# FRAMING AN INTEGRATIVE APPROACH TO THE EDUCATION AND DEVELOPMENT OF TEACHERS IN CANADA

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ABSTRACT. The education of teachers in Canada typically consists of a sequence of non-integrated and partially alternating phases: pre-service university-based course work, pre-service school-based practica, job-imbedded induction, professional development sessions. This article proposes an integrative approach to the education of teachers that links these different phases: Collaborative Professional Development Centres. The article draws on teacher education scholarship and research to articulate a number of assumptions about learning to teach and the purpose of teacher education, and then argues (a) that the traditional non-integrated approach to the education of teachers is incompatible with these assumptions, and (b) that these assumptions provide an excellent framework for the idea of Collaborative Professional Development Centres.

FORMULER UNE APPROCHE INTÉGRÉE DE LA FORMATION ET DU DÉVELOPPEMENT DES ENSEIGNANTS AU CANADA

RÉSUMÉ. La formation des enseignants au Canada se résume typiquement en une séquence de phases non intégrées et plus ou moins alternées : des travaux universitaires précédant l'expérience en classe, des stages en classe visant à former les futurs maîtres, l'intégration en milieu de travail et des sessions de développement professionnel. Dans ce texte, l'auteur propose de former les enseignants par le biais d'une approche intégrée, reliant les différentes phases, au sein de centres coopératifs de développement professionnel. Se basant sur le savoir académique et la recherche en formation des enseignants, l'auteur émet une série d'hypothèses en ce qui a trait à « apprendre à enseigner » et le but de la formation des futurs maîtres. Ensuite, il soutient que (a) l'approche traditionnelle non intégrée utilisée pour former les enseignants est incompatible avec ces hypothèses et que (b) ces hypothèses forment un excellent cadre, une base pour la création de centres coopératifs de développement professionnel.

## INTRODUCTION

In Canada, the education of school teachers is divided into the pre-service phase and the in-service phase. The first phase is separated into university-based course work and school-based practica, while the second phase is sometimes

separated into the induction (initial teaching) and post-induction phases. The two main phases of the education of teachers are not only chronologically separated, they are also divided with respect to location and responsibility, with university-based responsibility for pre-service education and field-based responsibility for induction and beyond. Also, there is generally very little contact between the university and the field in the different phases of the education of teachers: the university-based course work phase of pre-service education happens with very little influence from the field, while the school-based practicum and in-service phase happen with very little influence from the university.

As a result of this division, the education of teachers in Canada is marked by disconnectedness and incoherence. While a division of place, time, personnel, and responsibility in the different phases in the education of teachers could reflect different purposes and foci in the overall preparation of teachers, the *division of labour* that exists in the course work and in the practicum is detrimental to teacher candidates' learning to teach for at least two reasons. First, research indicates a prominent "washing out" effect of the university-based pre-service learning once graduates move into the in-service phase and are socialized into the teaching and learning practices in their respective schools (see the references in Brouwer & Korthagen, 2005, pp. 154-155). Second, research points to the importance of connections and coherence as central features of successful teacher education programs (see the references in Darling-Hammond & Hammerness, 2005, p. 392).

The need for an *integrative* approach to the education of teachers has been considered in the U.S. at least since the late 1980s through the concept of professional development schools (PDSs). In the US, PDSs were originally promoted by the Holmes Group, a group of four deans of education (Holmes Group, 1990), although a proposal to develop school-university partnerships through "partner schools" had already been made earlier by John Goodlad (1984).[1] For the Holmes Group, PDSs had four purposes. The first three concern the development of the teaching profession: (1) developing novice professionals (pre-service teachers and beginning teachers); (2) continuing the development of experienced professionals; (3) and doing research for the development of the teaching profession. PDSs were the Holmes Group's effort to support school reform by providing an institutional framework for ongoing and collaborative teacher professional development (Holmes Group, 2007, p. 97). In other words, the main concern of the Holmes Group was for better learning for all students, which is at the heart of educational reform efforts, and which is the fourth, overarching purpose of PDSs. Lee Teitel (1999, p. 12) suggests that the discussions about PDSs have now converged around these four goals, which can also be found on the website of the American Association of Colleges for Teacher Education (www.aacte.org), although some

authors still propose slightly different purposes for PDSs (e.g., Boyle-Baise & McIntyre, 2008; Clark, 1999).

PDSs are relatively widespread in the US. The American Association of Colleges for Teacher Education estimates that there are more than 1000 PDSs in 47 states in operation in the US (Darling-Hammond, 2005b, p. x), although Fullan, Galluzzo, Morris, and Watson (1998) give us reasons to be cautious about a too-optimistic interpretation of those numbers: "The extent to which a professional development school actually exemplifies the characteristics outlined in *Tomorrow's Schools* [the Holmes Group's publication on PDSs] is difficult to determine, but many of our interviews suggested that the gap between rhetoric and reality is wide" (p. 31). The case is quite different in Canada, where the idea of PDSs has not really taken off. I was only able to find one PDS-project in Alberta from the late 1990s (on a now disconnected link on the website of the Alberta Teachers' Association) and a PDS approach to pre-service teacher education that started in 2007 at Wilfrid Laurier University (Buzza, Kotsopoulos, Mueller, & Johnston, 2010). There are a number of different school-university partnerships in Canada (Falkenberg & Smits, 2010), which, however, do not have all the central qualities of PDSs as defined by the Holmes Group.[2]

Because of the interest in PDSs in the US, much has been written about this approach to educating teacher candidates (see, for instance, Darling-Hammond, 2005c; Johnston, 2000; Levine & Trachtman, 1997) and about how to implement an effective PDS (see, for instance, Clark, 1999; Teitel, 2003). However, what has not been written about to any extent are the core conceptual and empirical assumptions that underlie the idea of PDSs as defined by the Holmes Group. Such core assumptions provide the rationale for a PDS as an integrative approach to teacher education and teacher development. In the main part of this article I develop a framework of such core assumptions.

In the next section I discuss in more detail the different phases and what I called above the "division of labour" in the education of teachers in Canada. Then, I introduce an integrative approach to the education of teachers that is a slight modification of PDSs, which I call Collaborative Professional Development Centres (CPDCs). In the main part of the paper, I provide two sets of empirical and conceptual assumptions about learning to teach and the purpose of the education of teachers that serve as the core assumptions for conceptualizing a CPDC as an integrative approach to the education of teachers.

## THE NON-INTEGRATED CONTINUUM OF THE EDUCATION OF TEACHERS IN CANADA

The education of teachers should be conceptualized as on-going, beginning long before teacher candidates enter a teacher education program and ending not before retirement. The phases of the continuum of the education of teachers are represented in Figure 1.

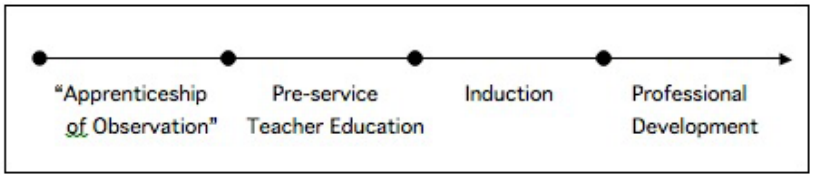


FIGURE 1. *The continuum of the education of teachers*

The education of teachers begins with what Dan Lortie (1975) has called *the Apprenticeship of Observation*.[3] When teacher candidates enter a Canadian teacher education program, they have about 15,000 hours of observation of and experience with teaching in schools, as ex-students in the K-12 school system. As Lortie (1975) points out, being a student functions for many people as an *apprenticeship for being a teacher*: "The interaction [in the classroom] is not passive observation... the student learns to 'take the role' of the classroom teacher, to engage in at least enough empathy to anticipate the teacher's probable reaction to his behaviour. This requires that the student project himself into the teacher's position and imagine how he feels about various student actions" (pp. 61-62).

The Apprenticeship of Observation affects the subsequent phases of the education of teachers by shaping teacher candidates' beliefs about and attitudes towards teaching and learning when they enter a pre-service teacher education program. The literature on learning to teach suggests, first, that many teacher candidates bring problematic beliefs about teaching and learning into their pre-service programs (Hammerness, Darling-Hammond, Bransford, 2005; Lortie, 1975; Richardson, 1996; Wideen, Mayer-Smith, & Moon, 1998), and, second, that it is very difficult to change those beliefs in pre-service programs (Britzman, 2003; Richardson & Placier, 2001; Wideen et al., 1998). The reason for those difficulties is that teacher candidates' beliefs about teaching and learning function as their *frames of reference* (Kennedy, 1999) or their *filters* (Wideen et al., 1998, p. 145), which they use to make sense (or no sense) of what they experience in their course work and in their practicum teaching.

Next in the education of teachers is the *pre-service teacher education phase*. The term "teacher education" is generally used to refer to only this phase. The third phase is the *induction phase*, which encompasses the first three to seven years of teaching, in which a new teacher generally moves from surviving and discovering to experimenting and then consolidating her teaching practices (Berliner, 1986).[4] According to my knowledge of the induction phase in the Canadian school system, most teachers are inducted into teaching without any particular support, although a number of school divisions have implemented mentoring programs for beginning teachers.

The last and by far longest phase in the education of teachers is *the professional development phase*, which encompasses the time of certified teaching that

follows the induction phase and ends with retirement. Technically, the induction phase should be part of the professional development phase. However, I have kept the two phases separate, because they are distinct in terms of the specific developmental and structural qualities that they have as phases of the education of teachers.

In Canada, teachers' professional development is very much conceptualized and perceived as a responsibility of the individual teacher, although, some school divisions monitor their teachers' engagement in regular professional development. The continued education of teachers in Canada does not seem to be given a high priority in school divisions. Linda Darling-Hammond (2005a, p. 4) points out that in the US "school districts spend less than one half of 1% of their budgets on professional development for teachers, as compared with nearly 10% of revenues spent on employee education by corporations." I believe the situation is not much different in Canada, where there are generally two educationally distinct paths of professional development in this phase. First, there are short-term in-service sessions, which are mostly school division based or sponsored by the provincial government or a teachers' union, and which generally do not last longer than one day. Second, there are long-term university-based degree or certificate programs, generally post baccalaureate certificate programs or master's programs.

The last three phases of the continuum of the education of teachers have three elements that are problematic with respect to the non-integration and separation between the ways in which the school system on the one side and university programs on the other side contribute to the education of teachers. The first element is *the division of labour* in the education of teachers. This division manifests itself in two ways. First, the pre-service teacher education phase is separated from the two subsequent phases in terms of responsibility and location: in the pre-service phase, the university faculty is responsible for the education of teacher candidates, while in the subsequent two phases the responsibility lies with the teachers themselves and the school divisions; the place of learning during the pre-service phase is primarily in university courses, while the place of learning during the other two phases is primarily in the school system. The second way in which the division of labour manifests itself lies in the pre-service phase itself. In my experience, almost all pre-service programs in Canada separate the university-based coursework from the school-based practicum.

The second problematic element of non-integration and separation in the education of teachers is that *the cultures* of the university and the school system are very distinct, a point that has been made by several authors (e.g., Sarason, 1982), in particular by those who argue for school-university partnerships (see, for instance, Petrie, 1995; Stoddart, 1993). Teachers in the school system and those at the university are enculturated into and generally sustain different cultures. Schools have different reward and accountability structures (hiring,

merit, promotion) than faculties of education, which are part of the university system. In addition to those social-contextual conditions, members of faculties of education and teachers in schools have generally a different orientation toward teaching: school teachers focus on teaching as a practice that helps their students learn, while faculty members tend to focus more on the learning to teach aspect of teaching.

The third problematic element of non-integration and separation in the education of teachers is that generally members of the school systems have quite *different perspectives on pre-service teacher education* than university faculty: the school system tends to see pre-service teacher education as preparing teacher candidates to fit smoothly into the day-to-day activities of the schools, while many university-based teacher educators are concerned with educational reform, with alternative teaching practices, and with teaching as a transformative practice (see, for instance, Field, 2008; Grimmett, 1995; Solomon, Manoukian & Clarke, 2007).

In the next section, I outline a particular model for a continuous education of teachers that provides a working framework for overcoming these three problematic elements by integrating the education of teachers across university and field contexts and across the different phases of the education of teachers.

## AN INTEGRATIVE APPROACH TO THE EDUCATION OF TEACHERS

Integrative approaches to teacher education programming that focus on different aspects of the program have been suggested (Beck & Kosnick, 2006). In this paper I focus on the integration of the university course work and field placement in the pre-service phase and the integration of the different phases of the continuum of the education of teachers described in the previous section. The integrative model I propose here – the collaborative professional development centre (CPDC) – is a modified version of what is known in the literature as the professional development school (PDS) model for pres-service teacher education and teacher development (Darling-Hammond, 2005c). I will first describe the PDS model and then outline in what ways CPDCs differ from PDSs.

PDSs are school-university partnerships that provide structure for on-going professional development. In PDSs, veteran teachers, beginning teachers, teacher candidates, and university faculty members build learning communities that inquire into teaching practices (for US case studies of PDSs, see Darling-Hammond, 2005c; Levine & Trachtman, 1997). Darling-Hammond (2005a) characterizes the contributions that PDSs can make to the professional development of all participants as follows.

> [PDSs] support the learning of prospective teachers and beginning teachers by creating settings in which novices enter professional practice by working

> with expert practitioners . . . . [They enable] veteran teachers to renew their own professional development and assume new roles as mentors, university adjuncts, and teacher leaders. They allow school university educators to engage jointly in research and rethinking of practice, thus creating an opportunity for the profession to expand its knowledge base by putting research into practice – and practice into research. (p. 1)

Historically, "the PDS schools are an evolution of the concept of the laboratory school, created by many education schools earlier in the century" (Darling-Hammond, 2006, pp. 154-155). In the U.S., the idea of PDSs as sites of school reform, teacher education, and on-going professional development go back to the Holmes Report, as described above. Generally, in a PDS one would see classroom observations, collaborative teaching practices, and regular meetings of beginning teachers, veteran teachers, faculty members, and teacher candidates (while they are in their practicum). Those meetings would revolve around professional conversations about improving and developing the teaching practices of those involved.

There are a number of studies that document a positive impact of the PDS model on teacher candidates' learning to teach, on the schools themselves, and the students in the schools (for overviews, see Arends & Winitzky, 1996, pp. 542-545; Clift & Brady, 2005, pp. 328-329; and Darling-Hammond, 2005b, pp. x-xi). However, Clift and Brady (2005, p. 329) point to limitations of most of those studies: "most of the research was done by university-based faculty who were stakeholders in the PDS they studied," and Darling-Hammond and Hammerness (2005, p. 415) point to studies with "competing findings about whether teachers trained in schools with this label are better prepared." On the other hand, both authors suggest a link between those competing findings and the fact that "many sites that have adopted the label [of a PDS] have not created the strong relationships or adopted the set of practices anticipated for such schools," which is the reason why the US-based National Council for Accreditation of Teacher Education has defined standards for PDSs (see http://www.ncate.org/public/pdsWelcome.asp; and Sykes, 1997).

PDSs face many challenges. Establishing and maintaining the collaborative relationship between school teachers and faculty members is one of the big institutional challenges for the PDS model (Darling-Hammond, 2005a, p. 20). Two reasons for this challenge lie in what could be called the *culture problem* and the *role problem*. The culture problem results from the different cultures that exist in schools and faculties of education and into which faculties at school and the university are enculturated (see my comments on the culture problem above; see also Petrie, 1995; and Stoddart, 1993). The role problem results from what Stoddart (1993), with reference to case studies, identifies as the uncertainty by school teachers and faculty members about what role each is to play in the PDS.

The form of school-university partnership promoted in this paper – Collaborative Professional Development Centre (CPDC) – is conceptualized in response to these two problems faced by PDSs. The defining difference between the two forms of school-university partnership is that PDSs are centres of on-going professional development organized *at the school level*, while CPDCs provide the same kind of on-going professional development at the *school-divisional level*.[5] In CPDCs, beginning teachers and veteran teachers from across the school division meet with teacher candidates from their respective schools and with university faculty members to build learning communities that inquire into teaching practices, as is done in PDSs. Moving the collaboration – at least initially – away from a particular school with its particular culture and context, can help address the culture problem that PDSs face. Also, in a CPDC, it is less defined who is an "outsider" and who is an "insider," because all teachers are "outsiders" relative to the other teachers and faculty members, because a CPDC is not school-based. The distinction between "outsiders" and "insiders" is a central issue for the role problem in PDSs.

What are Canadian teacher education institutions and Canadian school divisions to do in light of empirical evidence that, on one hand, strongly suggests a positive impact of a well developed PDS and, on the other hand, documents the challenges that the creation and sustainability of such a collaboration face? To provide additional argumentative support for the suggested reform, the next section provides a *plausibility argument* for CPDCs: the section provides *sets of assumptions* about the pre-service and in-service education of teachers, some of which are strongly supported in the research literature; these assumptions provide *the framework* into which the model of a CPDC is fitted as the structural context for learning to teach and for professional development. In other words, if one accepts the proposed assumptions about learning and teaching in the education of teachers, adopting the structural model of a CPDC is a very reasonable move. The proposed assumptions, then, become a powerful rationale for adopting the CPDC model as the structural framework for the education of teachers. This rationale complements the direct empirical evidence of the positive impact that "highly developed PDSs" (Darling-Hammond, 2005b, pp. x) have on the development of teachers.

The PDS provides *the* integrative approach to the education of teachers in the US, and the scholarly literature on PDSs can be categorized into three "themes": (1) the features of PDSs (Holmes Group, 1990;Teitel, 1999) and the issue of standardization of PDSs (Murray, 1993; Sykes, 1997); (2) how particular PDSs work and how to get PDSs to work successfully (Darling-Hammond, 2005c; Levine & Trachtman, 1997; Ravid & Handler, 2001; Stallings & Kowalski, 1990; Teitel, 2003); (3) the rationale for PDSs as the context for professional education and development. Since direct empirical evidence for the effectiveness of PDSs provide a rationale for adopting PDSs, publications that provide such evidence address the third theme. Similarly, the plausibility argument

provided in this paper speaks to the third theme. So far, the attention given to this third theme is almost exclusively on outcome-focused evidence for the effectiveness of PDSs. Almost no attention is given to the *framing* of PDSs as part of a plausibility argument. This seems to be due to the particular political context in the US, in which certain types of evidence for educational policy and decision making are given preference over others (Darling-Hammond, 2000). In this article, I provide a plausibility argument for CPDCs/PDSs that should as well strengthen the rationale for these structural models of teacher education and teacher development.

## FRAMING COLLABORATIVE PROFESSIONAL DEVELOPMENT CENTRES

In this section I discuss two sets of assumptions about what good teacher education looks like that are relevant for the plausibility argument for an integrated approach to the education of teachers as exemplified by CPDCs. (The arguments I provide in this section apply also to PDSs, unless otherwise stated.) I use the term "assumptions" here to denote our beliefs about teacher education; those assumptions can be grounded in empirical findings, in normative stances, or in a combination of both. The first set of assumptions concerns the question of how teachers learn to teach. These are mainly derived from empirical studies. The second set of assumptions concerns the question of what we educate teachers for. These are based on value judgments about the purpose of teacher education. In the following I discuss each set of assumptions and how they serve as a framework for CPDCs.

### *Learning to teach*

In what follows, I discuss issues that have been raised in the literature for each of the last three phases of the education of teachers around the question of how teachers learn to teach. For each issue I present assumptions that can be made in response to the issue. I then argue that CPDCs are a fitting structural response to these assumptions.

*Pre-service teacher education phase.* One central issue that has been raised in the learning to teach literature is the problem that Mary Kennedy (1999, p. 70) has called *the Problem of Enactment* (see also Darling-Hammond, 2006, pp. 37-38). This problem arises when teachers (classroom teachers, teacher candidates, and faculty members) use different frames of references when talking about and enacting ideas of teaching and learning, like "constructivist teaching" or "group work." Furthermore, even within the same frame of reference, there is usually a range of possible ways to enact the respective ideas about teaching and learning.

The Problem of Enactment is a great challenge to *non-integrated* pre-service teacher education programs. The coursework within such programs is designed to help teacher candidates to develop their ideas about teaching and learning.

However, the Problem of Enactment suggests that such help can become easily futile if the ideas about teaching and learning that faculty members and teacher candidates have are not "enacted". It is in the enactment of those ideas that different frames of references manifest themselves; and it is only through such enactment that one can get a sense of what ideas one is *actually* talking about, especially if the same frame of reference is used.

The Apprenticeship of Observation phenomenon suggests that generally teacher candidates have different frames of references for teaching and learning when they enter pre-service teacher education programs. To address these frames of references in a way that accounts for the Problem of Enactment, teacher education programs have to help teacher candidates to develop "situated understandings of important ideas" (Kennedy, 1999, p. 75). CPDCs are far better able to address the Problem of Enactment than the traditional divisional structure of university-based course work and practicum teaching, since CPDCs provide the structural context for embedding and linking theoretical conceptualizations to concrete teaching practice and teaching situations.

Another central issue raised in the literature on learning to teach relevant to the discussion here is the role of "guided practice" in learning to teach. In reviewing research literature on learning to teach, Borko and Putnam (1996) find that

> one strategy that seems to be successful in promoting novice teachers' learning of subject matter knowledge and pedagogical content knowledge is to have them engage in experiences that mirror the experiences we would like them to create in their own classrooms. (p. 701)

However, such practicing of enacting of ideas about teaching cannot simply be a form of imitative practice of surface features of teaching. Feiman-Nemser (2001) points out that just practicing teaching in field experiences is not enough; rather, teacher educators need to make sure that their students "learn desirable lessons from them [the field experiences]" (p. 1024). Drawing on a number of studies, Hammerness, Darling-Hammond, and Bransford (2005) point out that "when teachers learn content-specific strategies and tools that they are able to try immediately and continue to refine with a group of colleagues in a learning community, they are more able to enact new practices effectively" (p. 375).

CPDCs are ideally set up to allow for this kind of learning. With experienced teachers being part of a CPDC, teacher candidates have not just an opportunity to see good classroom teaching and try such teaching themselves, but they are also supported in developing the vision about teaching and learning underlying such practice so that their learning to teach goes beyond an imitative practice of surface features of good teaching.

In their own framing of PDSs as an integrated approach to the education of teachers, Darling-Hammond and Cobb (1996, p. 46) argue for PDSs from a

constructivist perspective. They argue that in order for teacher candidates to develop deep understanding of teaching, the most promising structural context is an integrated approach to their development – as offered in CPDCs:

> Probably the most important recognition of these various teacher education reforms is that prospective teachers must be taught in the same ways in which they will be expected to teach. Like their students must do, teachers also construct their own understanding by doing: collaborating, inquiring into problems, trying and testing ideas, evaluating and reflecting on the outcomes of their work. As teacher educators, beginning teachers, and experienced teachers work together on real problems of practice in learner-centred settings, they develop a collective knowledge base, along with ownership and participation in a [*sic*] developing a common set of understandings about practice. This development promotes deep understanding that cannot be obtained in coursework alone, although the foundation may be laid in coursework that provides a broader, theoretical frame for developing and interpreting practice. (Darling-Hammond & Cobb, 1996, p. 46)

Furthermore, Darling-Hammond (2005a) draws on more recent views about teachers' practical knowledge as being *implicitly* known due to their enacted teaching (Munby, Russell, & Martin, 2001) and the importance of this "context-based knowledge". Darling-Hammond makes the point that integrated approaches like PDSs and CPDCs are more likely to draw on and acknowledge this more implicitly known practical knowledge than traditional non-integrated approaches:

> Miller and Silvernail describe how this traditional status distinction [between research-based and context-based knowledge] is disrupted and reshaped in the PDS as the perspectives and insights of practicing teachers are acknowledged and incorporated into the preservice program. This occurs as experienced teachers talk about the tacit understandings and informal rules of practice that underpin their knowledge of teaching. (Darling-Hammond, 2005a, p. 15)

*Induction phase*: All teachers face the complexity of teaching, but beginning teachers face particular challenges. Feiman-Nemser (2001) lists six domains of learning to teach that beginning teachers face: gaining local knowledge of students, curriculum, and school context; designing responsive curriculum and instruction; enacting a beginning repertoire in purposeful ways; creating a classroom learning community; developing a professional identity; and learning in and from practice (meaning that beginning teachers should learn to learn from their own practice of teaching). Several scholars in the US have critically assessed current mentoring programs and school structures, suggesting that they hinder more than support the facilitation of this crucial learning. In my experience, this criticism applies fully to the Canadian context. Following are some of the critical aspects relevant to the discussion in this paper (I draw here particularly on Feiman-Nemser, 2001, and Johnson, 2004).

First, "induction happens with or without a formal [mentoring] program" (Feiman-Nemser, 2001, p. 1030). Induction without a program can be a great

challenge for beginning teachers because of the complexity of teaching. Facing this complexity without adequate support seems to have implications for retaining new teachers. According to the Canadian Teacher Federation (CTF, 2004) close to 30% of beginning teachers leave the profession in Canada within the first five years; in the US the number is estimated at 30-50% (Darling-Hammond, 2005a, p. 9). Second, a one-to-one mentorship form of induction faces several challenges: the problem of matchmaking, and the problem of finding practicing teachers will be good teacher educators (it is often wrongly assumed that good teachers are also good teacher educators). Third, there are a number of conditions in schools as they are organized today that constrain meaningful induction programs. Staffing needs and teacher contracts often get in the way of creating the necessary learning conditions for new teachers, for instance, when beginning teachers receive the most difficult classes to teach and teach subjects they are not adequately prepared for. Furthermore, the individualistic working culture that is so dominant in Canadian school teaching (Hargreaves, 1992) works against on-going collaboration to improve teaching practices. This challenges the development and sustainability of a working culture in which new-teacher induction is seen as a communal responsibility of all teachers. Also, "norms of politeness and the desire for harmony create additional barriers to productive mentoring interaction" (Feiman-Nemser, 2001, p. 1033), because mentoring requires meaningful assessment of learning. Mentoring interaction that is guided by the notion of "critical friendship" (Bambino, 2002) seems far more conducive to effective mentoring of adult learners.

CPDCs provide an ideal structural and institutional context for beginning teachers to continue developing their adaptive expertise. CPDCs are designed to provide on-going support for the participants' teaching and their students' learning. CPDCs shift the traditional one-to-one mentorship (if it exists at all) to a communal mentoring responsibility and, thus, provide a good opportunity to overcome the challenges of the current induction phase as described above. CPDCs also provide the space for critical friendships, which might even be easier to form in CPDCs than in PDSs, since the former involve teachers from different schools. In CPDCs, veteran teachers discuss and work on the challenges that they face in their teaching; it can be comforting to beginning teachers to see firsthand that facing challenges is an integral part of teaching and not limited to new teachers.

*Professional development phase*: Quite a number of publications on professional development for teachers suggest that there is now an "overwhelming consensus" (Reitzug, 2002, p. 12.13) on what principles characterize effective professional development. Hawley and Valli (1999) and Reitzug (2002) each provide a list of such principles. Each list is grounded in empirical research on professional development. Following is a list of those seven principles of effective professional development that both lists have in common.

1. Professional development should be driven by identified gaps between actual and desired student learning and the improvement of teaching practice to address those gaps.

2. What and how professional learning opportunities are provided should be co-constructed with the learners (teachers).

3. Professional development should be school-based.

4. Professional development should be organized around *collaborative* problem solving in a community of learners in which teachers interact with each other.

5. Professional development should be inquiry oriented; Wilson and Berne (1999) express this point as follows: "teacher learning ought not be bound and *delivered* but rather *activated*" (p. 194; emphasis in original).

6. Professional development should be continuous and should be supported by school and division leaderships and by modelling and coaching.

7. Professional development should be part of a comprehensive change process (in a whole school division, for instance) and should not just be focused on the development of individual teachers.

It is clear that any attempt at truly addressing the continuous education of certified teachers needs to consider these seven characteristics of effective professional development.

With the exception of point 3, CPDCs have by design all these characteristics of effective professional development. Point 3 in the list is, though, controversial. Guskey (2003), for instance, writes in his review of 13 lists of characteristics of effective professional development: "The majority of lists stress that professional development should be school- or site-based, even though significant research evidence suggests otherwise" (p. 749). The evidence Guskey references suggests that effective professional development is more a question of *who* makes the decision about professional development rather than *where* the site of the professional development is. What Guskey suggests here is that professional development does not have to be school-based; rather, it should be co-constructed by and with the learners (teachers). However, this feature is considered in point 2 in the list above and is a characteristic of CPDCs.

Framing PDSs and CPDCs as the more appropriate way to support the education of teachers, Darling-Hammond (2005a) makes the additional assumption that "teachers are most likely to engage students in these kinds of cooperative learning experiences when they themselves have been involved in such opportunities" (p. 13). PDSs and CPDCs provide such opportunities far better than the traditional non-integrative approaches to the education of teachers.

According to Darling-Hammond (2005a), PDSs (and CPDCs) are not just the better responses to the constructivist assumptions about learning for teacher candidates but also for teachers and teacher educators:

> Some of the most central features of these new ways of knowing that are being enacted in PDSs are extensions of the constructivist understandings of knowledge that teachers and teacher educators have appreciated on behalf of children, and are just now beginning to extend to themselves and the knowledge base for their own work. (Darling-Hammond, 2005a, p. 16)

### *The purpose of the education of teachers*

Elsewhere (Falkenberg, 2007), I have illustrated how different sets of assumptions about the human condition result in different views about how teaching as a moral enterprise is conceptualized. Similarly, different assumptions about the purpose of educating teachers will result in different views about *how* teachers are best educated. Accordingly, in this section I discuss those assumptions that CPDCs address well.

Much has been written on the purpose of educating teachers, in particular in the pre-service phase (see, for instance, the chapters in part 1 in Cochran-Smith, Feiman-Nemser, McIntyre, & Demers, 2008). Here I focus on those aspects of the purpose of pre-service teacher education that concern *the institutionalized context* of that education, like university-based teacher education programs, PDSs, and so on. The assumptions I am making here about the purpose of teacher education are fairly general, which allows me to argue for CPDCs as a fitting institutionalized context for teacher education for a larger range of specific views on the purpose of teacher education.

There are two groups of assumptions. The first group concerns the technical/practical aspect of being a teacher, which is exemplified by the vision of the teacher having "adaptive expertise." The second group concerns the "normative/ethical" aspect of being a teacher, which is exemplified by the notion of moral wisdom. This second aspect gives consideration to the view of teaching as a moral practice (Falkenberg, 2007, 2009; Sockett, 2008). It is only for heuristic reasons that I separate both aspects here, since in teaching both are not separated. I address each aspect in turn.

The literature on learning to teach addresses the question of what the objective of the education of teachers is. A recent volume sponsored by the US-based National Academy of Education (Darling-Hammond & Bransford, 2005) suggests that "the development of 'adaptive expertise' provides an appropriate gold standard for becoming a professional" (Hammerness, Darling-Hammond, & Bransford, 2005, p. 360). Bransford, Derry, Berliner, & Hammerness (2005, pp. 48-52) explain that "adaptive expertise" in a particular domain (for instance teaching) has two dimensions: an efficiency dimension and an innovation dimension. The former characterizes teachers who are able to effectively and

efficiently execute teaching routines and respond to routine demands habitually (routine expert). However, because of the "complexity of teaching" (Darling-Hammond, 2006; Hammerness et al., 2005), just being able to execute routine teaching practices is not sufficient, in particular if the teaching aims to help students develop conceptual understanding. For that reason, teachers' expertise needs to include an *innovative* dimension as well to deal with the non-routine elements of teaching. Metacognition is an important aspect of this innovative dimension of adaptive expertise (Hammerness et al., 2005, p. 376; National Research Council, 2000).

It has important implications for pre-service teacher education programs to assume that the development of adaptive expertise is important in learning to teach. Since the innovative dimension is directly linked to a teaching context, helping teacher candidates to develop the innovative dimension of their teaching expertise seems to require a strong link between immediate teaching experience and opportunities to reflect (with guidance) on those experiences. In CPDCs, reflective inquiry into one's own and others' teaching practices is an integral component, which provides an ideal opportunity for teacher candidates to develop metacognition and the innovation dimension of their adaptive expertise through "purposeful, integrated field experience" (Feiman-Nemser, 2001, p. 1024; see Hammerness, Darling-Hammond, & Bransford, 2005, p. 375, for studies supporting this idea).

The purpose of preparing teacher candidates for "life-long learning" is often mentioned in the literature on pre-service teacher education, which should not surprise, considering that no teacher education program will be able to prepare teachers completely for their work in schools. They will need to continue learning to teach once they are teaching in the school system. What is generally left out of the discussion is the question about what type of professional learning they should be prepared for. Assuming that the type of professional development discussed in the previous section is the preferred type for life-long teacher learning, pre-service teacher education within CPDCs seems to ideally prepare teacher candidates for this type of life-long professional learning.

CPDCs are also a good fit with particular sets of assumptions about the normative aspect of being a teacher. What I have called "moral wisdom" in the practice of teaching, Anne Phelan (2005) has called "discernment," which she characterizes as "a teacher's capacity to see the significance of a situation, to imagine various possibilities for action and to judge ethically how one ought to act on any given occasion" (p. 62). As Phelan (2005) suggests: "developing the capacity for discernment [moral wisdom] takes the form of a reflective process wherein prospective teachers [and certified teachers] narrate and reflect . . . about their direct and indirect experience in practice settings and in case studies" (p. 62). CPDCs are set up for exactly such a practice of inquiry, reflection, and discussion about experiences. Thus, the educational practice in CPDCs

would need to give attention to teachers' ethical judgments as they occur in their daily practice. In addition, by bringing teachers and pre-service teachers together for on-going reflection on their teaching practice, CPDCs provide a context in which enacted moral wisdom can be wondered about, questioned, and challenged for the betterment of the discernment of all participants. It is often our routine practices that need questioning with respect to moral wisdom, and the set-up of CPDCs allows for exactly this to happen – assuming that "the norms of politeness" (Feiman-Nemser, 2001, p. 1033) are set aside for forms of critical friendship.

### *University-based teacher educators*

There is one additional set of assumptions that frame an integrated approach like CPDCs as the better approach to the education of teachers than the currently non-integrated approaches. Although "the education of teachers" generally refers to the education of *school teachers*, the literature on teacher education gives more and more attention to the preparation and education of university-based teacher educators. This is quite appropriate, since teacher educators are teachers as well, and a number of issues concerning the education of school teachers also applies to the education of teacher educators. Making the assumption that the education of teacher educators is of importance to the education of school teachers, CPDCs provide a more fitting context for the education of teacher educators than the traditionally non-integrative approaches. As Darling-Hammond points out, "Teacher educators learn more about teaching as they teach collaboratively with veteran teachers" (Darling-Hammond, 2005a, p. 12).

University-based teacher educators play an important role in the education of teachers in integrative approaches like CPDCs, particularly through

- their understanding of and skills in analyzing teaching practices (exemplary teachers are not necessarily able to articulate what makes their practice exemplary; conversely, good analysts of school teaching are not necessarily exemplary school teachers themselves);

- their understanding of the process of *learning* to teach and the education of teachers in general (exemplary school teachers are not necessarily good teacher educators; conversely good teacher educators are not necessarily good school teachers);

- their understanding of research-supported teaching practices;

- their understanding of researching and inquiring into teaching practice and education and schooling in general;

- their critical view of teaching, schooling, and education, which is easier to take for someone who is not embedded in the school system (supporting teachers as intellectuals in the field of education requires an on-going infusion of opportunities to see their views challenged and to be confronted with alternative perspectives).

This list assumes certain understandings and abilities of university-based teacher educators. These qualities cannot be assumed by default; rather, they need to be developed and sustained through on-going professional development. Thus, a systematic and maybe more formal education of teacher educators needs to be seriously considered.

## CONCLUSION

I started out describing the division of labour between faculties of education and the field in the education of teachers, the separation of the cultures developed in both, and the different perspectives that exist in both cultures about the purpose of the preparation of teachers. I then outlined an integrative approach to the pre- and in-service education of teachers through Collaborative Professional Development Centres (CPDCs) in response to the currently dominant non-integrated approaches. CPDCs overcome the division of labour in teacher education by providing an institutionalized setting for joint learning of teacher candidates, beginning teachers, experienced teachers, and members of faculties of education. They accomplish this by bringing into the context of concrete school life and teaching the theorizing about teaching, schooling, and education that is central to traditional university-based courses. In CPDCs, the professional development of practicing teachers is confronted with faculty members' theorizing and the teacher candidates' wonderings and needs; on the other hand, such theorizing is now confronted with the question of relevance and appropriateness by being confronted with the reality faced by practicing teachers and by their experiences, questions, and practices. Such institutionalized and on-going interaction between school teachers and members of the faculty of education will most likely not address the different promotion and accountability structures in the respective institutions. However, such interaction can change the ways in which faculty members on the one side and school teachers on the other are enculturated into their respective cultural contexts, because the involvement of both school teachers and faculty members in on-going and institutionalized professional learning communities in schools with specific needs of their students will have the school culture and the university culture interact with each other. Such interaction provides an opportunity to address different views of the purpose of the preparation of teachers.

Central elements of the teacher education program reform proposed in this paper link well with efforts by other Canadian scholars who envision and (re) conceptualize pre-service teacher education in Canada. The idea of overcoming the division of labour in pre-service teacher education has been, for instance, proposed by Grimmett (1998), who "call[ed] for two broad features in teacher preparation programs" (p. 257), one of which is that

> prospective teachers need to engage in classroom-based action research into dilemmas of teaching, such as investigating problematic aspects of the cur-

> riculum, attempting to understand learners' conceptions of subject matter content, examining difficult student behavior, and exploring the beliefs students [i.e., teacher candidates] bring into teaching from their prior socialization in schools and how these beliefs affect their views of teaching and learning. (p. 257)

Such research would, at least partially, be undertaken collaboratively in "a team teaching situation" (p. 261). Grimmett also proposes such action research for beginning teachers during their induction phase (Grimmett, 1998, p. 262).

Along the same line, Russell, McPherson, and Martin (2001) address what they call "the theory-practice divide" (p. 45) in Canadian pre-service teacher education programs and suggest school-university partnerships in teacher education to overcome such a divide. The authors also give consideration to the transition from being a teacher candidate to being a beginning teacher, although their concern is more with a well designed traditional mentoring program than with an integration of the different phases of the education of teachers as proposed here.

These two publications contribute to a discourse about teacher education program reform in Canada which includes a number of other publications on Canadian reform programs, like the Communities of Inquiry in Teacher Education (CITE) program at the University of British Columbia (Far Darling, Erickson, & Clarke, 2007), the soon-to-be-discontinued Master of Teaching program at the University of Calgary (Phelan, 2005), and the Mid-Town cohort program at the University of Toronto (Beck & Kosnik, 2006). What this article contributes to this line of scholarship on Canadian teacher education program reform is that it conceptualizes the education of teachers as a continuum across the different phases of becoming and being a teacher and proposes an organizational structure that allows addressing in an integrative way the learning needs of teachers along this continuum.

While this article provides a plausibility argument for CPDCs as an institutional structure for an integrated approach to the education of teachers, the structure does not give consideration to the role the university-based teacher education courses play in the education of teachers, nor does the article discuss a number of factors that need to be considered when trying to create and maintain such a structure. One such factor concerns issues of teacher education governance: who decides on resources, staffing, etc. (see, for instance, Falkenberg & Young, 2010).

If the plausibility argument outlined in this article is convincing, a CPDC should be considered a very suitable institutional structure for teacher education and teacher professional development in Canada and a better alternative to the currently non-integrated approach to the education of teachers.

## NOTES

1. For a historical perspective on the development of and work in partner schools see Goodlad (1993, 1999).
2. Ravid and Handler (2001) provide an overview of different models of school-university collaboration, of which the PDS is one model.
3. Different scholars have pointed out that the education of teachers begins even earlier than that, recognizing the contributions of the personal life story of teachers outside of their schooling (see, for instance, the review in Richardson, 1996, p. 105; see also Clandinin, personal communication, 1 November 2007, reported in Falkenberg, 2008, p. 15). In this article, I subsume all those contributions into the first phase of the continuum of the education of teachers.
4. Feiman-Nemser (Feiman-Nemser, 2001; Feiman-Nemser & Remillard, 1996) criticizes the last phase of this phase view, because it does not consider that many teachers continue learning about teaching. She suggests that in this phase the trajectory becomes more idiosyncratic, depending on personal dispositions, educational opportunities, and so on.
5. In some Canadian jurisdictions the term "school district" is used rather than "school division."

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