practices once she put herself in the shoes of a second language learner.

Similarly, just as Lily was learning to attend to the lives of future children, youth, and family members, Yi Li, as a teacher educator alongside Lily, was learning about the lives of the teacher candidates in this teacher education classroom. And, through the processes of narrative inquiry into which Yi Li had invited Lily and all of the teacher candidates they were all learning about their own lives alongside one another's lives. For example, in reflecting on her learning about the diverse lives of the teacher candidates, Yi Li recalled her disappointment when several students did not show up for the last class during their first term together. At the time, Yi Li did not understand why bad weather would prevent the teacher candidates from coming to class. In fact, Yi Li felt that when the teacher candidates told her they could not travel on

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[5] *Lily* is a pseudonym for the student's actual name.

the bad roads, this was an excuse similar to: "My dog ate my homework." This had never happened when Yi Li was teaching in other places. However, some months later and after having lived through her first winter in Winnipeg, Yi Li understood something more about how dangerous it can be to drive on the slippery roads in a snow storm. When, months earlier, some of the teacher candidates had told Yi Li they could not come to class Yi Li had not known that several students actually lived in small towns outside the city and had to drive on the highway for 20 to 30 minutes in order to come to class. Through this experience Yi Li learned not to take it too personally when a teacher candidate misses a class or two because of bad weather! She also learned to shift her expectations and to attend to the lives of the teacher candidates in this new place of Winnipeg and Manitoba, where she is composing her life.

Imagining Forward with Hope

We five share an academic homeplace, the Centre for Research for Teacher Education and Development at the University of Alberta. It was at the "kitchen table" (Steeves, 2004) at the Centre that we came to know one another while we each engaged in various graduate programs. As described by Steeves,

> Central to the Centre for Research for Teacher Education and Development is a gathering room housing a large 'kitchen table,' which is a central place for meetings, seminars, classes and collaborative work. Every week, people come together for conversation and inquiry about research issues and interests. For the Research Issues Weekly forum, graduate students based at the Centre, students from other departments, faculties, visiting professors and research associates meet. Through sharing their commitment to education and their research and practice dilemmas, stories of experience unfold to broaden and deepen the learning that evolves from participating in this community. (p. 16)

The research issues table described by Steeves has continued to gather since 1990, every Tuesday at lunch time. As Mary participated at the research issues table she named all of us, and all of the people, past, present, and into the future, who gather there, "Tuesday people." There is, in Yi Li's above story of Lily's and her negotiation of a curriculum of lives a deep resonance with the research issues table process and protocols which Yi Li now carries as one of the "Tuesday people." While in Yi Li's story she did not tell of gathering around a large table with all of the many students, she shows us, as further described by Steeves, that as the course unfolded she was living out a process of continuously inviting and encouraging students into inquiry:

> In drawing people together, the Research Issues Table provides a rich inquiry space for researchers to work collaboratively for the purpose of furthering knowledge with a central focus on the educational experience of children, teachers, parents, student teachers and administrators. (p.16)

Yi Li's story shows us, that similar to our experiences at the research issues table when people gather to tell, think, feel, and imagine with stories of experience, trust develops, trust that gradually opens us up to becoming more attentive to who we each are and who we are

each becoming. Without this kind of relational grounding, in which students feel safe to reveal aspects of who they are, of what matters to them, of their fears and uncertainties in life and as they continue to become teachers, it is possible that the curriculum making in their teacher education classrooms might only ever include prescribed subject matter and, therefore, a focus on "the right answers" or on getting the "recipes" from the teacher educator about how or what to teach. Yi Li showed herself and the students negotiating this tension as they first met one another.

Yi Li's story also draws forward the deeply relational aspects of this process; it is an unfolding process which draws upon and is continuously made and remade by the entangling of the storied lives, the storied identities, of both students and teacher educators. In this shift from subject matter knowledge as the only content of teacher education, students are gradually opened up to becoming teachers who carry knowledge of the importance of attending to the gifts, to the identities, to the lives, of the children and youth with whom they work. In this way, teacher education becomes a deeply human process, a process attentive to lives in the making in the interaction of the lives of children, youth, families, and teachers with one another and with subject matters and the shaping influence of milieux, past, present, and future.

What stands out for us as we attend to these hopes in exploring teacher education as the ongoing negotiation of a curriculum of lives are the many potential reverberations. These reverberations might include an increased focus on all matters related to teacher education programs and their ongoing development. For example, if the negotiation of a curriculum of lives became important in teacher education programs, we imagine a reverberation that would change the dominant institutional narrative about which, and ways in which, students are accepted into teacher education programs. In this potential reverberation grades would be only one of multiple considerations. Additional multiple considerations could include greater attentiveness to the past and present lives of potential teacher candidates wakeful of ways in which each person's life experiences may shape important aspects of who they might become as a future teacher. For example, when a potential teacher candidate has learned to speak more than one language this experience may shape within them an understanding of the complexities of this ongoing process. In imagining this change in protocols around teacher candidate intake, we imagine that students who know that their acceptance into a teacher education program will only likely happen because of an institution's affirmative action policies, would feel a greater sense of belonging when their acceptance is based on their lives, on who they are and who they are becoming. And, an additional reverberation for students, particularly students of Aboriginal or newly immigrated backgrounds, for whom English is not a first language, might be a stronger sense of feeling celebrated for their diverse life capacities, including their rich cultural and language diversity.

Conclusion

May it be possible to re-consider the notion of program in teacher preparation as being the process of curriculum making and the notion of evidence as being the composition of teacher identities? We hope that the answer to this question is an inquiry response of "let me as a teacher educator attend to the lives of the teacher education students in my program for awhile

as a space wherein we together consider the dynamic of experiences on this complicated professional landscape with our experiences on the wider landscape of life and I will let you know."

Our paper advocates that, with the growing acceptance of narrative ways of knowing in educational research (e.g., Clandinin & Connelly, 2000; Craig & Olson, 2002; Lyons & LaBoskey, 2003; Miller, 1998), teacher education programs have the theoretical grounding on which to more intentionally attend to the curriculum of lives negotiated within the programs offered.

Clandinin and Connelly (1995) developed the idea of a "professional knowledge landscape" as a way to show and talk about the relationship among "space, place, and time" (p. 4) as teachers navigate professional contexts. They came to see that teachers' personal practical knowledge both shapes, and is shaped by, their professional contexts. Furthermore, the professional knowledge landscape

> has a sense of expansiveness and the possibility of being filled with diverse people, things, and events in different relationships. Understanding professional knowledge as comprising a landscape calls for a notion of professional knowledge as composed of a wide variety of components and influenced by a wide variety of people, places, and things. (pp. 4-5)

They described the professional knowledge landscape as being comprised of two fundamentally different places, the in-classroom place and the out-of-classroom place, places which teacher education students navigate within the local school setting and within the university. The plotline for teacher education programs of the past has been one of training candidates 'to conform to acceptable patterns' of teaching behavior (Smith, 1971, as referenced by Doyle, 1990, p. 4). In this view, teacher education students are to demonstrate conduit competence – showing their ability to enact the expectations of governing bodies.

While we recognize the importance of upholding public trust and the responsibility of teacher preparation programs to expect the same, an understanding of the negation of a curriculum of lives acknowledges the importance of the process of developing personal professional knowledge so as to fulfill the expectation of public trust with integrity. A goal such as this demands identity work. Researchers observe that

> a generally unstated but underlying assumption of teacher education programs is that teacher education moves teachers from the position of student to teacher and supports them in developing a teacher identity. (Clandinin & Connelly, 1992, p. 236)

Knowing that who teacher education students become as teachers emerges from who they are as people (Bullough & Gitlin, 1995), means that "preservice teachers bring to teaching a variety of identity narratives and that the characteristics of the program as well as the background of the student both contribute to the development of the preservice teacher as a teacher (Dulude Lay, et. al., p. 237).

What these narrative conceptualizations bring to teacher education are understandings that teacher education students are interacting within an extremely complex world of in- and out-of-classroom places. They bring their life narratives composed prior to entering the program to interact with children, youth, families, subject matter, and colleagues in schools, with broader social cultural milieus which structure life in schools; and with the program activities, courses and personnel in universities. On this professional knowledge landscape,

they are in a continuous process of negotiating and renegotiating their identities, their stories to live by, as they interact with us, as teacher educators in the milieu of the university: "The relationship between preservice teachers and teacher educators is definitely a situation where people construct each other and are constantly negotiating position" (Dulude Lay, et. al., p. 250). It is to these interactions between the teacher education students' stories to live by and those of the teacher educators that is the process of curriculum making in teacher education programs.

If we attend to Clandinin and Connelly's (1992) understanding of curriculum making as an "account of teachers' and children's lives together in schools and classrooms" (p. 392), and extend this to teacher education classrooms, then we must understand curriculum making as something that is situated in the diverse lives of teacher educators and teacher candidates in university classrooms. This understanding interrupts a programmatic view of teacher education that assumes an overview of who teacher candidates will be and what they will need when they complete their teacher education. We imagine, that by carefully and thoughtfully scaffolding identity making possibilities in a curriculum attentive to teacher candidates' diverse lives, that they too will be attentive to identity making and curriculum making possibilities in the lives of the children and youth with whom they will work.

Huber and Clandinin (2005) offer the challenge that we will continue to face as teacher educators:

> As university professors who live lives as teacher educators, curriculum theorists and researchers we can choose to distance ourselves from these lives [the lives of our teacher education students]. We can choose to comment on the practices of teachers, the rankings of schools, and the quality of assessment measures. Or we can choose to position ourselves alongside the teachers who choose to take on the task of negotiating a curriculum of lives. The question we need to ask ourselves as we compose our lives is who we are in this metaphoric parade and what is our responsibility to the people, the pre-service teachers, teachers and children, who choose to dance alongside us. This question is one we keep before us, a question we live by, as we continue to engage in composing our own lives as teacher educators, curriculum theorists and researchers. (p. 333)

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