

Developing Teachers' Professional Learning: Canadian Evidence and Experiences in a World of Educational Improvement

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Abstract

This article discusses the current international emphasis on educational improvement and, particularly, approaches to developing teachers' professional learning. I begin by arguing for the importance of Canadian narratives and evidence within global debates. I turn then to an example of a recently conducted study of the state of educators' professional learning in Canada to examine research-informed principles and examples from policies and practices across Canada. I conclude by arguing for the importance of the Canadian education community learning with, from, and for Canada, appreciating that diversity is our strength, but recognizing that inequities are our greatest challenge.

Keywords: professional learning, professional development, teachers, leadership, Canada

Résumé

Dans cet article, il est question de la priorité qui est actuellement accordée à l'échelle internationale à l'amélioration de l'enseignement et notamment aux approches axées sur l'apprentissage professionnel des enseignants. L'auteure commence par faire valoir l'importance des données probantes et des témoignages canadiens dans les débats internationaux. À l'aide de l'exemple d'une étude récente sur la situation de l'apprentissage professionnel des éducateurs au Canada, l'article examine des principes fondés sur des recherches ainsi que des exemples de politiques et de pratiques en place un peu partout au Canada. L'auteure conclut en affirmant qu'il est important que l'apprentissage de la communauté de l'enseignement canadienne se fasse avec et pour le Canada et à partir d'ici et souligne que si la diversité est notre force, les inégalités demeurent notre plus grand défi.

Mots-clés : apprentissage professionnel, perfectionnement professionnel, enseignants, leadership, Canada

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Introduction

This article discusses and examines research, policies, and practices to support the professional learning and development of teachers. Linked to the *Canadian Journal of Education*'s important 40th anniversary, my intent is to provide an article to provoke and stimulate dialogue within the Canadian education community (and beyond) through providing research-generated insights and suggestions. I begin by discussing international debates concerning educational improvement and the manner in which Canada is profiled in international assessments and comparisons. I argue for the importance of research in and from Canada to be conducted and profiled to contribute to a narrative and evidence about Canadian education and the diverse communities and contexts within Canada. Using the example of a recently conducted study of the *State of Educators' Professional Learning in Canada* (Campbell et al., 2016), I discuss findings concerning teachers' professional learning. Drawing on the experiences from that study, I conclude by arguing for the importance of learning from, with, and for Canada, that diversity is our strength, but inequities are our greatest challenge.

A World of Educational Improvement

The existence and persistence of inequities in educational experiences within schooling and in outcomes for students is a long-standing concern with considerable attention in Canada and globally. The rising use and profile of national and international assessments, debates about international benchmarking (Schleicher, 2009), and research on the educational strategies, practices, and outcomes in different national contexts (e.g., Barber & Mourshed, 2007; Darling-Hammond, 2010; Fullan, 2010; Hargreaves & Shirley, 2012; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Mourshed, Chijioke, & Barber, 2010) have contributed to rising interest in the content and processes of "Whole System" educational change at national and/or state/provincial levels, as well as educational improvement within and across districts and schools (Fullan, 2000). The quest of whole system educational improvement is to support all students to learn, all teachers to teach, all education leaders to lead, and all schools (and systems) to improve (Campbell, 2015).

There is considerable debate and critique about the purposes, approaches, and outcomes of policy approaches to transform education systems within and across countries

(Sahlberg, 2011, 2016; Hargreaves & Shirley, 2009, 2012). One of the main areas of attention and contention is policy and practice concerning the development and work of school teachers. The phrase “the quality of an education system cannot exceed the quality of its teachers” (Barber & Mourshed, 2007, p. 16) promoted by reports from the Programme for International Student Assessment (PISA) (Organisation for Economic Co-operation and Development [OECD], 2010) has become widely used by policy makers. As Hargreaves and Fullan (2012) propose: “Teaching is at a crossroads: a crossroads at the top of the world. Never before have teachers, teaching, and the future of teaching had such an elevated importance” (p. xii). Nevertheless, while the development and valuing of teachers is paramount in educational improvement, based on our research of teacher learning and leadership in Ontario, Lieberman, Yashkina, and I have argued:

...the emphasis on teachers at the center of educational improvement has proven to be a mixed blessing with divergent views on whether teachers should be the subjects of external changes—for example, with the imposition of teacher performance measurement and evaluations—or the agents of change with opportunities for teachers themselves to develop and exercise their collective professional judgement. (Lieberman, Campbell, & Yashkina, 2017, p. 11)

In this wider context of international assessments, research, and debate, Canada's education systems in general (and/or with reference to specific provinces) have been profiled, researched, and critiqued. For example, all 10 provinces participated in each PISA assessment (OECD, 2013a), but not the territories. The fact that, overall, Canada performs relatively highly in international assessments and with lower impact of socio-economic status on educational outcomes has generated international interest. In the latest round of PISA assessments, for example, Canada was the highest scoring OECD country in reading and second in the world, behind Singapore and equal to Hong Kong (OECD, 2016). With respect to teachers' professional learning specifically, Alberta is the only province to participate in the Teaching and Learning International Assessment Survey (TALIS) (OECD, 2013b). Individual provinces, particularly Alberta (Zeichner, Hollar, & Pisari, 2017), British Columbia (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016), and Ontario (Campbell, Osmond-Johnson, Sohn, & Lieberman, 2017; Pervin & Campbell, 2015), have also been profiled in international studies of teachers' development and professional learning. While international recognition of the positive aspects of education

within Canada is encouraging, the challenge for Canadian educators and researchers is that this global narrative is largely being created, communicated, and interpreted by international agencies, such as the OECD, outside of Canada, yet with considerable influence currently for educational policies and practices being developed and adapted within Canada. Furthermore, in the case of teachers' professional learning, what is reported as "Canada" in TALIS is based on one province only.

There is no one "Canadian" approach to education; although, as a country overall, Canadians value the importance of education and wider social, economic, and cultural policies to support the development of the people in Canada (Osmond-Johnson, Campbell, & Zeichner, 2017). However, rather than select provinces within Canada being used as exemplars of educational improvement globally, we need to also recognize and research the unique features of education in Canada, specifically including the important diversity of experiences within and across local communities, territories, and provinces. I recently led a research project that attempted to study one aspect of educational improvement—teachers' professional learning—within and across Canada.

The State of Educators' Professional Learning in Canada Study

While there have been studies of Canadian educators' professional learning as part of wider research on working conditions and workplace learning (e.g., Smaller et al., 2005), studies of the experiences of particular subgroups of educators (e.g., Clark et al., 2007), surveys including items related to teachers' professional learning within a wider survey of teachers (e.g., CTF, 2014, 2015) or assessments (CMEC, 2015), and research on particular forms of professional learning (e.g., Kamanzi, Riopel, & Lessard, 2007) or pan-Canadian scans and reviews (Bellini, 2014), overall, there is limited research concerning teachers' professional learning *across* Canada. There is, of course, important research on particular forms of professional learning within particular contexts in Canada's provinces and territories. Indeed, there is "no one size fits all" approach to professional learning in Canada and nor should there be. However, considering issues of access to quality professional learning opportunities and experiences within and across the diversity of Canada is an important educational research concern.

The *State of Educators' Professional Learning in Canada* study (Campbell et al., 2016) sought to investigate the overarching research question: "What is the current state of educators' professional learning in Canada?" The study employed a multimethod design. First, we conducted an extensive review of publicly available documents, including policy documents, collective agreements involving teachers' organizations, and frameworks for professional learning (where available) for all 10 provinces and three territories. In addition, we reviewed research reports and survey analyses from the Canadian Teachers' Federation (CTF) and their jurisdictional counterparts. We reviewed relevant pan-Canadian information from the Council of Ministers of Education, Canada (CMEC), plus international analyses and comparisons of professional development through the OECD's TALIS and PISA. A review of the academic research literature was also completed. In light of limitations on the extent of publicly available data concerning teachers' professional learning across Canada, we decided also to contact individuals in each province and territory to seek their advice and access to other documents and data that may exist. Through the CTF, we held two focus group conference calls with representatives from teachers' organizations in Canada's provinces and territories. We also formed an Advisory Group with membership from each province and territory as well as relevant national organizations; the Advisory Group was requested to send relevant research, data, documents, and examples of promising practices. In addition, the New Brunswick Teachers' Association (NBTA) offered us the opportunity to add survey items to their NBTA Council Day survey; we received responses from 741 survey participants. The Manitoba Teachers' Society (MTS) also offered us the opportunity to gather original fieldwork during an MTS conference, involving their Professional Development Chairs; we conducted four focus groups in person, including 41 MTS Professional Development Chairs. We also held a focus group with Learning Forward Manitoba and their invited participants. In addition, three in-depth case studies were conducted to gain deeper insights into the specific professional learning experiences of educators in Alberta (Osmond-Johnson, Zeichner, & Campbell, 2017), British Columbia (Brown, Hales, Kuehn, & Steffensen, 2017), and Ontario (Campbell, Osmond-Johnson, Sohn, & DaCosta, forthcoming). In each case study, a review of available documents and data was conducted, plus interviews and focus groups with teachers, school leaders, district leaders, provincial professional organizations, government officials, professional development providers, and other individuals/organizations as appropriate to each province.

The purpose of our study was not to argue for a national education strategy or a uniform approach across Canada. Rather, it was the opposite; the purpose was to learn with and from the range of different experiences and evidence within Canada. However, there are methodological limitations to the availability of evidence and to its analyses: there are few pan-Canadian research studies or data; in most cases, studies, surveys, and other data are conducted within individual provinces, at different times, using different questions, items, or definitions of professional development, and for diverse audiences and reporting purposes. It is not feasible to generalize across Canada. Nevertheless, across our research, we found examples of policies and practices in educators' professional learning in Canada that are consistent with 10 key principles that we have identified from the existing research literature (see Table 1). I summarize our findings for each principle below.

Table 1. Key research-informed components and principles of effective professional learning

Key Components	Principles and Practices for Effective Professional Learning
Quality Content	Evidence-informed
	Subject-specific and pedagogical content knowledge
	A focus on student outcomes
	A balance of teacher voice and system coherence
Learning Design and Implementation	Active and variable learning
	Collaborative learning experiences
	Job-embedded learning
Support and Sustainability	Ongoing in duration
	Resources
	Supportive and engaged leadership

Source: Campbell et al. (2016)

Quality Content

It may seem obvious, but quality content matters in effective professional learning.

Evidence-informed. I use the term “evidence-informed” to indicate the use and adaptation of empirical evidence from research, evaluation, and data, plus the importance of professional knowledge, expertise, and judgement (Campbell, 2016; Hargreaves & Fullan, 2012). Examples of evidence-informed approaches to professional learning can be seen at all levels of the education system in Canada. Provincial Ministries/Departments of Education and professional organizations have engaged in reviews of professional learning research and needs analyses to inform their approaches to professional development. For example, following an in-depth review of professional learning in the province, the government in Prince Edward Island released *The Professional Learning Report* (Prince Edward Island Department of Education and Early Childhood Development, 2013) outlining a renewed vision for professional learning rooted in seven principals of effective professional learning (see Figure 1). As well as frameworks and policies, evidence is proposed to be used for planning professional development priorities, processes, and content, for example, as outlined in Alberta’s professional development planning cycle (see Figure 2). Across our case studies, we identified examples of provinces, school districts, and schools engaging in processes of needs assessments, analysis of students’ work and learning, identification of professional needs, and engaging in and with research and inquiry to inform their professional learning priorities. Professional development in Canada appears to be evidence-informed but not data-driven; that is to say, a range of voices, experiences, needs, and context inform a diversity and differentiation of content (and also types of delivery, as will be discussed in the next section). Our main finding was that evidence, inquiry, and professional judgement are informing professional learning policies and practices (Campbell et al., 2016, p. 3).



Figure 1. Effective Professional Learning (PEI Department of Education and Early Childhood Development 2013, p. 56)

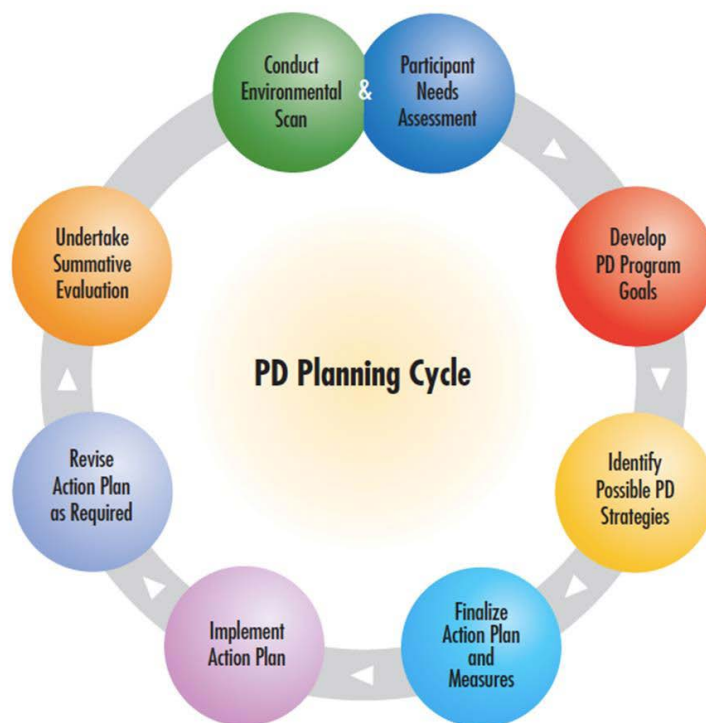


Figure 2. Alberta's Professional Development Planning Cycle (Education Partners, 2016)

Subject-specific and pedagogical content knowledge. Over 30 years ago, Shulman (1986) identified the importance of subject matter knowledge, pedagogical content knowledge, and curricular knowledge in supporting a novice learner to become an expert teacher. The same concerns about ensuring a combination of subject and pedagogical knowledge persist for the current continuing professional learning of teachers (Dagen & Bean, 2014; Desimone, 2009; Desimone & Stuckey, 2014; Evans, 2014; Garet, Porter, Desimone, Birman, & Yoon, 2001; Merriman, 2014). Furthermore, in recognition of the increasing complexity of students' needs, of competencies and skills required presently, and new technologies, the need for "deep learning for new pedagogies" has been proposed (Fullan & Langworthy, 2013).

Looking across several surveys of teachers and research concerning professional development in Canada, subject and pedagogical knowledge continues to be a priority. In British Columbia, for example, the introduction of major curriculum reform is requiring that more attention be paid to supporting teachers' curricular and pedagogical knowledge. In particular, the introduction of coding and "computational thinking" is requiring considerable attention to how to support professional learning and development. Hence, professional learning needs are influenced by policy changes and contexts. They are also affected by wider shifts in social, economic, and technological developments. For example, as illustrated in Table 2, concerns about supporting all learners, an appreciation of diversity, and addressing inequities are priority areas identified as professional learning needs (see also White, 2013). A recent CTF survey highlighted also the importance of, and need for, appropriate professional learning to support teachers' knowledge and understanding of Aboriginal people (CTF, 2015); this priority is further required to support implementation of the recommendations of the Truth and Reconciliation Commission of Canada (Truth and Reconciliation Commission of Canada, 2015). Therefore, alongside the need for subject-specific and curricular pedagogical knowledge, important priorities for teachers' professional learning in Canada include understanding, teaching, and supporting diverse students, as well as addressing inequities and engaging in complex learning for changing social, demographic, economic, political, and technological contexts. Overall, our main finding was that the priority area identified by teachers for developing their knowledge and practices was how to support diverse learners' needs (Campbell et al., 2016, p. 3).

Table 2. Perceived priority professional development needs

Jurisdiction	Perceived Priority Professional Development Needs	Source
New Brunswick	<ul style="list-style-type: none"> Supporting diverse learning needs Subject matter content Instructional method 	New Brunswick Teachers' Association, Council Day Evaluation (2016, pp. 73–74)
Alberta	<ul style="list-style-type: none"> Working with all students in an inclusive environment Differentiating instruction Teaching cross-curricular competencies 	Alberta Teachers' Association (ATA) (2015, p. 23)
Alberta	<ul style="list-style-type: none"> Share curriculum ideas and best practices Co-create and share learning and teaching resources Learn new teaching strategies 	Beauchamp, Klassen, Parsons, Durksen, & Taylor (2014, p. 10)
British Columbia	<ul style="list-style-type: none"> Strategies or materials (<5 yrs of teaching) Philosophical issues, social issues (e.g., poverty), engaging in positive health and wellness (<5 yrs of teaching) 	Naylor (2010, p. 10)
Ontario	<ul style="list-style-type: none"> Equity and poverty education Assessment and math instruction 	Bodkin, Broad, & Molitor (2013, p. 25)
Pan-Canadian	<ul style="list-style-type: none"> Professional development to support curriculum implementation Professional development opportunities related to technology 	Canadian Teachers' Federation (2014, pp. 5–7)

Source: Adapted from Campbell et al. (2016)

A focus on student outcomes. Timperley (2008), the Centre for the Use of Research Evidence in Education's (CUREE) (2012), and Cordingley et al.'s (2015) syntheses of evidence concerning effective teacher professional learning identified the importance of content that is focused on student outcomes. In our survey items for the NBTA, we asked teachers to identify their priority professional needs linked to our 10

principles of effective professional learning (previously outlined in Table 1): the majority of respondents (56%) selected a *focus on student outcomes* as the top need and priority. However, while student achievement and outcomes are important, these should not be interpreted narrowly or conceived as exclusively or primarily test scores. Effective professional learning supports and improves a broad range of outcomes for students and for professionals. For example, teachers engaged in the Program for Quality Teaching (PQT) research and inquiry projects in BC (British Columbia Teachers' Federation, 2016) focused on a range of approaches to improve students' learning, engagement, and academic achievement, as well as teachers' professional development (see also Naylor & Hinds, 2010). A focus on student-centred outcomes that includes a broad understanding of student achievement in addition to equity, engagement, learning, well-being, and many other outcomes, with recognition of the diversity of students' contexts and needs and linked professional needs, is important. Furthermore, the content of quality professional learning also needs to consider outcomes for professionals' own learning too.

A balance of teacher voice and system coherence. The appropriate balance between teachers' voices and choices for their professional learning, combined with system coherence through system, district, and/or school required professional development, is complex (Darling-Hammond et al., 2009; Hargreaves & Fullan, 2012; Timperley, Wilson, Barrar, & Fung, 2007). In our research, this balance was contentious and appeared to vary between provinces and, indeed, between the responses from individual teachers and their organizations and the individuals and organizations in district or provincial leadership roles. In the NBTA (2016) survey, 36% of respondents indicated that their autonomy had decreased over time; whereas 34% indicated that their autonomy had increased. Surveys in Alberta (ATA, 2015) and BC (Naylor, 2010) suggest that a majority of teachers consider their professional judgement to be recognized (58% in ATA, 2015) and to have some autonomy over professional development choices (62% in Naylor, 2010). Overall, a national survey by CTF (2014) indicated that teacher autonomy existed, to some extent, over selecting professional development, but this was perceived to have eroded over time. In practice, teachers mainly appear to be engaged in both system-directed and teacher-led professional development; for example, in Saskatchewan (Saskatchewan Teachers' Federation, 2013), 95% of teachers reported participating in employer-directed professional development during the last year, and 80% reported participating in teacher-led professional

development. Issues of, and concerns about, teachers' voices, choices, autonomy, and judgement (particularly contrasted with system-decided and/or district- or school-directed professional development) were present throughout our research. Who decides the necessary content and methods for teachers' professional learning is a point of contention.

Learning Design and Implementation

Relatedly, our research indicates a wide range of types of learning design and implementation approaches for professional learning within Canada.

Active and variable learning. A wide array of professional development activities exist (OECD, 2014). Like their students, teachers need access to multiple and varied opportunities to learn new content, gain insights, and apply new understandings to their daily practices (Timperley, 2008). The available evidence suggests that, overall, Canadian teachers are actively participating in a variety of professional learning opportunities. Drawing from TALIS, junior high school teachers in Alberta report one of the highest participation rates (98%) in professional development internationally (compared with the TALIS average for junior high school teachers of 88%), especially for courses and workshops (85% averaging 6 days of participation for Alberta, compared to TALIS average of 71% and 8 days), education conferences or seminars (74% averaging 3 days of participation, compared to TALIS average of 44% and 4 days), participating in networks of teachers (63%, compared to TALIS average of 37%), individual or collaborative research (49%), and in-service training in outside organizations (21%) (OECD, 2013b, p. 3). Perhaps surprisingly, across the studies we reviewed, two main forms of professional development were identified as most dominant—workshops and collaborative learning—both in individual provinces (for example, Alberta, see ATA, 2015; New Brunswick, see NBTA, 2016; Ontario, see Bodkin et al., 2013) and in a pan-Canadian study (Smaller et al., 2005).

A central theme in our research findings was that there should be “no one size fits all” approach to professional development (Campbell et al., 2016, p. 8); rather, there is a need for a wide array and repertoire of professional learning opportunities to meet a variety of needs, experiences, interests, contexts, and career stages. The theme of differentiation for professional and personal learning needs is important; for example, the

Elementary Teachers' Federation of Ontario (ETFO) allocates six percent of their budget for women-only programs, including Reflections on Practice, which supports women to engage in-depth with inquiry on problems of practice. Differentiation can also relate to career stage, for example, opportunities for induction and mentoring for early career teachers through to teacher leadership for experienced teachers.

Collaborative learning experiences. The importance of collaboration between and among education professionals within and across classrooms, schools, districts, and systems is widely supported in research literature concerning effective professional learning (e.g., Darling-Hammond et al., 2009), although it is recognized that aspirations for the social capital of educators collaborating purposefully and productively is not always fully realised (Hargreaves & Fullan, 2012). In our research, collaborative learning experiences were valued. For instance, in a recent survey on professional development and self-efficacy conducted for the ATA, 80% of respondents reported their best professional learning was “collaboration with colleagues” (Beauchamp et al., 2014). Moves toward increased professional collaboration are evident; for example, Departments/Ministries of Education in Newfoundland and Labrador (Professional Learning Newfoundland and Labrador, 2015), Nova Scotia (Nova Scotia Department of Education and Early Childhood Development, 2013), and Prince Edward Island (Prince Edward Island Department of Education and Early Childhood Development, 2013) have emphasized the importance of collaboration for school improvement and professional development. Nevertheless, there is a concern about the lack of support for collaborative professional learning. For example, despite the emphasis on school-based professional learning communities, 20% of teachers in Alberta (ATA, 2015) reported that there was no official time for professional learning communities during their school day.

Collaboration within schools can include teams of professionals, for example, in Ontario, the Ministry of Education invited school districts to select a team of educators—ideally including teachers from relevant grades, a principal, an early years curriculum leader or consultant, and a supervisory officer—to engage in the Early Primary Collaborative Inquiry (EPCI), initially focused on Kindergarten and Grade 1 and then extending to Grade 2. Responses to a survey of educators involved indicated that particularly powerful aspects of EPCI were the opportunities to engage in collaborative professional learning and reflective practice (90% reported impact of a moderate or large extent), to

document and study student learning (90% of educator respondents), and to collaborate with colleagues to explore questions related to students' learning (88% of educator respondents) (Kane et al., 2013).

Collaborative professional learning opportunities can support teachers to learn across schools. For example, in Alberta, Edmonton Public West 6's network has brought together schools and teachers facing similar issues regarding poverty, transience, and English as a Second Language (ESL) learners. Engaging in teachers' organizations' professional learning events can also support wider networking for teachers, as one interviewee commented:

...we believe in promoting networking. We did a survey of, I think it was, about 1,000 members last summer about our programs and one of the main things that kept coming up over and over again in the qualitative feedback was the idea of how they loved the networking so much and many of them talked about how it's very insular in their school or in their board and they loved the fact that they were at events with teachers from all across the province, so they could hear different perspectives, different interpretations and that that was a really big deal for them. (Interviewee, teachers' federation, Ontario)

Collaboration with universities and community groups, alongside educators from districts and schools, can support inquiry into new practices to engage teachers' practices, students' success, and enhanced school, family, and community connections, as demonstrated by the *Growing Innovation in Rural Sites of Learning* partnership between the University of British Columbia and the BC Ministry of Education (Giles, 2016). Expanding further, the Alberta Teachers' Association is engaged in two international partnerships to enable schools to connect, including principals, teachers, and students: NorCan (Norway, Alberta, and Ontario) and FinAl (Finland and Alberta). Overall, our findings indicated that collaborative learning experiences were highly valued and prevalent (Campbell et al., 2016, p. 3).

Job-embedded professional learning. The importance of professional learning that is directly connected to teachers' working contexts and problems of practice has been identified (Croft, Coggshall, Dolan, Powers, & Killion, 2010). Sometimes such learning is considered to be directly "embedded" within school-based professional learning,

which Opfer (2016) defines as including professional development networks, undertaking collaborative research on problems of practices, peer observation, and coaching. A key element is that professional learning is practical and relevant to teachers' needs; indeed, in focus groups conducted with a total of 79 participants for our BC case study (Brown, Hales, Kuehn, & Steffensen, 2017), "relevant" was the second most important factor (time was first, a point elaborated on below).

Induction and mentorship can be powerful job-embedded professional learning experiences. A pan-Canadian analysis by Kutsyruba, Godden, and Tregunna (2013) identified that "support in the form of either induction based programs and policies and/or mentoring related support exists in all Canadian provinces" (p. 48). However, practice is highly variable. Only Ontario and the Northwest Territories require new teachers to participate in a formal induction program, and the Yukon requires teachers to complete 50 hours of professional learning to receive their permanent teaching certificate. Our research on Ontario's New Teacher Induction Program (NTIP) for the State of Educators' Professional Learning in Canada study (Campbell et al., 2016) indicated benefits for the professional, practical, and emotional development of new teachers and also growth and learning for the mentors involved. Of concern, therefore, is that 71% of teachers responding to Kamanzi, Riopel, and Lessard's (2007) survey of teachers across Canada had not been offered any mentoring activities. Variations exist within provinces: for example, local inconsistencies in availability of mentorship contributed to the development of the New Teacher Mentorship Project (NTMP) in BC, in partnership between BCTF, University of British Columbia, and the British Columbia School Superintendents Association.

While a substantial majority of professional learning is becoming school-based, for example, 85% of teachers reported participating in this form of professional development in BC (Naylor, 2010); there are concerns that job-embedded professional learning should not be conflated with "school-based" only. Indeed, in the BCTF survey, 68% of teachers also reported engaging in self-directed professional learning (Naylor, 2010). Opportunities for teachers to get out of their own school and to expand their professional networks, learn new ideas, see new practices, access new resources (through conferences, workshops, institutes, or participating in professional organizations), complete graduate studies or other qualifications, and participate in online networking were all important and valued professional learning experiences. Professional development can be "embedded" in someone's work without being physically located within someone's

workplace; rather, the importance is new learning and co-learning that has the potential to be embedded in the professional's needs and can contribute to changes in their knowledge, skills, and practices.

Support and Sustainability

Finally, attention to providing support and sustainability for effective professional learning is required from the outset of design and implementation approaches.

Ongoing in duration. Effective professional learning that changes thinking, knowledge, and practices requires considerable time (Cordingley et al., 2015; CUREE, 2012; Darling-Hammond et al., 2009; Timperley, 2008). In general, teachers across Canada are engaging in professional learning—research from New Brunswick (NBTA, 2016), Ontario (Directions Evidence and Policy Research Group, 2014; Leithwood, 2006; OECTA, 2006), Prince Edward Island (Macdonald, Wiebe, Goslin, Doiron, & MacDonald, 2010), and Saskatchewan (Joint Committee on Student and Teacher Time, 2015; Saskatchewan Teachers' Federation, 2013) indicates teachers spend an average of one to three hours on professional learning during the work week. What is less clear is how much of this is actually sustained professional learning contrasted with a variety of activities. Generally, the longest specific professional development program we reviewed was 12 to 18 months in duration, although there were some longer-term exceptions. These longer approaches generally involved forms of teacher inquiry combined with external support; for example, the three-year Changing Results for Young Readers (CR4YR) initiatives in BC, where teachers in 57 participating districts met with a facilitator seven times each year to explore inquiry questions they chose to help support engaged, successful readers. Most specific professional development is shorter in duration, sometimes it is a one-day or part-of-a-day event, sometimes it is a sequence over a specific time period. Overall, our findings indicated that time for sustained, cumulative professional learning integrated within teachers' work lives requires attention (Campbell et al., 2016, p. 10).

Resources. It is vital to adequately resource high-quality professional learning (Cordingley et al., 2015; Odden & Picus, 2014; Timperley et al., 2007; Timperley, 2008). In the NBTA (2016) survey conducted for our study, the top three obstacles to

participating in professional development were increased workload (81% of respondents), inconvenient timing (54% of respondents), and costs/financial reasons (53% of respondents). Teachers (and school and system leaders) are engaging in professional learning during their personal time—on evenings, weekends, and holidays—often to compensate for lack of time during the work week. There were creative approaches to making time for professional learning in some schools and districts: In Alberta, the school leadership team in Jasper Place High School changed their approaches to school scheduling in order to create Alternative Learning Days for teachers and students. In Fort McMurray public schools, changes were made to the school calendar to create 14 professional development days (five district-based and nine school-based). However, creating time for professional development needs to include attention to what other workload demands are going to be reduced or removed. Across our case studies, issues of workload and work intensification were reported for educators (see also ATA, 2012, 2015; MTS, 2010).

Closely connected to time, a further major challenge identified was funding. Across our case study provinces, governments were providing funding for professional learning, however, the levels of funding could fluctuate with changing economic and political circumstances—a prime example being the government's decision to stop the funding of the Alberta Initiative for School Improvement (AISI). While time and funding are aspects of collective agreements, these vary widely between and within provinces; for example, the inequities in access to professional development funds between districts and local associations was a priority theme in our Manitoba focus group interviews. Across our research, the level of local professional development funds available to individual teachers varied from less than \$100 to over \$2,500. A major finding was that there were highly inequitable variations in access to resources for teachers' professional learning; teachers in rural areas and teachers without a permanent contract were particularly negatively affected. Clearly, funding for the provision of professional development matters. For example, when the Ontario Ministry of Education subsidized Additional Qualifications (AQ) in Mathematics to be provided by the teachers' federations, 96% of participants indicated that the subsidy influenced their decision to take the AQ (Yashkina, 2016).

Supportive and engaged leadership. If a professional learning culture is to be sustained, school and system leaders must be actively engaged in encouraging, supporting, and engendering this climate of shared learning and experimentation in the larger

educational context (Bangs & Frost, 2012; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Robinson, Hohepa, & Lloyd, 2009). It is clear that the governments and Ministries/Departments of Education play a key role in developing (or not) enabling conditions for professional learning. In our case studies, government reforms of educational vision statements, curriculum, teaching policies, leadership frameworks, education strategies, and related initiatives, all affected the context for, and content, of professional development. Professional associations, including teachers' organizations, play an important leadership role in promoting and supporting teaching as a learning profession. Teachers in our case studies appreciated when school, district, and provincial leaders supported their professional learning, took an interest in what they were learning, and celebrated their work. At the same time, the ways formal leaders chose to support professional learning varied, and there were some tensions in conceptualization and practice. Concepts of distributed leadership were sometimes referenced to suggest an inclusive learning culture that is engaging for all, for example, in the new focus on collaborative professionalism in Ontario (Ontario Ministry of Education, 2016). Nevertheless, the tension between who controls the direction and detail of professional learning was evident in our research. Supportive and engaged leadership could be interpreted as formal leaders championing and co-learning with their staff, with positive intent and outcomes. However, for some teachers, formal leaders' attempts in provinces, districts, and/or schools to create coherence and coordination could be perceived as controlling and undermining teachers' own professional judgement. Furthermore, formal leaders in schools and districts also require support, time, and resources for their own professional learning. Issues of time, workload, and work intensification are apparent for school and district leaders also. The goals of instructional leadership, where school leaders engage in and support teachers' professional learning, can be challenging to achieve, when principals' days are consumed with operational matters (Pollock, Wang, & Hauseman, 2014).

Canadian Evidence and Experiences in a World of Educational Improvement: Concluding Comments

Reflecting on our recently conducted State of Educators' Professional Learning in Canada study (Campbell et al., 2016), I conclude by drawing out three larger conclusions for the educational research community in Canada.

First is the importance of learning from, with, and for Canada. Given the rich diversity of contexts, experiences, and needs within Canada, conducting research that is specific to particular locales, communities, and populations is vital and important. At the same time, debates about educational change have become “bigger” (Hargreaves et al., 2010, p. xii), with increasing attention paid to educational improvement and outcomes on a large scale to address “hard questions of global educational change” (Sahlberg, Hassak, & Rodriguez, 2016). In this context, I propose that it is important that the education community within (and beyond) Canada continue to seek to learn from Canada by further developing pan-Canadian communities, debates, dialogues, and research. We have attempted to look across Canada in our study; however, in the context of a one-year project, it is simply not feasible to do justice to the full range of diverse experiences, voices, evidence, and needs. Therefore, it is important that we also learn with each other within and across Canada. For our study, we formed an Advisory Group with members drawn from each province and territory, plus relevant national organizations. Forming the Advisory Group was complex—who to select, how to select, how to address multiple and divergent views and advice. It is vital for us to engage in debate, disagreement, and dissent, as well as identifying our shared purposes, values, and contributions. It is also important to find ways to engage with and listen to communities who are under-represented or under-served. Consistent with the aims and purposes of the Canadian Journal of Education, I fully support the journal and our research communities in furthering an agenda to substantively learn from Canada and with all engaged in and with education in Canada, with the goals of contributing to educational improvement for Canada as well as contributing to global debates and evidence.

My second concluding comment is that diversity is our strength. With respect to our study findings, we concluded that professional learning is a mosaic of diverse experiences, opportunities, activities, and outcomes in Canada. Canada is a highly diverse

country—our students and communities are diverse and have changing needs in a local, national, and global context, and our educators require a repertoire of professional knowledge, skills, and practices to be developed through a wide range of differentiated professional learning experiences throughout their careers. There is not, nor should there be, a “one size fits all” approach to education in Canada. This variation is appropriate, professional, beneficial, and positive. Similarly, I would urge the educational research community to continue to value diversity, not just in our research topics and findings, but also in the epistemologies, stances, and methodologies that we bring to our work and contributions. In a global context of increasingly limited funding for particular forms of research and a narrowing selection of which people/organizations are to be supported, what questions will be investigated, and which methods will be used, we must be vigilant in Canada to support and advocate for a rich diversity of opportunities, voices, experiences, and contributions.

At the same time, my third and final conclusion is that inequities are our greatest challenge. While variations and differentiation can be appropriate, in our study of professional learning, we identified considerable inequities of access, experiences, and/or outcomes for educators' professional learning (and for the students they serve). Across our research, we found variations in access, available time, and funding for professional learning opportunities between and among provinces and territories, districts, professional associations, local units of associations, geographical communities, anglophone and francophone systems, career stage or subgroups within the education professions, schools, and communities. We heard of teachers who did not have access to dedicated professional development funding and/or had not had opportunities to engage in professional learning outside their school, sometimes for many years. In contrast, we heard of teachers who had applied for and received professional development funding (sometimes in the thousands of dollars) and were highly connected and active in professional networks and learning opportunities. Sometimes this involvement even extended to international visits and conferences. Some of this may be accounted for by individual motivation and proactivity, but not all. We heard of inequities in access with greater opportunities to engage in external professional development in urban areas contrasted with rural areas. Teachers who are not in full-time positions also require access to quality professional learning—often these teachers are not directly involved in provincial training, so the role

of teachers' organizations becomes particularly important. Teachers at different stages of their career and life also require equitable access to quality professional learning, whether as a beginning teacher, an experienced teacher, or transitioning into formal leadership and beyond. Access to high-quality professional learning experiences and resources—for example, mentorship or research-informed professional learning materials—varied considerably within and across the research we conducted. This type of variation is not inevitable, not desirable, and highly negative. Connecting to the larger question of Canadian education in a world of educational improvement, we have much to be proud of, but we have persisting and emerging inequities to identify, understand, and address. Research has a vital role in holding up the mirror, whether through qualitative and/or quantitative methods, to provide evidence and understanding of inequities for students, educators, and communities, and in seeking to inform policy and practice solutions in Canada and in a world of educational improvement.

Appendix: List of Acronyms

Alberta Initiative for School Improvement (AISi)
British Columbia Teachers' Federation (BCTF)
Council of Ministers of Education, Canada (CMEC)
Canadian Teachers' Federation (CTF)
Centre for the Use of Research Evidence in Education (CUREE)
Changing Results for Young Readers (CR4YR)
Early Primary Collaborative Inquiry (EPCI)
Elementary Teachers' Federation of Ontario (ETFO)
Manitoba Teachers' Society (MTS)
New Brunswick Teachers' Association (NBTA)
New Teacher Induction Program (NTIP)
New Teacher Mentorship Project (NTMP)
Ontario English Catholic Teachers' Association (OECTA)
Organisation for Economic Cooperation and Development (OECD)
Program for Quality Teaching (PQT)
Programme for International Student Assessment (PISA)
School Specific Learning (SSL)
Teaching and Learning International Assessment Survey (TALIS)

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