

Best Practices in Aboriginal Education: A Literature Review and Analysis for Policy Directions

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The views expressed in this document are those of the author and should not be attributed to Indian and Northern Affairs Canada.

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Overview

This literature review was undertaken in the period of January to March 2009 at the request of the Federal Interlocutor's Office to examine best practices in the provision of educational services to Aboriginal students (K-12) on and off-reserve and the implications for policy. The report begins by providing a context for this information through a brief summary of Canada's indigenous populations, Aboriginal education delivery structures and recent initiatives in various jurisdictions across Canada, and three comparative international systems - New Zealand, Australia and Norway. The main section of the report draws on over 300 sources of pertinent and current research literature to summarize best practice evidence related to the delivery of language and literacy instruction, culturally-based programming, student engagement and retention, home and community partnerships, instruction, teacher preparation and support, school leadership and programming, assessment and monitoring, and governance. The final section of the report discusses the central findings for each area in terms of their implications for policy, considers lessons that may be gleaned from the international comparators, and identifies a set of policies holding promise for accelerating large-scale progress in Canada, concluding with a blueprint for research to further understandings of best practice in Aboriginal education.

I. Introduction

Research addressing school achievement for Canada's Aboriginal students is still an emerging field. The research that exists is scattered, uneven in rigour, largely qualitative, and often small in scale. Its applicability is compromised by the vast range of contexts in which educational services are delivered. The capacity for collecting data varies widely across jurisdictions, limiting reliable evidence at the national or even provincial level. Nonetheless, the present overwhelming consensus on the part of all stakeholders on the need to improve outcomes for Aboriginal learners demands renewed efforts to synthesize and learn from the research base.

Purpose and Scope

The purpose of this review is to summarize what is known about effective practices in Aboriginal schooling. This best evidence synthesis is intended to contribute to the development of a more rigorous basis for policy and practice in Canada in order to optimize outcomes for Aboriginal learners.

Its focus is limited to Pre-K to 12 education, both on and off-reserve. Drawing on findings from Canada and abroad, this report identifies a set of strategies and effective practices which appear to hold the most promise for improving the achievement of Aboriginal learners in Canada, and undertakes an analysis of the implications for policy with respect to their implementation.

Methodology

This literature review was conducted in the period of January to March, 2009. In this undertaking, an effort was made to select representative research of high quality, with preference given to large-scale, longitudinal, and comparative studies which attempted to control for variables. Few of these exist in Aboriginal education. Due to this limitation, the broader literature was also consulted as a check on findings. Meta-analyses were utilized wherever found for their ability to identify across multiple studies those variables showing a strong association with student outcomes. The review draws heavily from international studies with applicability to Aboriginal education in Canada, with special emphasis on findings from New Zealand, which possesses the largest indigenous population of any developed country. Within Canada, the preference was given to studies yielding data based on larger samples or those making use of cross-case analysis. Care was taken to include Aboriginal perspectives. The review of Canadian research was made more complex by the necessity to locate and assess relevant reports from 13 provinces and territories, various federal government agencies, Aboriginal organizations, research and policy institutes, university collections, school districts, and other sources. This was facilitated in some instances by direct requests to contacts within agencies or organizations, but the process could best be described as an environmental scan using a snowball approach, where one resource led to other sources of information. In all, close to a thousand international and Canadian sources were examined and some 340 were selected for their ability to contribute to this analysis.

Several caveats with respect to this review are stressed here:

- Much of the research on Aboriginal education, both international and Canadian, is qualitative (descriptive), anecdotal and small in scale, presenting issues of generalizability.

Although richly detailed case studies and action research in the classroom furnish invaluable insights about what works in particular contexts, such narrow evidence must be considered suggestive of promising practices rather than scientifically proven “best practice”.

- It is often not possible to isolate the effects of practices under study. Many of the findings are embedded in a range of practices. This is particularly true of broad policy reforms such as school governance, curriculum, and accountability which cannot be administered in controlled experimental design. Where jurisdiction reports indicate improving outcomes, these are considered for information about policy-linked practices, despite this limitation.
- The use of international findings must be tempered with recognition of transferability issues. Context is critical to understandings of best practice in education. Given the enormous diversity among Canada’s Aboriginal peoples, ‘best practice’ must be interpreted in a manner that respects local context/culture¹. As noted by Ball (2008), “The illusion that there are best practices that can be dropped into any setting is gradually giving way to a search for promising practices applicable in particular settings.” (19)
- This short review should not be taken as exhaustive. Due to the breadth of topics examined, what is presented within the space and time constraints of this paper is necessarily very brief. For the same reason, contradictory and variable findings receive limited coverage.

Following the initial review, from which a series of relevant themes (topics) was derived, a brief summary of delivery models in various jurisdictions and their associated initiatives and challenges was constructed as a background context for a discussion of evidence on best practices around these themes. Within each topic area, analysis of the findings was then conducted to discern emerging patterns and synthesize these into the most salient evidence to guide directions for improving outcomes for Aboriginal learners in Canada. The key findings in each area were then discussed in turn for their implications for policy. The policy lessons that could be drawn from the international comparators were then considered and an overall set of policies identified which hold the greatest promise for large-scale progress in Aboriginal education.

The author is indebted to a small and diverse group of advisors who provided suggestions regarding valuable sources of information and informal feedback on various sections of this report to assist with the interpretation of the findings.

¹ See, for example, the discussion by Chandler & Lalonde in ‘Transferring Whose Knowledge? Exchanging Whose Best Practices?’ in White, Wingert, Beavon & Maxim (Eds.), 2006.

II. Background

Before turning to the literature on best practices, it is important to review the operational contexts for Aboriginal schooling. In this section we provide brief profiles of Aboriginal education delivery in Canada and in three international systems: New Zealand, Australia and Norway. These nations have been selected for several reasons. Similar to Canada, these countries are experiencing growth trends in their indigenous populations², they are enacting focused policies to address the needs of and improve educational outcomes for indigenous learners, and they offer a significant research base on effective practices which may be transferable.

Canada's Aboriginal Populations

Canada's Aboriginal population is comprised of First Nations, Inuit and Métis peoples, each with distinct histories, cultures and traditions (see brief profiles below). Over one million people, or almost 4% of Canadians, identified themselves as Aboriginal in the 2006 census. Almost half are under the age of 24, having important implications for the education system. Between 1996 and 2006, the Aboriginal population grew by 45%, and is projected to increase 57.9% by 2021, more than four times the projected rise in the general population. Aboriginal peoples are most concentrated in Nunavut (85%), Northwest Territories (50%), Yukon (25%), and Manitoba and Saskatchewan (at 15% each). They are increasingly urban, with 54% living in urban areas. Approximately 21% speak an Aboriginal language, a percentage which steadily declined in the past decade, with only 18% of children under the age of 14 identified as speaking a native language (Statistics Canada, 2006). Thirty-two percent of northern Aboriginal children have an Aboriginal language as their sole mother tongue (O'Sullivan et al., 2007). Recent severe language shift, causing loss of proficiency in either Aboriginal first language or English/French, is recognized as a serious impediment to learning for children entering school (Norris, 2008; Battiste, 2005; Fulford, 2007; O'Sullivan, 2007).

The educational attainment of Aboriginal students remains a serious challenge across Canada (CMEC, 2007). In comparison with a 90% graduation rate for non-Aboriginal learners aged 20-24, just 40% of Inuit, 50% of First Nations, and 75% of Métis students in this age category have completed high school (Statistics Canada, 2008c; Richards, 2008).

First Nations

According to the 2006 Census, an estimated 698,025 people identified themselves as North American Indians or 'First Nations people' (both status and non-status Indians). The First Nations population increased 29% between 1996 and 2006, 3.5 times that of the non-Aboriginal population. An estimated 40% of First Nations people live on reserve, while the remaining 60% live off reserve. Ontario is home to the largest number of off-reserve school-aged First Nations children (19,665). Off-reserve First Nations have a high mobility rate (24%), and 40% percent of children live in single parent households. The youngest First Nations populations are found in Manitoba and Saskatchewan, with median ages between 20 and 23 years. First Nations people report speaking over

² According to Statistics Canada (2006) the Aboriginal share of Canada's population (4%) ranks second internationally, behind that of New Zealand, where the Maori account for 17% of the population. Indigenous peoples make up approximately 2.5% of the total population in Australia and 2% in Norway.

60 different Aboriginal languages, with 29% saying they can do so well enough to carry on a conversation. Cree is spoken by the largest number of First Nations people, followed by Ojibway (Statistics Canada, 2006). Half of First Nations children living off reserves neither speak nor understand an Aboriginal language (Statistics Canada, 2009).

Educationally, First Nations attending on-reserve schools fare worse than those attending provincial schools. The lowest high school graduation rates for on-reserve students are in Manitoba (28%), Alberta (32%), and Saskatchewan (38%) based on 2006 census data (Statistics Canada, 2008c; Richards, 2008c). A post-censal survey (N=60,000) of school experiences of off-reserve First Nations children aged 6-14 identified the following factors as likely to be associated with perceived school success: getting on well with teachers and classmates, having parents who reported being satisfied with their school's practices, reading daily, participating in sports, art or music at least once a week, and living in the highest household income decile. Factors most likely to be associated with lower achievement were poor attendance, having been diagnosed with a learning disability or attention deficit disorder, and having parents who attended residential schools (Statistics Canada, 2009).

In general, First Nations on-reserve are represented at the national level by the Assembly of First Nations (AFN), while the Congress of Aboriginal Peoples (CAP) represents off-reserve and non-treaty First Nations and Métis. Both organizations are active in education policy, advocacy and long-term capacity building, and they (or their provincial/regional affiliates) partner with federal and provincial governments on educational initiatives to achieve their goals (Congress of Aboriginal Peoples; Assembly of First Nations, webpages).

Inuit

According to the 2006 Census, there were 50,485 Inuit in Canada. The Inuit population increased much more rapidly (26%) between 1996 and 2006 than the non-Aboriginal population (8%) and is much younger. The median Inuit age is 22, compared with 40 years for non-Aboriginal people. The majority of Inuit (78%) live in Inuit Nunaat, consisting of four regions across the Arctic. Forty-nine percent of Canada's Inuit live in Nunavut, 19% in Nunavik in northern Quebec, 6% in the Inuvialuit region of the Northwest Territories, and 4% in Nunatsiavut in northern Labrador. While the Inuktitut language remains strong overall (spoken by 69% of Inuit), its knowledge and use are in decline (Statistics Canada, 2006).

Just 12% of Inuit men and 14% of Inuit women aged 25-64 have completed high school, with the most prevalent reasons for dropping out cited as pregnancy, work, and boredom (ITK, 2008b). Isolation, poverty, high suicide rates, and limited language and cultural relevance are among other notable barriers to successful schooling for young Inuit (Battiste, 2005). An extensive report on the Innu school system in Labrador found that only one in three Innu children in Labrador attends school, 35% suffer from fetal alcohol syndrome, 15 year-olds tested were an average of five years behind in reading and math, and only three students had graduated successfully from high school between 1993 and 2004 (Philpott, et al., 2004).

The Inuit are represented by the Inuit Tapiriit Kanatami (ITK), whose role is "to secure a more equitable place for Inuit within Canada by advocating policy reform and taking action on issues on Inuit terms" (ITK, 2008). In 2007, the ITK launched a multi-phase Education Initiative to develop a comprehensive roadmap for improving outcomes for Inuit children and youth. A Research Summit held in April 2008 was instrumental in identifying the critical challenges, success strategies, and next steps (ITK, 2008a).

Métis

Derived from the mixed marriages of indigenous women and early European fur traders and settlers arriving in Canada, the Métis played a vital role in building the country and possess a distinct culture. Their traditional language, Michif, is a blend of French and First Nations languages. The 2006 Census reports the Métis as the fastest growing Aboriginal group in Canada, increasing by 91% since 1996 to reach 389,785 in 2006. Seven out of 10 Métis live in urban areas; 87% Métis live in Ontario or the western provinces. Older Métis are more likely to speak an Aboriginal language. An estimated 12% of Métis aged 75 and older were able to converse in an Aboriginal language, while less than 3% aged 44 and under spoke an Aboriginal language. The most commonly spoken Aboriginal language among today's Métis is Cree (Statistics Canada, 2006).

Lacking the federal status of First Nations, Métis have no land base except in Alberta, where there are recognized Métis settlement areas, and no funds for education and other services guaranteed to First Nations through treaties. Métis students attend provincial schools. There are no Métis schools or curricula, and there is no Métis School Board authority (Battiste, 2005).

The Métis National Council (MNC) along with its provincial/regional affiliates represents Métis people. The MNC's goal is to secure a healthy space for the Métis Nation's on-going existence within the Canadian federation and to advance self-government at the community, regional and national level (Métis National Council, 2002; 2009).

Education Delivery for Aboriginal Learners

Aboriginal education in Canada is characterized by a complex system of governance and funding and is therefore provided in different ways. Students living off-reserve normally attend provincial schools for which the Constitution delegates authority to provinces and territories. The federal government through the Indian and Northern Affairs Canada (INAC) is responsible for the education of First Nation students living on reserves, who may attend schools operated by their bands, provincial schools through educational service or tuition agreements negotiated by their bands or the regional INAC offices, or one of the few remaining federally operated schools on reserve. In keeping with the policy of 'Indian control of Indian education', almost all reserve schools are now under First Nation management (Fulford, 2007).

The provinces and territories provide the majority of educational services, as Métis and First Nations children living off reserve are educated in provincial schools serving broader populations. The northern territories provide education services for their Registered Indian and/or Inuit populations. Aboriginal community involvement in schooling varies according to the jurisdiction. The federal government shares responsibility with First Nations for the provision of education to children from reserves attending provincial, federal or band-operated schools (CMEC, 2007, 2008).

A necessarily brief overview of educational services and recent initiatives, federally and in selected provinces and territories follows.

Federal Government

Indian and Northern Affairs Canada funds band councils and First Nation education authorities for the education of children in Kindergarten to Grade 12 who attend schools on reserves (60%) or provincially-run schools off reserve (40%). In 2006-07, the Elementary/Secondary Education

Program supported approximately 120,000 students and 515 schools with a budget of \$1.2 billion. The program pays for: instructional services in on-reserve schools operated by the First Nation or by the federal government; reimbursement to provinces for tuition costs of students attending provincial schools off-reserve; and support services such as transportation, counselling, accommodation and financial assistance. The Elementary/Secondary Education Program includes project-based initiatives (\$65 million in 2006-07) providing additional services designed to support improved educational outcomes, such as professional development for teaching staff, teacher recruitment and retention, and greater parent and community engagement in education. In addition to these, INAC funds a variety of programs and research, including Special Education, Cultural/Educational Centres, First Nations SchoolNet and First Nations and Inuit Youth Employment Strategy (INAC, 2008a).

In 2008, INAC launched the *Reforming First Nation Education Initiative* to support improved educational outcomes through investments in two additional programs:

The First Nation Student Success Program (FNSSP) is a proposal-driven program designed to support First Nation educators on reserve (Kindergarten to Grade 12) in their ongoing efforts to meet their students' needs and improve student and school results. In particular, the program will help First Nation educators to plan and make improvements in the three priority areas of literacy, numeracy and student retention. The FNSSP has three components:

- **School Success Plans:** To introduce a consistent and comprehensive school success plan and support the development and implementation of activities outlined within the plan;
- **Student Learning Assessments:** The results of student learning assessments are used to identify areas for improvement. At a minimum, schools will participate in their respective provincial standard testing process. The FNSSP will support First Nation schools in selecting and implementing student achievement testing tools; and
- **Performance Measurement:** To support a First Nation school's ability to monitor the progress of students, manage schools and program-related information, and make it easier to gather, analyse and report on financial and performance indicators.

Funding is available on a proposal basis to eligible recipients who undertake all three components of the FNSSP within a three year period (INAC, 2008b)

The Education Partnerships Program (EPP) is a proposal-driven program to promote collaboration between First Nations, provinces, INAC, and other stakeholders towards improving the success of First Nation elementary and secondary students in First Nation and provincial schools. EPP encourages the establishment and advancement of formal partnership arrangements that aim to develop practical working relationships among officials and educators in regional First Nation organizations and schools, and those in provincial systems. Funding is available on a proposal basis to eligible regional First Nation organizations for the negotiation and drafting of tripartite education Memoranda of Understanding (MOU) and implementation of joint action plans (INAC, 2008c).

British Columbia

The Province is responsible for educating 66,000 off-reserve Aboriginal students in the public system which is administered by 60 school districts. Aboriginal students represent 10% of overall enrolment, and their numbers are increasing, despite declining enrolment in the school system. The education of on-reserve Aboriginal students is a federal responsibility delivered by 143 band schools, enrolling about 5,000 students (Dosdall, 2007).

The Aboriginal Education Enhancements Branch is responsible for developing government policies, procedures and initiatives related to Aboriginal education in British Columbia. In 1999, the federal government, the BC government, its education partners and Aboriginal representatives signed a Memorandum of Understanding (MOU) to work jointly to improve success rates for Aboriginal students. This led to a framework for the creation of Enhancement Agreements. An EA is a working agreement between a school district, all local Aboriginal communities, and the Ministry of Education. The EA establishes a collaborative partnership between Aboriginal communities and school districts that involves shared decision-making and specific goal setting to meet the needs of Aboriginal students, with key performance indicators at the student level tracked and reported annually. Fundamental to EAs is the requirement that school districts provide strong programs on the culture of local Aboriginal peoples on whose traditional territories the districts are located. The majority (43) of BC's school districts have developed Enhancement Agreements with both parties identifying and sharing resources to achieve agreed goals.

In 2000, the Ministry of Education established a data collection system with a Personal Education Number (PEN) for each student. The Ministry, with the support of Aboriginal communities, breaks out the data annually to show the differences in achievement between Aboriginal and non-aboriginal students at the school, district and provincial level on key indicators. This information assists schools and districts with formulating annual improvement plans and evaluating progress towards goals specified in Education Agreements (Dosdall, 2007). Each year since 2001, a provincial report on Aboriginal education entitled, *How are We Doing?* has been published by the Aboriginal Education Enhancements Branch.

The education interests of First Nations people in British Columbia are represented by the First Nations Education Steering Committee (FNESC), established in 1992. FNESC has undertaken numerous capacity building initiatives to support education quality in band schools, working closely with the First Nations Schools Association (FNSA). Recent initiatives include: the preparation of a Governance Training strategy, development of English 12 First Peoples curriculum and examination, an Aboriginal Teacher Education Consortium, completing a 4-year school measures and data collection project, exploring standardized testing for FN schools, establishing a First Nations Parents Club, various professional development programs, and support for revitalizing aboriginal languages, including developing a framework with the BC College of teachers for certifying teachers of FN languages (FNESC, 2007; FNSA, 2008).

In December of 2006 the federal government passed the *First Nations Jurisdiction Over Education in British Columbia Act*, developed in partnership with the Government of Canada, the Province of BC and the First Nations Education Steering Committee. This *Act* recognizes First Nations jurisdiction over the education of First Nations on-reserve students in British Columbia. The province is the first in Canada to establish this kind of relationship which accords First Nations people the right to set up their own school boards to operate their schools, develop curriculum and exam standards, and certify First Nations teachers (Dosdall, 2007).

Manitoba

The education of approximately 15,000 Aboriginal students living on Manitoba's many reserves is administered through the INAC regional office located in Winnipeg. The majority of Aboriginal students in Manitoba are taught in provincial schools and funded through tuition arrangements with the host school division. The schools typically follow the curriculum and graduation requirements set by Manitoba Education, Citizenship and Youth (MECY, cited in Fulford, 2007).

Manitoba's two priorities for Aboriginal education at the elementary/secondary levels were stated in its *Aboriginal Education Action Plan 2004–2007* as increasing high school graduation rates and improving the Aboriginal education research base. Subsequent strategies to increase success for Aboriginal learners include the Aboriginal Academic Achievement (AAA) grant which supports family involvement, high school graduation rates and educator expectations; the Building Student Success with Aboriginal Parents (BSSAP) Fund to engage Aboriginal parents and families more fully in the education of their children, and the development of Aboriginal curriculum guides and resources, and the undertaking of significant field studies. Following Saskatchewan's lead, Manitoba launched a Community Schools Partnership Initiative (CSPI) for improving involvement of Aboriginal parents and coordinating the support systems of schools and other community service agencies (Phillips, 2008). Progress on various Aboriginal Education Action Plan initiatives is reported in MECY, 2007b.

Significant curricular changes have been made system-wide. Manitoba schools are implementing a new social studies curriculum incorporating FNMI perspectives at every grade level, beginning with K-4 classrooms (Manitoba Education, 2007a). A comprehensive K-12 framework for Aboriginal languages and cultures introduced in 2007 now serves as the basis for Aboriginal language programming in the province (Manitoba Education, 2007b).

Manitoba introduced the Aboriginal Identity Field (AIF) in the Education Information System in 1999/00 to assist the department, school divisions, and schools in collecting more accurate data to reflect the Aboriginal student population and to plan programs to improve student success. Voluntary declaration of identity is provided through consent by parents/guardians on student description forms or letters provided by the department to all K-S4 schools. A provincial promotional strategy to increase AIF participation was launched in the 2005/06 school year and continues to present. Also in 2006, the Province gathered baseline information about the Aboriginal teacher population to assess current capacity and plan for future needs in this growing sector. Manitoba also works in a lead capacity with the Council of Ministers of Education Canada (CMEC) towards establishing approaches across jurisdictions to encourage Aboriginal students to self-identify, coordinating common data and indicator definitions, and initiating parallel data-collection procedures (MECY, cited in Fulford, 2007)

Manitoba's Aboriginal Education Directorate (AED) established in 2004 has a mandate to ensure that education and training systems are responsive to the needs of Aboriginal peoples. The Directorate consults with many partner groups and works to ensure an integrated approach to Aboriginal education and training, promote the removal of systemic barriers to Aboriginal student success, collaborate across related government departments, and support strategic research. An Aboriginal Education Directorate Advisory Council advises on issues related to Aboriginal education and provides important links to the Aboriginal community and other education partners (MECY, cited in Fulford, 2007).

Ontario

Aboriginal students in Ontario, as in other provinces, attend school under a number of options. Approximately 20,100 First Nations students living in FN communities attend federally funded elementary or secondary schools in their FN communities. Some 5,212 FN students living in FN communities attend provincially funded schools under a tuition agreement between the federal government and the receiving school board. The remainder (an estimated 18,300 FN students, 26,200 Métis students and 600 Inuit students) live and attend schools within school board jurisdiction and are a provincial responsibility. Funding for these students is provided by the MOE to school boards (Ontario MOET, 2007a).

Since the establishment in 2006 of its Aboriginal Education Office (AEO), the Ontario Ministry of Education has committed to a holistic and integrated approach toward closing the achievement gap between Aboriginal learners and their peers by 2016. It has focused on supporting improvement for First Nations, Métis and Inuit students through the following measures:

- Developing and supporting the implementation of *The Aboriginal Education Policy Framework*. Developed through an extensive consultative process, this policy commits the government to a) increasing system capacity to address learning and cultural needs of FNMI students, b) providing appropriate programs, services and resources to facilitate improved learning outcomes and enhanced identity, c) facilitate understandings of Aboriginal culture across all students, staff and elected officials, and d) promoting increased participation by Aboriginal students, parents and communities in strategies to promote the success of FNMI learners (Ontario Ministry of Education, 2007a).
- Supporting boards in developing self-identification policies for First Nations, Métis and Inuit students to assist in monitoring and reporting results. A number of pilot projects across the province produced useful templates, tools and best practices to be adapted by other boards (see Ontario Ministry of Education, 2007b).
- Enhancing teacher education opportunities for potential First Nations, Métis and Inuit educators and related training and professional development for all teachers (Ontario Ministry of Education, 2007a).

A key goal of the *Aboriginal Education Policy Framework* is to gather baseline and on-going data on key indicators of Aboriginal student attainment and provide progress reports every three years on goal implementation and results. By submitting Aboriginal self-identification data files to the Education Quality and Accountability Office, Boards may request achievement results for their Aboriginal students on the annual assessments administered to all Ontario students at Grades 3, 6 and 9. Using such data, schools and boards are encouraged to develop yearly action plans with a concerted focus on improving literacy and numeracy skills as well as other targets and strategies to improve FNMI student outcomes (Ontario Ministry of Education, 2007b).

Quebec

Close to 90% of Aboriginal students in Québec attend the band school in their community. The eleven First Nations of Québec have varying degrees of autonomy and responsibility with regard to their education systems.

Three nations which collectively serve about 6,000 students are regarded as Agreement communities: the Crees and the Inuit under the James Bay and Northern Quebec Agreement (1975), and the Naskapis under the Northeastern Québec Agreement (1978). Educational services offered in Agreement communities are jointly funded by federal and Québec governments. Cree schools are under the jurisdiction of the Cree School Board, where preschool, elementary school, secondary school, vocational training and adult education programs set by the Ministère de l'Éducation, du Loisir et du Sport (MELS) are taught in Cree, English and French. The Québec government covers 25% of total education costs. The situation is similar for the Inuit, who are under the jurisdiction of the Kativik School Board. The Québec government pays 75% of the costs related to this board's services, which are offered in Inuktitut, English and French. The Naskapi School is affiliated with the Central Québec School Board; the Québec government finances 25% of the school's total budget.

The federal government is responsible for the education of young Aboriginals on reserves in Non-Agreement communities. It provides band councils with direct funding for students to the end of

secondary school and/or vocational training, and reimburses tuition and living expenses for those pursuing postsecondary education. Non-Agreement communities are supported by organizations such as the Institut Culturel et Éducatif Montagnais and the First Nations Education Council, which work to improve services, offer training for teachers and other educators and develop culturally relevant instructional materials.

When students living on a reserve attend a public school in Québec, their band council must pay the associated school board the equivalent of the per-student amount provided by the MELS. Young Aboriginals who do not live on a reserve and who attend a public school are funded in the same way as any other student for whom the MELS provides funding. The Québec government does not receive federal transfer payments for educational services for Aboriginal students in the provincial education system (MELS, 2007 cited in Fulford, 2007).

Northwest Territories

The Department of Education, Culture and Employment of the Northwest Territories oversees eight Divisional Education Councils and Authorities, including the Community Services Agency in the Tlicho region. The 49 schools in the NWT collectively enroll 9,323 students (2006-07), of whom 63% are Dene, Métis or Inuit (DECE, cited in Fulford, 2007). Curriculum and assessment are based on Alberta Education programs, and augmented by local courses and assessments.

Education policy is guided by five long-term goals and strategies set out in *Building on our Success: Strategic Plan 2005-2015* (NWT, 2005), supported by five more detailed documents addressing each goal in depth. *Pride in Our Culture*, addresses some of the most pressing challenges facing Aboriginal language preservation and revitalization, culture and art, Language Teacher training and culture-based education. In 2005-06, District Education Councils/Authorities received a contribution of \$6.8 million for Aboriginal languages as part of their Operating and Maintenance budgets, and an additional \$475,000 from Canadian Heritage Funding to further language and cultural programming. Formula funding is calculated on the number of Aboriginal students enrolled in a jurisdiction and allocated in addition to a fixed base sum. To ensure accountability for the contribution funding, DEC/A's are required to submit final and interim financial reports to the Department of ECE annually (DECE, cited in Fulford, 2007).

High school graduation rates have increased somewhat in recent years, reaching 51% in 2005. In the same year, the graduation rate for Aboriginal students was 49% (NWTDECE, 2005). This is attributed in part to grade extensions implemented in the past decade, allowing students in small communities to remain at home to complete their schooling (DECE, cited in Fulford, 2007).

The many small and remote communities in the NWT face special challenges due to the number of students needing support, low completion of high school credits and significantly lower graduation rates. The *Student Success Initiative* (SSI) introduced in 2002 is designed to foster local projects to tackle these issues through proposal based funding. The requirements and processes for planning, target setting, implementation monitoring and reporting on these projects are set out in the *SSI Administrative Handbook* (NWT, 2007).

The Territory is also recognized for its strong teacher induction program designed to address teacher recruitment and retention challenges (O'Sullivan et al., 2007). The Territory is employing a range of strategies towards the goal of increasing the number of Aboriginal teachers in the teaching force from 14% (2005) to 50% (NWT, 2005).

Nova Scotia

Nova Scotia Education is responsible for 135,303 students attending provincially-funded schools administered by eight boards of education (NSE, 2008a). Based on 2006 census data, Richards (2008) reports a significant disparity in high school completion rates for the province's Mi'kmaw students, depending on whether they are schooled on reserve (55% completion) or off-reserve (80% completion).

In 1999, the Mi'kmaq Education Agreement transferred jurisdiction for education from the province to signatory First Nation communities. Presently, ten of the 13 First Nation communities in the province are members of the Mi'kmaw Kina'matnewey (MK). Each member community has sole jurisdiction over its education system, enshrined by a unique constitution, by-laws, mission statement and strategic plan. This arrangement saw the transfer of approximately \$140 million dollars of education funds from Indian and Northern Affairs Canada to the MK for distribution to participating Mi'kmaw First Nations serving approximately 2,500 Mi'kmaw students. Programs covered under this agreement include primary, elementary and secondary education on-reserve, tuition agreements for students attending schools off-reserve, and post-secondary education funding to band members on and off-reserve. The funding also provides for the operation and maintenance of facilities, band administration and capital. The agreement is well into its second 5-year term. For bands in smaller First Nation communities who cannot support their own school, tuition agreements have been developed with the provincial government. (NSE, cited in Fulford, 2007).

A Council on Mi'kmaq Education (CME) established by the province provides guidance and makes recommendations to the Minister of Education. The Mi'kmaq Services Division provides the leadership, direction and planning for the development and implementation of supportive policies, procedures, programs and services for Mi'kmaq students attending public schools (NSE, cited in Fulford, 2007). Most recently, following a provincial consultation process led by Mi'kmaq Services, a new Mi'kmaq Liaison Office (MLO) was established in 2008 to serve as a conduit between the Department of Education and the province's Aboriginal communities. The MLO will work in partnership with the Mi'kmaq community, and under the advice of the Council on Mi'kmaq Education, to improve services to Aboriginal learners. The MLO will work with the Mi'kmaw Kina'matnewey to provide services to teachers and administrators in Nova Scotia's band-operated schools, and will assist the public school system through professional development and curriculum/resource development to promote the inclusion of Mi'kmaq content and perspectives in all classrooms (NSE, 2008b).

Nunavut

Over 9,100 students attended the 42 schools in the Territory of Nunavut in 2006. Over 96% of these students were Inuit. The same year Nunavut graduated 181 students, of whom 164 were Inuit. Graduation numbers have steadily increased since the territory was established in 1999, when there were 91 graduates. The Nunavut Department of Education is undertaking multiple strategies to address poor attendance, the lowest graduation rate (30%) in Canada, and the need to deliver programming relevant to its people. Among the elements identified as necessary to improve Nunavut's educational outcomes are the full integration of curriculum reflecting Inuit societal values at all grade levels while preparing youth for opportunities in Nunavut and Canada, a language of instruction strategy that meets local needs and prepares bilingual graduates, enhanced recruitment and training opportunities for Inuit teachers, and additional resources to support effective teaching and learning and ensure all children have access to school. (Nunavut, cited in Fulford, 2007).

The *Bilingual Education Strategy for Nunavut 2004-2008* (Nunavut, 2004) established a roadmap for the future, outlining the essential elements, including widespread consultations, for achieving this goal. In September 2008, a new *Education Act* which was eight years in the making came into force simultaneously with the *Inuit Language Protection Act*. Starting in July 2009, all students will receive a bilingual education in Inuit and either French or English, as determined by a local district education authority. The *Education Act* also affirmed a revised and coordinated curriculum based on Inuit principles, the continued development and provision of Inuit instructional resources to support this curriculum, a made-in Nunavut assessment program, greater involvement of parents, elders, and community, and the establishment of more formal roles and governance processes within the education system (Nunavut, 2008).

An Overview of Indigenous Education in Three International Systems

This review selected three education systems at the international level to examine for best practices in Aboriginal schooling. New Zealand, Australia and Norway, represent three education systems with informative policies addressing the schooling of a significant Indigenous population. A brief overview of each system is provided in this section. The research evidence on “what works” found within in these systems will be incorporated into the literature review in Part Three of this report.

New Zealand

New Zealand has two major indigenous populations: the Maori, who comprise over 17% of the general population, and the Pasifika, who make up 6.9% of New Zealanders. Both groups are characterized by below median family education and incomes, rapid urbanization, younger median ages than the general population, with larger proportions of students entering the school system relative to the broader population, and improving, but significantly lower relative attainment on key indicators of school achievement (New Zealand Ministry of Education, 2007b). In 2008, Maori students accounted for 22.1% of the school-age population, while Pasifika learners made up 9.5% of students (New Zealand Statistics, 2009).

New Zealand’s 2007 Annual Report on Education notes that results from the Program for International Student Assessment (PISA) show New Zealand students’ achievement as a whole to be near the top in reading, mathematics and scientific literacy. Maori and Pacifica student achievement has improved in recent years, but remains a concern as seen in these indicators:

- The achievement of Maori and Pacifica 15 year-old students in reading, mathematics and science was significantly lower than their peers on the 2006 PISA assessments.
- Between 2003 and 2006, the Maori achievement gap has narrowed at all National Certificate in Educational Achievement (NCEA) levels. In 2006:
 - 60% of Maori Year 11 students fulfilled NCEA numeracy and literacy credits, up from 52% in 2005.
 - 48% of Maori Year 12 students gained an NCEA Level 2 (graduation equivalent) or above, up from 37% in 2004.
- Maori students are the most likely to be early leavers; 40% of Maori students aged 17 were attending school in 2006, compared to 70% of all students.
- 50% of Pacifica school leavers achieved NCEA Level 2 or above in 2007.
- Maori and Pacifica students are at 3-5 times more likely to be truant, suspended or expelled than other students.

- Mean reading scores for Maori and Pasifika Year 5 students were significantly below the mean for New Zealand on the Progress in International Reading Literacy Study, 2005/06. Eighteen percent of Maori and 16% of Pasifika students tested did not reach the Low International Benchmark. (New Zealand Ministry of Education, 2008b; 2007a,c)

Key government initiatives in recent years to improve the achievement of indigenous students include both Maori and Pasifika-specific long-term strategic plans and the development and implementation of culturally focused early childhood, language instruction, curriculum, student engagement, teacher development, and parent and community involvement programs. Educational programming in both cultures is supported by a strong research component, as well as monitoring and annual reporting of progress against benchmarks and targets. The 2007 Annual Education report indicated that “in recent years, Maori and Pasifika students have improved at relatively higher rate than other groups, implying that disparities are reducing”.

Maori Education Initiatives

The *Maori Education Strategy* was released in 2000 after two years of extensive consultation with Maori communities. It was republished in 2005, adding new targets. *Managing for Success – the Maori Education Strategy 2008-2012* is now being implemented. This roadmap “informs the way the Ministry of Education works as a whole and supports specific actions to improve Maori outcomes” by sharpening the focus on improving the presence, engagement and achievement of Maori students. The current strategy prioritizes four areas: the foundation years, Years 9 and 10, Maori language education, and Ministry organization to drive change.

The Maori Language Strategy, introduced in 2003, provided New Zealand families with a range of language options for their children from early childhood: a) immersion settings, where 80%-100% of instruction is in Maori; b) bilingual settings, where instruction is 50% in English and 50% in Maori, or c) Maori language and culture instruction in a mainstream English school. Since 2006, enrolment in Maori immersion schools has risen 26% (NZ Ministry of Education, 2007a). Both the Maori Language Education Outcomes Framework and the expanded Maori language delivery envisioned by the *Maori Education Strategy 2008-2012* are underpinned by the necessity to establish more Maori-medium schools, increase the number of quality teachers proficient in Maori, strengthen partnerships with Maori education groups, and build the evidence base on Maori pedagogy (NZ Ministry of Education, 2008d).

Other key programs of particular note include the *Student Engagement Initiative*, which is significantly reducing youth truancy, suspensions, and expulsions, and the *Professional Development Projects in Numeracy and Literacy*. A large-scale research and data collection component is built into each Maori education program, tracking the effects on student performance. A *Best Evidence Synthesis* research program is helping to identify best practices and approaches (NZ Ministry of Education, 2007a).

Pasifika Education Initiatives

The *Pasifika Education Plan 2006-2010* outlines steps to improve student achievement across the system through increasing student attendance and retention and identifying and promoting effective literacy and numeracy strategies for Pasifika learners. Improving communications with Pasifika families and communities, enhancing early childhood services, and increasing the number of certified Pasifika EC and K-12 teachers are also key goals being implemented. Curriculum and language guides for Pasifika schools have been produced. A screening tool for pre-school and primary children in Pasifika schools and systems for monitoring the effectiveness of special education services have been developed. The Department is coordinating research on what works in clusters of participating Pasifika schools in the Schooling Improvement study (NZ Ministry of Education, 2008c).

Australia

Australia's Indigenous population is comprised of Aboriginal and Torres Strait Islander peoples, which are ethnically and culturally different from one another and contain many culturally diverse sub-groups. Indigenous Australians live all across Australia—30 per cent in major cities; 43 per cent in regional areas; and 27 per cent in remote parts of the country and outlying islands.

Based on the 2006 Census, Australia's Indigenous population is estimated to be 517,200, representing 2.5% of the total population (Australian Bureau of Statistics, 2008). The Indigenous population is expected to increase at an annual growth rate of at least 2%, twice that projected for the general population, and has a much younger age structure than the non-Indigenous population, with twice the proportion of people aged 15 years and under.

Some 3,358,963 full-time equivalent students, of whom 4% were Indigenous, were enrolled in primary and secondary schools across Australia in 2005 (Commonwealth of Australia, 2007a). States and territories have regulatory and funding responsibility for government schools which provide schooling for 66% of Australian students, and supplementary assistance to non-government schools serving approximately 33% of students. The Australian Government is a primary source of public funding for non-government schools and supplementary assistance to government schools towards the achievement of the *National Goals for Schooling in the 21st Century*, adopted in 1999. The Australian Government provides Indigenous-specific funding as a supplement to other mainstream funds. This funding is intended for strategic interventions to accelerate Indigenous students' learning outcomes. The Australian Government also provides assistance directly to Indigenous students (Commonwealth of Australia, 2007a).

The foundation of all Indigenous education programming is the *National Aboriginal and Torres Strait Islander Education Policy* (AEP). Endorsed in 1999 by the Australian Government and all State and Territory governments, this policy spells out 21 long-term national goals, which are subsets of four major goals:

- involvement of Indigenous people in educational decision-making
- equality of access to educational services
- equity of educational participation
- equitable and appropriate educational outcomes

Although there have been improvements since 1999 in the educational attainment of Australia's Indigenous students on a number of benchmarks, persistent disparities with the larger student population remain in school readiness, literacy, numeracy, and secondary school retention and completion. National literacy and numeracy assessments in 2004 revealed a significant portion of Indigenous students in years, 3, 5, and 7 did not meet national minimum standards, and achievement gaps ranging from 10-30% between Indigenous and non-Indigenous students across the grade levels (Commonwealth of Australia, 2007a). In 2006, less than half of the Indigenous students (48%) met the year 7 national numeracy benchmark, and on average, Indigenous students continued to be more than two and a half years behind non-Indigenous students. On international assessments (PISA, 2006), 38-40% of Indigenous students failed to achieve proficiency level 2 in scientific, reading and mathematical literacy compared to 12% of their country peers (Commonwealth of Australia, 2008).

The first public reporting of data in 2003 which provided a national picture of Indigenous education from preschool to university was an early deliberate attempt by the Australian Government to use data to drive improved educational outcomes. Open reporting of comparative Indigenous and non-

Indigenous data, complemented by increasingly rigorous and accountability mechanisms, has become an on-going feature of the Australian Government's approach to improving outcomes for Indigenous Australians (Greer, 2007).

In 2005, all Education Ministers in the Commonwealth agreed to make improving educational outcomes for Indigenous students their top priority. They affirmed a range of measures articulated in *Australian Directions in Indigenous Education 2005-2008*, outlining recommendations to accelerate the pace of change by engaging Indigenous children and youth in learning. The recommendations focus on strategies in five key domains: early childhood education; school and community educational partnerships; school leadership; quality teaching; and pathways to training, employment and higher education. All jurisdictions have agreed to prioritize these areas and are implementing related action plans (Commonwealth of Australia, 2007a).

Additionally, the Australian Department for Education and Children's Services has set out to engage Aboriginal communities more effectively in local school decision-making through its Aboriginal Community Voice structure. This body is to be officially recognized by the governing council of each school (Commonwealth of Australia, 2007). Templates were established for locally negotiated agreements that articulate arrangements related to school governance, expectations of student attendance and performance, the incorporating of local Indigenous knowledge, languages and culture into the curriculum, and explicit strategies for engaging families (Commonwealth of Australia, 2007a). In addition to a range of state/territorial initiatives, the Australian Government funded three Indigenous literacy and numeracy programs in 2005-2008: *Accelerated Literacy*, *Indigenous Tutorial Assistance Scheme*, and *Whole of School Intervention*, the latter of which promotes parent/community/school partnerships to improve literacy and numeracy outcomes. The most recent development is a *National Literacy and Numeracy Action Plan* which sets ambitious targets for Indigenous students, including halving the gap in reading, writing and numeracy skills and graduation rates and qualifications by 2020 (Commonwealth of Australia, 2008).

Norway

Norway's school system educates 616,388 students in 3,102 primary schools (grades 1-7) and lower secondary schools (grades 8-10). Schooling is compulsory to Grade 10, with an additional 455 upper secondary schools offering grades 11 and 12. Many of Norway's schools are small (40% have enrollments less than 300) and the classrooms are often multi-graded (Statistics Norway, 2009).

The national curriculum, which provided a common cultural, knowledge and values basis for all Norwegian students, was recently revised as the *Knowledge Promotion Curriculum*. This was introduced in 2006 to strengthen teaching of the basic skills, especially literacy and numeracy; articulate clear goals for pupil achievement across the curriculum at certain stages; offer more choices and specializations to facilitate career pathways for upper secondary students; and provide local education authorities greater freedom to supplement and adapt content and pedagogy for local conditions (Norway Ministry of Education and Research, 2009).

The Sámi population in Norway is estimated to be between 60,000 and 100,000, roughly 2% of the entire population. Traditionally, a nomadic people found primarily in northern regions of Norway, Sweden, Finland and Russia, the Sámi pre-dated the establishment of national boundaries. Exact population numbers are unknown, as there is no overall registration of Sámi people (Nordic Sámi Institute, 2008). Their traditional sources of livelihood include reindeer husbandry, hunting and fishing, farming, and crafts which they have practiced for centuries. As formal schooling was in conflict with the nomadic life style of the Sámi, boarding schools for Sámi children were established

by the church and state respectively during the 17th and 18th centuries. In these institutions, abolished in 1959, local language and culture were systematically repressed in attempts to “make Sámi children as Norwegian as possible” (Todal, 1998; Lie, 2003).

Sámi has three regionally-based languages, with that of the Northern Sámi being dominant. In 1992, Sámi was recognized as an official language in Norway (Todal, 1998). Sámi children have the right to Sámi language instruction and are entitled to be taught all subjects in Sámi if they reside in Sámi districts or elsewhere if they form groups of 10 or more (Norwegian Embassy, 2009). In 2006, in Norway's northern regions where the Sámi are most concentrated, an estimated 1,150 children attended Sámi kindergartens, 990 attended Sámi language elementary schools and another 1,650 attended Sámi-as-second-language schools (Nordic Sámi Institute, 2008).

In Sámi immersion schools, all subjects are taught in Sámi until Grade 9 with the goal of producing fully bilingual students. Norwegian is introduced in Grade 2 for several hours weekly, increasing to four hours in Grade 3-6. In Sámi as-second-language schools, language instructional time is reversed (Corson, 1996). Sámi as-first-language of instruction schools continue to gain in popularity, and Norway experiences a strong demand for bilingual teachers and difficulties in attracting fluent and competent teachers of Sámi (Corson, 1996; Todal, 1998; Lie, 2003). Although much studied, there is limited comparative data on the quality of instruction and achievement outcomes for children in Sámi immersion schools (Lie, 2003; Corson, 1996). This is attributed both to wide variations in Sámi programming (Lie, 2003) and Norway's absence of a national assessment scheme until introduced in 2007 as part of recent educational reforms (Corson, 1996; OECD, 2008).

The culture, language and traditions of the Sámi are part of the national curriculum for all students. In areas defined as Sámi districts, however, the *Sámi Curriculum*, introduced in 1997, is taught. This was revised in 2006 in conjunction with the introduction of the national reforms and re-titled, *Sámi Knowledge Promotion*. This curriculum constitutes equal, parallel teaching syllabi in all core subjects for pupils in the Sámi District and pupils outside this region who elect to receive instruction in Sámi. Special course syllabi have been developed for Sámi history and society, visual culture, music, dance and theatre, crafts, and reindeer husbandry (Norway Ministry of Education and Research, 2009.) The pedagogical challenges of adapting the structured national curriculum to suit traditional Sámi learning styles have been noted by Corson, 1996; Todal, 1998, 2003; Helander & Kailo, 1998; Lie, 2003; Nutti, 2006; and Lauamaa, cited in Kilpi, 2008. These researchers observe that alternative teaching methods to make use of local knowledge and accommodate Sámi concepts of time and place are necessary, as traditional Sámi education relies on experiential and land-based learning, most often from family and community members. In 1994, a new teaching methods course was introduced at Sámi College to equip teachers with more culturally appropriate teaching styles (Corson, 1996).

Government support is provided for the development of Sámi textbooks, training for Sámi teachers at the Sámi College, which in 2006 had graduated 189 teachers (O'Sullivan & Goosney, 2007). Sámi research and language studies are conducted at the University of Tromsø (Norway Ministry of Education and Research, 2009). In 2000, the elected Sámi Parliament established in 1989, was accorded partial responsibility for the Sámi school system, albeit limited primarily to the right to decide the content of some subjects (Todal, 2003). The Sámi Education Council, which also advises the Ministry on Sámi affairs, has a statutory role to advise Sámi parents on matters pertaining to language rights and maintenance, and how to ensure their local school board acts in accordance with the legislation in this regard. The Council also produces high-quality texts (in all three dialects) for all subjects and grades in the Sámi Curriculum for use in Sámi-as-first-language settings. While some texts are translated or adapted from existing Norwegian texts, the majority are newly created to ensure cultural relevance. Organizational control of the local school resides with the municipal school board and school administrators, with input from a parent council (Corson, 1996).

III. Review of the Literature on Best Practices

This section presents in turn the summaries of the literature in each of the domains examined for their insights on practices to support quality Aboriginal education.

Language and Literacy

The early acquisition of literacy skills is foundational to school success and a strong predictor of school completion (Snow, Burns & Griffin, 1998). The language of instruction plays a critical role in the development of reading proficiency (O'Sullivan, 2008). The majority of Canadian children are taught to read in their first language (English or French) and learn the school curriculum in that medium. Aboriginal students may experience wide differences in their language programming. This may be influenced by policy and legislation, geography, the availability of language proficient teachers and instructional resources, parent and community wishes, economies of scale or other factors. This section examines some evidence on language instruction models and what is known about best practice for the language and literacy development of young Aboriginal learners.

The Significance of Language

Heritage languages are important to Aboriginal identity, reflecting distinctive histories and cultures linked to family, community, land, and traditional knowledge (Norris, 2007). As such, they are considered to be a vital medium for the transmission and survival of Aboriginal Peoples (Battiste, 2000, 2002). In the face of continued decline in the number of native language speakers (Statistics Canada, 2006), schools are increasingly viewed as important vehicles for the maintenance and renewal of Aboriginal languages (Fulford, 2007; ITK, 2008; Ignace et al., 2005; Nunavut, 2004; Battiste, 2002; Royal Commission on Aboriginal Peoples, 1996; Cleary & Peacock, 1998). This is primarily left to the discretion of school boards³, however, as Aboriginal languages have official status only in the Northwest Territories and Nunavut, which has recently enacted language and education Acts entitling all students to instruction in Inuit (Nunavut, 2008).

The acquisition of an Aboriginal language is thought beneficial to children's school achievement, in part through promoting positive self-esteem (McClvor, 2005; Canadian Heritage, 2005; Chandler, 2006; Norris, 2007) a factor which is related to school achievement (Taylor & Wright, 2003). Such assumptions are supported by the findings of Deyhle & Swisher (1997) and Demmert (2001) whose syntheses of three decades of research on Native American language programs, found them to be associated with improved student attendance and graduation rates, behaviour, and academic performance.

For all children, oral language is the bridge to reading acquisition (Snow et al., 1998). In view of this, the language that children bring to school is an important factor in instruction. For some Aboriginal children, the language of instruction at school is the language of their home and of the community. For others, it represents a second language, one that may or may not be the dominant in the

³ The Katavik School Board and the Cree School Board in northern Quebec, which assumed control of their education systems in 1975 in Agreements with the Province and federal government established system-wide Inuktitut and Cree immersion programs.

community. And some Aboriginal children lack a strong base in any language at school entry due to rapid language shift in the community (Fulford, 2007; Norris, 2007).

Children's literacy development is more rapid if they are taught to read in their first language, and those who receive their early instruction via a second language experience a delay in both first and second language development (Cummins, 1998; O'Sullivan & Goosney, 2007; May et al., 2004). This finding is congruent with studies of Inuit children (Taylor & Wright, 2003; Martin, 2000; Taylor et al., 2000; Philpott, 2004). Instruction in Aboriginal languages is rare in Canada (O'Sullivan & Goosney, 2007; FNSEA, 2008).

Mainstream Language Environments

Most Aboriginal children entering school, regardless of their home language, find themselves in an English (or French) instructional environment. What actions can school take to increase their chances of becoming successful readers? Five illustrations from the research provide some insights.

In studying the work of 12 BC schools to improve literacy results for their ESL, mobile and at-risk students, Lewis (2007) observed that early literacy programs must be characterized by high-quality instruction. Teachers need to model explicit reading behaviours, tailor instructional strategies for specific needs; create flexible groupings; build background knowledge to make connections with text content; ensure many opportunities to talk/think about text; provide maximum reading time during the day with intriguing texts at a readable level; scaffold students who need extra support; monitor progress; and work in teams to engage in focused dialogue about pedagogy, diagnostic data, and samples of student work.

These practices are congruent with literacy strategies developed in seven Australian primary schools to support indigenous language children acquire skills in English: modelling, explicit teaching, scaffolding, experiential learning activities and games, immersing in all forms of literature, peer tutoring, and incorporating home language and culture. Adding trained English as Second Language (ESL) teachers to staff and establishing Aboriginal Education Advisory Committees were also found effective (Board of Education, New South Wales, 2000).

An Australian longitudinal study of 110 early primary teachers in decile one (high-poverty) schools found that children of those teachers who participated in a professional development program had higher literacy scores than a control group whose teachers did not receive this training. Four distinguishing factors were reported as contributing to better results for these Year 1 students: teacher expectations, deliberate teaching, making links to children's literacy traditions outside school, and developing teacher learning teams (Phillips et al., 2002).

Aboriginal students in ten schools studied by Bell (2004) benefited academically from the following organizational and teaching practices for literacy instruction adopted by the schools: common literacy periods; extending literacy time; ability groupings; levelled reading materials; utilizing professional support staff to reduce the size of instructional groups; precision teaching; vocabulary building to overcome language delay; catering to a perceived visual learning style; intense phonemic awareness as needed; preschool programs, and early diagnosis. Although English was the dominant language of instruction, efforts were made to create environments which integrated FN language and culture in all aspects of learning. Likewise, a focus on literacy was found to be a common element in a set of 17 Alberta schools demonstrating progress for FNMI learners who used such strategies as extended two-hour literacy blocks, multi-levelled programs and materials, guided reading, one-to one instruction, FNMI tutors and lunch time supports (Alberta Learning, 2007).

Second Language Environment

Although the delivery of the curriculum through an Aboriginal language is rare in Canada (O'Sullivan & Goosney, 2007), many schools offer a locally developed heritage language and culture classes for all students as part of the curriculum. A review of North American Aboriginal second language programs found sporadic instruction, limited exposure to the language, and a shortage of trained language speakers to be common problems in delivery of these programs (Ignace et al., 2005). The timetable is determined by the school, often once or twice a week. The language is selected by the school and is taught primarily through the medium of culture. If there is no fluent speaker on staff who can provide instruction, a district resource person such as an Aboriginal Education Consultant may fill this role. The participation of Elders and other invited guests from the Aboriginal community is also common. One goal of the program is to foster respect within the school for through learning more about Aboriginal perspectives and culture. Children receive exposure and practice in such language competencies as listening, observing, responding, storytelling, presentations, ceremonial language, reading, viewing, writing, representing and producing. Manitoba has recently published a *K-12 Curriculum Guide for Aboriginal Languages and Cultures*, which provides a framework for learning outcomes at all levels and domains for instruction Manitoba.

As well, in many provinces, secondary students may study Aboriginal languages in accredited courses. The Ontario secondary curriculum, for example, offers Cayuga, Cree, Delaware, Mohawk, Ojibwe, Oji-Cree and Oneida as language options in place of French (Ontario Ministry of Education, 2007b).

Bilingual Instruction

Some schools offer some form of bilingual instruction which includes an Aboriginal language through which curriculum is taught. There are important distinctions among bilingual/immersion programs which relate to the point at which the second language is introduced, intensity of second language instruction, and its use as medium to teach curricular content. Truly bilingual programs are designed to achieve full cognitive academic fluency in both languages by upper secondary level. Transitional language programs are designed to transfer students from first language instruction to mainstream classes on a full-time basis as quickly as possible.

Meta-analyses of the literature overwhelmingly demonstrate the relative effectiveness of bilingual programs, according to Krashen & McField (2005). Children in bilingual programs typically outperform their English-only counterparts on tests of academic achievement in English. Students in long-term bilingual programs do better than those in short-term transitional bilingual programs which gradually move students to English only instruction (Thomas & Collier, 2002; Rolstad, Mahoney and Glass, 2005). Rolstad et al. found advantages in bilingual approaches that utilized the student's first language for instruction for content areas, when the outcomes are measured in the student's native language. Bilingual programs which aim to develop children's academic use of both their first and second language (an additive approach) were shown to have social, cognitive and educational advantages. Children who achieve proficiency in the language of the school learn to read in other languages with considerable ease, and where they are encouraged to develop both first and second languages, there is a close relationship between their academic development in both (Cummins, 1998; Danesi, 1988). These findings are consistent with Canadian research on French immersion students (Statistics Canada, 2004; Bournot-Trites & Tellowitz, 2002).

In New Zealand's Maori immersion or bilingual schools, most students learn Maori as a second language, having come from English speaking homes. Students in these schools receiving 50% or more instruction in *Maori te reo* are more likely to meet national literacy and numeracy standards than those receiving less (NZ Ministry of Education, 2007b). The most effective programs are those with

the highest level of immersion (80-100% of instruction in Maori), and which introduce English instruction later rather than earlier (May et al., 2004). This finding supports the theory that children being taught initially in a second language take at least 6 years to acquire sufficient mastery to cope with subject content in the target language (Cummins, 1998; Bialystok, 2001; Thomas & Collier, 2002). Effective teachers must possess fluency in both languages, an understanding of how children learn a second language, and training in the best methods for instruction (May et al., 2004).

The research on American Indian immersion and bilingual programs also supports that with sufficient time allowed for instruction in their first language (ie., four or more years) prior to introducing English medium instruction, students achieve proficiency in both languages and may outperform English-only students (Holm & Holm, 1995; Johnson & Legatz, 2006).

There is limited information in Canada about language acquisition for Aboriginal students, or the numbers that participate in bilingual programs (O'Sullivan and Goosney, 2007). A number of commissioned reports and studies from Labrador, Quebec and Nunavut present discouraging data concerning the language success of Innu, Cree, and Inuit students under present approaches (Philpott, 06; Martin, 2000; Spada & LightBrown, 2002; Cree School Board, 2008). A recent evaluation of the Cree Language of Instruction Program (CLIP) prepared for the Cree School Board identified development of supporting resources, teacher training, monitoring and data collection, and provision for students' transition to mainstream language of instruction as inadequate. The report concluded:

[CLIP] has done a poor job of teaching Cree as a language and has completely failed to provide a language of instruction for curricular learning. An entire generation of students has passed through this regime and they are failing in record numbers. (97)

Fulford (2007) reports on a number of immersion schools where data collected over a number of years indicate they are achieving their program goals. Among the practices reported to be effective were the use of: parent commitment forms requiring language support and usage at home; vocabulary building, informal and authentic classroom settings, inter-active technology; land-based programs and camps, and oral activities such as ceremonies, storytelling and speech contests. These programs received support from dedicated curriculum/language specialists and other district resource staff, and most had established foundational pre-school programs in the target language.

Best Practices in Reading Instruction

Regardless of language of instruction, the broader literature is clear that children's reading acquisition is positively affected when there is:

- a) explicit instruction in sound to print knowledge skills. This is particularly important for at-risk populations (O'Sullivan & Goosney, 2007; Adams, 1990; Snow et al., 1998). Instruction which included explicit teaching of sound-symbol relations was found to eliminate the reading achievement gap between English speaking Maori children and non-Maori children by Grade 2 (Turner et al., 2003).
- b) early intervention and more intensive support for children experiencing difficulties (Snow et al., 1998).
- c) comprehensive instruction which focuses on making meaning from printed text (Lewis, 2006; Pressley, 2002; Phillips et al., 2005).
- d) meaningful practice with materials that are consistent with the child's cultural background (O'Sullivan & Goosney, 2007; Early Reading Expert Panel, 2003).

The research also is unequivocal that teacher efficacy in reading instruction and knowledge of *how* and *when* to apply appropriate strategies is a critical factor in children's success (Adams, 190; Phillips et al., 2005; Pressley, 2002). Intensive teacher professional development and side by side coaching in the classroom was found to be instrumental in the dramatic improvement of reading scores in low-achieving schools in the Ontario Turnaround Team program (O'Sullivan & Goosney, 2007), many of whom worked with large populations of Aboriginal learners as in the Mount Carmel case study reported in Fulford (2007).

Additionally, hearing impairments which are prevalent amongst young Aboriginal learners, are believed to contribute to language loss and delayed reading development, especially in second language instructional environments. Otitis media, or middle ear infection, is common to indigenous children in Canada, New Zealand and Australia, and specific interventions have been developed for reading instruction for children diagnosed with this condition (McCrae et al., 2000; Roberts & Wallace, 1997; Education Queensland, 2000). Some schools have had good success in overcoming this barrier to learning with the installation of sound amplification systems in primary classrooms (Education Queensland, 2000; Fulford, 2007; O'Sullivan & Goosney, 2007).

Culturally-Based Education

Schools that foster learning environments that honour the cultures and languages of Aboriginal students, not only augment their sense of identity but improve their chances to be academically successful. (Cherubini & Hodgson, 2008, p 1)

The influence of culture on the academic performance of Aboriginal students has been studied for decades. Many educators and researchers attribute the low success rates and frequent alienation of Aboriginal students to the cultural clash they experience in a school environment which contradicts their traditional values and norms (Backes, 1993; Whitbeck et al, 2001; James et al. 1995; Ingalls et al., 2006; August et al., 2006). One body of research suggests that a strong cultural identity is the most consistent promoter of success for Aboriginal students (Barker, 2009; Battiste, 2002; Deyhle & Swisher, 1997). Whitbeck et al. (2001), for example, found high scores on a cultural identity scale to be positively correlated with academic achievement for 5th to 8th grade students on reservations in mid-western United States. Conversely, a large-scale study of high school dropouts found a stronger sense of cultural identity was associated with higher drop-out rates amongst native youth (James et al., 1995).

Culturally based education (CBE) is premised on the theory that educators need to reinforce rather than suppress children's cultural identities to prevent school failure. In practice, CBE has many interpretations and goals (Kanu, 2005), ranging from using the learner's culture as the entry point of the teaching-learning process to fully integrating it throughout the school curriculum. Barker (2009) maintains that efforts to culturally reinforce education should not be limited to language and history courses, but be broadly embedded across the curriculum. Whitbeck et al. (2001) note that cultural practices influence instructional decisions and approaches as well as curricular content. Deyhle & Swisher (1997) and Richards et al. (2007) postulate that culture is not an add-on, but part of the institutional structure in successful schools. Agbo's (2001) bi-cultural or "pluralistic" perspective of CBE emphasizes that to function harmoniously in a contemporary world, native students must acquire proficiency both in mainstream knowledge and skills and the traditional knowledge of their cultural heritage. Fulford (2007) and Bell (2004) observed the bi-cultural approach of preparing children to "walk in two worlds" was dominant in the 20 Canadian schools they examined. Battiste

(2002) maintains the “central purpose of integrating Indigenous knowledge into Canadian schools to balance the educational system to make it a transforming and capacity building place for First Nation students” (29).

According to Demmert & Towner (2003), culturally-based education programs have six critical elements:

- 1) recognition and use of Native languages;
- 2) pedagogy that stresses traditional cultural characteristics and adult-child interactions;
- 3) teaching strategies that are congruent with traditional culture and contemporary ways of knowing and learning (opportunities to observe, practice, and demonstrate skills);
- 4) curriculum based on traditional culture that recognizes the importance of Native spirituality and uses the visual arts, legends, oral histories of the community;
- 5) strong Native community participation, including parents, elders and others in the planning and operation of the school; and,
- 6) knowledge and use of the social and political mores of the community" (pp. 9-10).

In Canada, First Nations schools provide much stronger CBE programs than those in the public system, although required under most funding agreements to follow provincial/territorial curricula. Fulford (2007) found examples of highly-developed parallel curricula based on local heritage, history, arts and literature. Many schools forge alliances with local/regional cultural centres and native organizations to take advantage of a wealth of additional cultural resources and activities to enrich the teaching program (Kavanagh, 2006; Fulford, 2007). Within provincial/territorial school systems, the process of curricular adaptation is uneven (Battiste, 2002). As an early adopter under its 2004 CBE Directive to Boards (NWT, 2004), the Northwest Territories possesses the most comprehensive culture-based curricula, Dene Kede and Innuuqatigiit. Nunavut, which has relied on Alberta curricula, is in the process of developing a distinctive Pre-K-12 program of studies grounded in Inuit languages and culture. The majority of provinces have committed to measures to “integrate content that reflects FNMI histories, cultures and perspective throughout the provincial curriculum and related resources” (Ontario, 2007a, p18), examples of which are found in Manitoba and Alberta’s recently restructured K-12 Social Studies curriculum to increase understandings and learning of Aboriginal peoples, history, and culture. Manitoba has also produced a K-12 curriculum guide with outcomes for Aboriginal language and culture programs, (Manitoba, 2007a). A number of provinces are partnering with universities and Aboriginal organizations for curriculum and resource development (Ontario, 2007a).

While CBE is increasingly accepted by Canadian educators and is mandated by some provincial and district policies, its implementation at the school level is highly variable. Among the many forms CBE may take are: observance of traditional celebrations and ceremonies, incorporating traditional land-based experiences, arts and culture activities, weekly language or cultural classes, small units of study to augment the regular curriculum, infusing the entire curriculum with traditional perspectives; establishing comprehensive credit courses, immersion or bilingual programs or specialized magnet schools, along with the hiring of Aboriginal teachers and support staff. A recent scan of Canadian policy in this regard found frequent statements of commitment to cultural responsiveness, but few educational authorities provided information about the standards and processes for determining if schools are successful in their efforts (Saskatoon Public Schools, 2008).

Some argue for school discretion in shaping the cultural program to suit the wishes of the local community. Bell (2004) observed that:

The importance of cultural teaching and practice varies widely in these schools. While all communities represented wanted their schools to honour their history and traditions and show respect for their culture, the

predominant opinion of many parents was that they wanted to be their children's cultural tutor and that schools should have limited involvement in this area.[E]ach school seems to have developed a level of cultural teaching and inclusiveness that is appropriate to its environment (309).

Indeed, the level of congruency between the cultures of the school and community can be an important factor in community support for the school (Demmert, 2001). Dialogue between educators and their communities is vital to integrating Aboriginal culture into the curriculum, as is the inclusion of Aboriginal people in the instruction process (Reyhner, 1992; Alton-Lee, 2003; Foley, 2002; Howard & Perry, 2007; Gunn & Pomahac, 2009; Barker, 2009). In this regard, Fulford (2007) notes the propensity of successful schools and their authorities to give hiring preference to local FNMI teachers and support staff.

Teachers and administrators play a pivotal role in creating culturally responsive schools (Saskatoon Public Schools, 2008; Klotz, 2006; Pewewardy & Hammer, 2003). Teachers require training in delivering culturally based programs (Reyhner, 1992; Kanu, 2005; Ingalls et al., 2006; Witt, 2005/2006); Tharp, 2006; Barker, 2009; Gunn & Pomahac, 2009), and in order to achieve the most effective learning outcomes, must value community strengths and use approaches in tune with the cultural context and values of their students (Melnechenko & Horsman, 1998); Alton-Lee, 2003; Lei, 2003; Bergstrom et al., 2003; Nutti, 2006). Positive impacts on student participation have been found through the use of informal and flexible furniture arrangements, culturally relevant materials and content, open-ended questioning, collaborative group work, and cooperative learning techniques (McCarty, 1991). Further discussion of culturally relevant pedagogy is found in the section on Quality Instruction. Administrators can ensure a visible and operational place for culture in all aspects of school life, including the assigning of teachers and resources and hiring of staff (Richards et al., 2007).

CBE Effects

A review of the literature by Demmert & Towner (2003) finds this research to support the hypotheses of a direct relationship between comprehensive culturally based education and the achievement of Native American students (Demmert et al. 2006). This is at variance with August et al. (2006), who conclude the majority of CBE studies, while furnishing plausible claims of success, lack the ability to prove direct causality for achievement. Both concur that numerous studies yield insights on the benefits of culturally sensitive approaches as seen in the following examples:

- Project KEEP, a long-term research and development effort aimed at improving the literacy skills of Native Hawaiian children, employed the use of culturally compatible instruction (including lesson structure, content, grouping strategies, interaction with students, classroom personnel, etc.) in its experimental reading program. Data from 1981 onwards summarized by August et al., (2006) show that students responded more favourably to a culturally familiar model of instruction in terms of behaviours known to influence academic attainment, and that KEEP produced “positive if modest effects on students’ reading achievement” (p 29).
- Numerous bilingual and immersion programs demonstrate positive effects for indigenous learners (discussed further in the section on Language and Literacy). See, for example: Mohawk, Cree and Mi’kmaq program data (Fulford, 2007); Maori-medium programs (May, Hill & Tiakiwai, 2004); and the Navaho program at Rock Point, AZ (Reyhner, 1999).
- According to McCrae et al (2000), successful indigenous education projects in Australia were characterized by the acknowledgement and support of indigenous culture and the use of

culturally appropriate approaches. They report significant gains on Year 2 and 3 assessments in a mathematics project which used explicit teaching strategies to contextualize content, promote understanding connections over rote memorization, and employed in-class support from an Indigenous worker. In New South Wales, Howard & Perry (2007) examined the interactions between three schools and their Aboriginal communities. They determined that the impact of engaging the community in developing locally grounded math curriculum, teaching approaches and resources was positive for both student learning and community-school relations.

- After three years of implementing pedagogical practices that incorporated local indigenous knowledge and practices into math curricula, schools in the Alaska Rural Systemic Initiative (involving 176 schools and approximately 20,000 mostly Native Alaskan students) had a higher percentage of students who were performing in the top quartile of the Grade 8 standardized mathematics exam and fewer in the bottom quartile compared to non-ARSI schools.
- Zwick and Miller (1996) found that when a culturally sensitive, activity-based outdoor science curriculum was introduced for Grade 4 students, American Indian students had significantly higher achievement scores than those in a control group not receiving the program.

There is a paucity of rigorous Canadian research on culturally based education. The following point to the need for evaluative studies in the Canadian context to provide guidance for practitioners:

- The Akwesasne Schools Science Program was developed with community input in 1991 to place Mohawk knowledge, values and beliefs at the centre of the curriculum. It brings a holistic and inter-disciplinary perspective to the science curriculum via engaging, hands-on, community-based components (Agbo, 2001; Fulford, 2007). The program is widely recognized for the effectiveness of this approach with Mohawk students and has been provincially accredited for use in other schools.
- A small Canadian study of two Grade 9 social studies classes (Kanu, 2005) examined comparative outcomes for 31 urban First Nations students whose teacher used a culturally integrated approach. The students in this class significantly outperformed the control group in academic achievement and demonstrated a broader understanding of content, higher level thinking and improved confidence.
- Stack (2006) conducted a three-year longitudinal study in a northern Alberta school which implemented an arts and local culture and history -infused curriculum for its Métis students in an effort to improve attendance, behaviour, academic achievement, and parent involvement. The data demonstrated positive effects only for parent engagement, with little change in the other indicators. These findings pointed to the necessity in evaluating CBE to consider the quality of implementation and the support provided to teachers learning new instructional approaches.

Best Practices in CBE

While space does not permit a detailed discussion of best practices in culturally based education, a synthesis of the literature identifies a number of common elements that should be present:

- Development and provision of appropriate curriculum guides and resources
- First Nation language programs and teaching resources
- A positive and inclusive school culture, emphasizing respect and relationships

- Elder Programs, traditional celebrations, and cultural enrichment provided through affiliations with Aboriginal cultural centres and organizations
- Affirmative action in hiring Aboriginal teachers and support staff
- Aboriginal Community Liaison staff
- Professional development for teachers related to cultural proficiency
- Effective strategies for communicating with parents and dealing with attendance/lateness
- Formal and informal structures for Aboriginal involvement in decision-making
- Varied assessments, including those which reflect multiple intelligences and ways of knowing

Student Engagement and Retention

The quality of relationships in schools has been found to link to academic success and school retention. A strong sense of community has benefits for both staff and students... Results are less misbehaviour (class cutting, reduced absenteeism), more academic interest, greater achievement gains, and reduced dropouts. The key finding is that "at-risk students are provided with a community of support. (Royal & Rossi, 1997)

Improving the Aboriginal high school graduation rate⁴ has become a priority with Canadian policymakers (CMEC, 2008), making it critical to understand the causes and prevention of dropping out for this population. This section summarizes the literature with respect to the causes of early school leaving and effective strategies for increasing retention and graduation rates.

Out of School Factors Related to Aboriginal Dropout

Social and economic factors contribute to poor graduation rates among indigenous students. Demographic statistics for New Zealand, Australia, USA and Canada indicate that indigenous children are disproportionately affected by poverty and health related issues which impact their success in school (Brady, 1996; Whitbeck, 2001; Jacobs, 2003; Watson, 2003; Philpott, 2006; Demmert, 2001; Reyhner, 1995a,b; St. Germaine, 1995; Biddulph, Biddulph & Biddulph, 2003; Phillips, 2008). In urban centres, high mobility frequently has a negative effect on school attendance and achievement (CCL, 2008b⁵; Phillips, 08). In rural and remote areas, long distances to the nearest school and traditional seasonal activities contribute to poor school attendance and completion (ITK, 2008; Battiste, 2005; Philpott, 2006; Fulford, 2007). In the Innu school system, the dropout pattern "begins in the primary school and continues to the point where only 30% of Innu youth enter high school, where they attend for less than 20% of the time" (Philpott, 2006, 372).

The evidence is conflicted on the degree to which family expectations and culture influence Aboriginal children's perseverance and success in school (Demmert, 2001; Reyhner, 1992a,b; James et al., 1995; Brady, 1996; Philpott, 2006), although most researchers believe it to be significant. Canadian Aboriginal parents have high aspirations for their children's graduation from high school,

⁴ The proportion of Canadian Aboriginals aged 20-24 years without a graduation diploma is 40%, compared with 13% for the remainder of the population in this age group (CCL, 2008).

⁵ Graduation rates were highest among the least mobile and lowest among the most mobile of the Aboriginal cohort entering high school in British Columbia in 1998. School changes related to a family move were associated with large decreases (30%) in completion rates (Aman, 2007 in CCL, 2008b).

yet the reality falls far short,⁶ suggesting that other factors are at play. The negative effects of risky behaviors such as truancy, drug and alcohol abuse, teen pregnancy, and anti-social behaviour on school completion are reported in Satchwell, 2006; Biddulph, Biddulph & Biddulph, 2003; Watson, 2003; Beauvais et al., 1996. The vast over-representation of New Zealand's Maori and Pasifika students in truancy, suspensions, and expulsions, can be attributed in part to risky behaviours, alienation from school, and parenting issues (Biddulph, Biddulph & Biddulph 2003). The resiliency research suggests that caring and supportive relationships, high expectations, opportunities to participate, as well as strong cultural values and spirituality help to insulate Aboriginal children against adverse environmental conditions (Whitbeck, 2001; Demmert, 2003; Bergstrom et al., 2003). There is common agreement across the literature that social issues of family poverty, housing, crime, nutrition, health and well-being affecting children's educational success must be addressed at the community and larger policy level.

Within-School Factors Related to Dropping Out

Many causes of early leaving are related to *in-school conditions* experienced by Aboriginal learners. The research can be clustered into six broad themes:

Lack of supportive Relationships. For many students, the nurturing environment associated with the early grades dissipates at the secondary level. For some, this is compounded by the need to travel outside their community to attend school on lengthy bus rides. As they encounter larger schools, bigger classes, more rigid timetables, multiple instructors, uncaring or insensitive teachers, and more overt racism, their inability to form warm and supportive relationships can lead to dropping out (Melnechenko & Horsman, 1998; Reyhner, 1992; McCrae et al., 2000; Lee & Burkham, 2003; Johnson, 2005; RCAP, 1996; Fulford, 2007; Phillips, 2008). From their review of 16 Alberta schools, Gunn & Pomohac (2009) conclude that "for FNMI students, emphasis on the personal-affective components of education prior to the academic focus is crucial" (p 35).

Increasing skills gap. When Aboriginal learners fall behind without appropriate support systems, their resulting inability to cope with academic demands increases their likelihood of dropping out. (Bergstrom et al., 2003; James et al., 1995; McCrae et al., 2000).

Poor instructional and support services. Aboriginal students frequently encounter teachers with low expectations and little knowledge of effective pedagogy for diverse learners (McCrae et al., 2000). Many do not receive timely diagnosis and intervention for learning problems, coaching in study skills, or career information from counsellors to motivate their studies. They are often inappropriately assigned to low-level courses with the most passive instruction (Reyhner, 1992; Butterfield, 1994).

Perceived irrelevance of school. Aboriginal students faced with an increasingly abstract curriculum with limited culturally meaningful content or hands-on learning experiences frequently become disengaged (McCrae et al., 2000). Lack of participation in extra-curricular activities (sometime due to long distances and prohibitive bus schedules) is also known to increase their chances of dropping out (Reyhner, 1992; Henchey et al., 2001).

Truancy, conflict and poor behaviour. There is a strong correlation between consistent attendance and achievement. Conversely, alienation or boredom at school can lead to a cycle of truancy and/or

⁶ In a recent survey of off-reserve First Nations parents, 97% indicated it was "very important" that their child graduate from high school (StatsCan, 2009). Philpott (2006) found that 80% of Innu parents wish their children to graduate, but only 51% of students see this as a tangible goal.

behaviours that result in suspensions and expulsions which further contribute to school failure (McCrae et al., 2000; Biddulph, Biddulph & Biddulph, 2003). Negative peer influences can adversely affect attendance and expectations to graduate (Sinclair, et al., 2003).

Uninvolved parents. Parent involvement and support promotes student achievement (Demmert, 2001). A variety of barriers may prevent Aboriginal parents from supporting their older children's success in school. These may include poverty, childcare arrangements, distance from the school, mistrust of school authorities, language and cultural issues and a lack of receptivity in the school (Phillips, 2008; Fulford, 2007; Reyhner, 1992; ITK, 2008).

Best Practices for Improving Retention and Graduation Rates

Many of the causes of early leaving are within the control of schools and education authorities to remedy. The literature offers multiple strategies that are proving effective in helping Aboriginal learners complete their schooling:

Attendance and Motivation. Numerous studies have found the introduction of Native language and cultural programs in schools to have beneficial effects on dropout rates, attendance and behavior (Demmert, 2001). Evidence that Maori students attending Maori-medium schools are three times less likely to be suspended than their peers in mainstream schools (NZ Ministry of Education, 2007a) reinforces the notion that culturally compatible environments improve attendance/engagement. Also in New Zealand, a *Student Engagement Initiative* has lifted Maori and Pasifica graduation rates and reduced absenteeism, suspensions and expulsions through approaches which include a work and study skills diploma program, broader curriculum choices, and parent-teacher meetings to establish and monitor specific learning goals (NZ Ministry of Education, 2007b).

Strategies reported to have improved indigenous student attendance in Australian schools include: using a case management approach, with home visits by indigenous support workers, pick-up services, monitoring and follow-up on all absences; establishing peer support groups, mentoring systems, homework centres, tutorials in personal planning and goal setting; customizing existing courses and creating new course options, work experience in potential careers, and increasing access to technology. (McCrae et al., 2000; Board of Studies, New South Wales). Extra-curricular programs have been found to help engage Aboriginal students in school, reinforce their sense of belonging, provide leadership opportunities, and increase motivation to excel. The *Sporting Chance Program* provides sports academies and a range of recreation activities targeted to indigenous students in regions with high dropout rates (Australian Government, 2006).

Staff Qualities. Quality teaching and productive classroom relationships play a crucial role in the success of Aboriginal learners. Successful schools recruit skilled teachers who are warm and caring, while holding high expectations for each learner (Demmert, 2001; Bell, 2004). They employ effective pedagogical approaches such as contextualizing and individualizing instruction, cooperative learning, culturally relevant resources, hands on activities, frequent positive feedback, time to reflect, and the development of meta-cognition and self-directed learning (Munns et al., 2006; Reyhner, 1992). Successful schools provide induction and mentoring for new staff, and effective professional development for all staff to engage them in meaningful experiences with Aboriginal perspectives and culture, and enable them to facilitate learning for Aboriginal students. Schools actively recruit Aboriginal teachers and support staff and serve as role models to Aboriginal youth (Butterfield, 1994; Fulford, 2007).

Organization of Instruction. Some approaches drawn from the Native American research include: restructuring schools to create smaller settings (ie schools within schools) and scheduling longer blocks of time in 'family groupings' to promote relationship building and sense of belonging, along with incorporating culturally relevant and 'place-based' material into the curriculum (Reyhner, 1995; Demmert, 2003). The use of flexible learning modules, more negotiated learning, smaller group instruction, and teaching for success while offering frequent and positive feedback during instruction was found effective in strengthening relationships between Australian teachers and their indigenous students (McCrae et al., 2000).

In some instances, whole school designs may be adopted to provide a more focused environment for Aboriginal learners. These options include magnet schools⁷, community schools, and off-campus alternative schools, often run in conjunction with Native Friendship Centres or other organizations. Ontario is sponsoring seven alternative pathways pilot projects to assist Aboriginal students complete their secondary education (Ontario Ministry of Education, 2007a).

Strong In-School Supports. For vulnerable youth, transitions between schools increase the risk of falling behind and dropping out. Many of the best practice approaches identified by Hoton et al. (2004) to support mobile students in Australia are also likely to be effective in Canadian contexts with large numbers of mobile Aboriginal students. These include having well-developed strategies for enrolment and induction, timely transfer of records, specialized staff support, flexible structures and groupings, individualized learning and support plans, student to student support, and outreach services for new families. These parallel the findings of a recent Canadian review of effective practices for mobile students (Wipf, 2008), who noted in addition that transportation may be provided to permit a student whose family has moved to remain in the same school; new students must receive immediate assessment and placement and be paired with a student buddy. Aboriginal liaison workers are increasingly being employed to facilitate communications between the school and its Aboriginal families (Phillips, 2008; Fulford, 2007; Alberta Education, 2007).

Many schools are establishing formal mentoring programs to help Aboriginal students develop a sense of belonging and pride (Gunn et al, 2004; MacCallum, et al. 2005; Satchwell, 2006; Alberta Education, 2007). Mentoring programs have been found to improve motivation, attendance, self-confidence and skills for participating Aboriginal youth (McCallum & Vella, 2006; da Costa et al., 2005). Manitoba's *Beginnings Project* is designed to provide parents of at-risk children with school-based employment, affording them opportunities to learn new skills that will enable them to support their children's learning more effectively (Satchwell, 2006). Elder programs bring elders and other Aboriginal role models from the community into the schools as respected sources of cultural information and spiritual guidance for students (Kanu, 2002; Pewewardy, 2002; Alberta Education, 2007). The recent Education Act proclaimed in Nunavut has established statutory role for Elders in the school system (Nunavut Legislature, 2008; ITK, 2008).

Counselling plays a critical role in keeping at-risk students in school (Demmert, 2001; Henchey et. al, 2001; Alberta Education, 2007). As well as assisting students access needed learning programs and services, counsellors also can communicate the benefits of staying in school and furnish students with information on pathways to their career goals. Such support can be crucial to Aboriginal youth whose families are unable to help them navigate this terrain. In Abbotsford, BC an intervention known as Advancement Via Individual Determination (AVID) offers a structured program of academic support to prepare at-risk students in Grades 9-12 for post-secondary studies. This Canadian AVID pilot follows programs in over 1,900 American high schools (SRDC, 2008).

⁷ Schools such as Children of the Earth and Niji mahwakwa (Winnipeg), Mother Earth Charter School (Wabamun, AB), Oskayak (Saskatoon); Amisway Academy (Edmonton), N'Swakamok (Sudbury)

Vocational/Apprenticeship Programs. Vocational and trades training is a commonly employed strategy to increase student retention in many countries, including Norway, US, New Zealand and Australia. As a result of innovative programs in Ontario, Alberta, BC, and the Northwest Territories, secondary students may enroll in trades programs permitting them to acquire and apply industry-related training towards high school graduation credits. British Columbia's Ace-IT program and the more targeted, Aboriginal Apprenticeships in Industry Training Program, provide examples of such programs. Similar programs in Australia have been successful in revitalizing remote indigenous communities and increasing the cohort graduating from school (Schwab, 2001; McCrae, 2000).

Before and After School Programs. Evaluations of before and after-school programs converge on the conclusion that there are positive effects on student motivation, attendance, attitudes towards school and may reduce risky behaviour (Simpkins, 2003; Reisner, Russell, Welsh, Birmingham, & White in Friedman, 2003; Grossman et al., 2002). Dynarski et al. (2003) found after school programs in poor urban neighbourhoods to have limited influence on academic performance after one year, but resulted in improved parental involvement and teacher-student relationships which can be important pre-conditions for learning. Schools examined by Phillips (2008) and Fulford (2007) report positive effects on attendance at school from breakfast programs. A recent survey of off-reserve First Nations parents by Statistics Canada found that one in ten (10%) off-reserve First Nations children was reported to be attending a before or after school program. Younger children were three times as likely as older children (15% versus 5%) to participate in these programs. As well, First Nations children in urban settings were more likely than those in rural settings (12% versus 5%) to be attending such programs (StatsCan, 2009).

Summer Literacy Camps. Summer literacy camps have been found to mediate the cumulative summer learning losses common to disadvantaged and at-risk students (Schacter, 2003; Borman, 2004) which can lead to disengagement and dropping out of school. In northern Ontario, Aboriginal Literacy Summer Camps provide literacy-based activities incorporating community culture for approximately 1,800 Aboriginal students aged 6-16, many of whom are 2-3 years behind academically and at-risk of dropping out. Frontier College, which operates the camps, has gathered anecdotal evidence through 75 interviews suggesting that the children who have attended the camps, for one, two and sometimes three years have gained in their reading and academic skills, are more disposed to learning and get along better with their peers. Parents and community members appreciate the presence of the camps in their communities as a positive vehicle for their children to be productively involved during the summer months, and there is universal support from the Chief and Councils in these communities (Fernandez, 2008). A summer literacy day camp in the interior of British Columbia offers literacy activities sensitive to Aboriginal culture and learning styles to First Nations students reading below grade level. The fall reading assessment data for a sample of 50 participants in the August summer reading program showed that 30 of them were now reading at grade level (Nechako Lakes School District, 2008). Similar programs are also being offered for urban Aboriginal students, such as Winnipeg's intensive six-week Summer Learning Enrichment program which utilizes non-traditional learning methods to help participants improve reading, writing and mathematic skills.

Home and Community Partnerships

Engaging the local community in the future of Indigenous education is vital if there is to be a significant shift towards equality of educational outcomes. (Commonwealth of Australia, 2007b, 2)

Research shows that strong and sustained gains in student achievement have been made when schools and families develop supportive partnerships (Walberg, 1999; Epstein, 2001; Dryfoos & Knauer, 2004). However, evidence concerning the impact of parental involvement is inconsistent (Levine and Lazotte, 1990; Demmert, 2001; Bull et al., 2008), and for minority learners and disengaged parents these links are not always positive (Stringfield & Teddlie, 1990; Lowe, 2007).

Alton-Lee (2003) cites New Zealand research suggesting that links to outcomes are more robust when school/parent partnerships focus directly on student learning. Biddulph, Biddulph & Biddulph (1993) compared the progress of low-achieving primary students whose parents received a five-hour program on helping their children to read with a matching group whose parents did not receive this program. They found students with parents in the program had significantly higher reading gains as well as more positive attitudes towards reading than the control group. The program has since been adapted for use at levels from primary to junior secondary and has been particularly effective with Pacifica and Maori parents. The second example provided by Alton-Lee is found in an impact evaluation in 2001 of the *Feed the Mind* campaign, a nation-wide strategy designed to enable parents to take a more active role in supporting their children's numeracy and literacy development. The parents sampled for the evaluation were predominantly lower income and Pacifica and Maori. In comparison with a benchmark survey prior to the intervention, these parents had more positive attitudes to helping students learn. Literacy and numeracy learning was seen to be more important, barriers had weakened, knowledge of how to help had increased, and targeted helping behaviours had increased.

In other New Zealand research, McKinley (2000) found higher parental participation and satisfaction rates, school-home communications, and student achievement and behaviour in Maori-medium than mainstream schools. This was attributed to a more holistic approach in the former, which did not treat home and school as separate. A national review of home-school partnerships (Bull et al. 2008) highlighted that more successful programs were characterized by respectful teacher attitudes toward parents, responsiveness to parent needs, a focus on learning, emphasis on at-home support, and excellent two-way communications.

In the United States, the Indian Act of 1972 recognized partnerships between schools and parents (including tribes and representatives of native communities) as essential to improving academic performance among Native American students. Demmert's review (2001) of the literature on these partnerships finds most to be descriptive case studies lacking measurable evidence of effects, but highlights several examples with measurable outcomes:

- Parental involvement in the design and implementation of school programs was strongly associated with improved student achievement in a California high school (Levesque, 1994).
- Partnerships between teachers and communities were associated with the success of 162 small rural high schools with primarily Indian and Eskimo students (Kleinfeld et al., 1985).
- Parental/extended family influences were found to be strongly linked to students' motivation and success in school (McInerney et al., 1997).

More recently, Kratochwill and colleagues (2004) studied Families and Schools Together (FAST) in three Wisconsin native communities. This activity-based program involving parents and their children aged 4-9, is aimed at decreasing behavior problems and increasing school achievement. Students from families involved in FAST after one year demonstrated greater academic improvement than comparison students whose families were not in the program.

In Australia, evaluations of 84 five-year projects using targeted government funding to improve Indigenous student outcomes (*What Works*, 2000) observed that projects failing to involve parents as

active partners in engaging students or make sustainable community connections were generally less successful (Lowe, 2007; Schwab, 2001). As a result of such findings, the national government mandated formal decision-making structures and processes within schools under the *Aboriginal Community Voice* initiative, through an Aboriginal Voice committee in each school whose role in governance, curriculum, and improvement planning and reporting is recognized in the school constitution (see sample implementation models in New South Wales, 2005, 2008; Queensland, 2007). Also in Australia, the *Whole of School Intervention Strategy* funds school/parent or community partnerships designed to build parent and community capacity to support indigenous student success as measured in improved attendance, literacy and numeracy skills, retention and graduation. Parent rooms in the schools, homework centres supervised by community volunteers, the use of parent-teacher meetings to jointly set goals, mentoring, and work experience projects are proving to be effective strategies (Commonwealth of Australia, nd; McCallum et al., 2005).

Canadian Findings

Canadian researchers Melnechenko & Horsman (1998) underscored the significance of family on the success of Aboriginal students and the importance of enhancing relationships between the home and the school. Examples from the Canadian literature illustrate that efforts to engage parents and the community have a positive impact:

- Improvements were reported in the attendance and academic performance of Aboriginal students in a range of BC school districts as a result of Aboriginal Education Enhancement Agreements establishing annual growth targets and strategies in collaboration with local First Nations authorities (Doddall, 2007; Aboriginal Education Enhancements Branch, 2009).
- Richards et al. (2008) concluded that high-performing BC school districts relative to Aboriginal student achievement and graduation rates were those districts who had established a high degree of participatory decision-making with local Aboriginal leadership.
- Positive outcomes on provincial achievement tests were found in the 17 schools studied in Alberta's *FNMI School-Community Learning Environment Project*. The schools are implementing a range of initiatives to engage parents and community (Alberta Education, 2007; 2008).
- A high level of parent and community engagement was identified as a success factor in 20 schools with high Aboriginal enrolment. Most demonstrated exceptional resourcefulness in communicating with parents and harnessing external partnerships to support learning (Bell, 2004; Fulford, 2007).
- Significant improvements in achievement, attendance, and behavior were reported in case studies of Princess Alexandra, Wapanohk, and Sacred Heart – inner city community schools partnering with multiple agencies to provide additional services to families to address social issues which interfere with learning success for their predominantly Aboriginal students (Phillips, 2008; Bell, 2004; Fulford, 2007).
- Families and Schools Together (FAST) is a two-year parental involvement program to reduce factors associated with school failure, with a specialized program for Aboriginal families. A national evaluation of programs in 31 Canadian schools involving 387 parents and over 600 children found a significant rise in the frequency with which parents assisted with homework, while teachers reported a mean gain of 8% on the school functioning subscale for participating children (Barrington Research, 2006).

While the benefits of partnering with parents and community are widely accepted, these collaborations will differ at each site, achieved through genuine consultations with stakeholders about how best to maximize success for Aboriginal learners in that context. The literature on community

engagement describes a continuum from the least to most empowering: advising community before implementing decisions, seeking community advice prior to making decisions, community participation in a shared planning process, and decision-making by the community (Alberta Children's Services, 2005).

Scaling Up

Programs designed to support efforts to forge productive, learning focused partnerships will scale up the number of schools engaged in more empowering forms of collaboration. Illustrative programs from three jurisdictions are provided in the following examples:

The **Northwest Territories** *Student Success Initiative* provides financial support to school-based improvement projects which are collaboratively developed with the school community, based on learning needs and agreed measures to demonstrate improvement. (Northwest Territories, 2007)

Manitoba has implemented a five-year program to support Aboriginal parent involvement and interaction in the public education system. Since 2004, the *Building Student Success with Aboriginal Parents* (BSSAP) program has funded over 42 school projects to promote a school environment that is conducive to Aboriginal parent participation (Manitoba Education, Citizenship and Youth).

The *First Nations Parents Club*, founded in **British Columbia** in 2004, has facilitated the formation of 134 local parent groups for First Nation schools with a total membership of approximately 2,800 parents. Through the support of the First Nations Schools Association, this program provides parent members with informational materials, a quarterly newsletter, training support through regional and provincial workshops and conferences, and rewards them for their efforts through a variety of small incentives (First Nations Education Steering Committee, 2007; First Nations Parent Club website).

In addition, an increasing number of formal long-term regional multi-sector partnerships committed to systemic improvements in Aboriginal education have also emerged. One such example is the *Okiciyapi Partnership* between Saskatoon Public Schools, the Saskatoon Tribal Council and the Central Urban Métis Federation. This collaboration has resulted in the co-production of cultural curricula and accompanying professional development for teachers, joint assessment projects to identify literacy skill gaps and the professional development needed to address them, a more representative workforce, and the establishment of a Cree bilingual program (Saskatoon Public Schools, 2009). Indian and Northern Affairs Canada recently introduced an *Education Partnerships Program* designed to promote similar collaborations between First Nation and provincial school authorities and other stakeholder groups through financial support for their development and implementation. It is believed that the development of such formal working partnerships will open the way to sharing of information, expertise, services and best practices to benefit Aboriginal students (INAC, 2008c).

The literature on effective inter-agency partnerships emphasizes the importance of the following practices to ensure success: clarifying roles and responsibilities, clearly articulating goals, securing commitment at all levels, mutual trust and respect, effective and efficient communication and information sharing, sustainable resources, effective planning and organization, strong leadership, continuity of key personnel, and establishing governance and performance monitoring systems (Cheminais, 2009; Lafond, 2006). Specifically in First Nations context, partnering agencies must work closely with First Nations groups in the formative development and the implementation of programs, respect FN decision-making processes, involve FN personnel and indigenous content, and ensure that services targeting FN children work primarily with this cohort (Assembly of Manitoba Chiefs, 2008).

Instruction

Quality teaching ... is the most influential point of leverage on student outcomes. (Alton-Lee, 2003, p 2)

Best evidence suggests that quality teaching and the classroom learning environment created by the teacher is the key variable in explaining up to 59% or more of the variance in student achievement (Scheerens, Vermeulen, & Pelgrum, 1989; Hill & Rowe, 1996; Sanders & Rivers, 1996; Hanushek, Kain, & Rivkin, 1998; Kyriades, Campbell, & Gagatsis, 2000; Cuttance, 2001; Hanushek et al., 2003; Willms, 2000; Whitehurst, 2002; Haycock, 2006). In light of these findings, the importance of high quality instruction for Aboriginal learners cannot be underestimated. This section examines the research on what teachers need to know and be able to do to teach Aboriginal children effectively.

In their recent report on teaching and learning in northern Canada, O'Sullivan & Goosney (2007) summarize the expertise required of teachers in the north, where many schools have high proportions of Aboriginal learners:

Like all teachers, they need to understand how children learn... and the instructional environments that support them; set high standards and expect all children to meet them; use assessments and data to guide their practice; provide effective instructional and motivational strategies for children; and recognize and help children who struggle... Importantly, they must embed their teaching in the child's culture so that children can use their experiences, values, and beliefs to help them on the road to success. This involves knowing and understanding the language and culture of the community served and the ability to work with parents and community effectively. (48)

Teacher Qualities

Researchers have identified a number of personal characteristics which help to make teachers effective with Aboriginal learners. Among these are the use of humour (Cleary & Peacock, 1998; NSW Board of Studies, 2000), high expectations (Brady, 1995), the capacity to establish warm and trusting relationships (Melnechenko & Horsman, 1998); and willingness to spend additional time in the community (Fulford, 2007; McBride & McKee, 2001). Bell (2004) observed that teachers who work effectively with Aboriginal students exhibited the following traits:

- *the ability to create a warm, accepting, and supportive learning environment that is relaxed and comfortable while maintaining focus on educational goals.*
- *the belief that each student can learn, flexibility to adapt and experiment to find optimal programs and methods for each student.*
- *a commitment to performance-based education and the willingness to use appropriate assessment tools to monitor student learning success and program effectiveness.*
- *an attitude of solving problems rather than assigning blame, and the willingness to tutor, coach, cajole, and encourage students towards their best personal achievement.*
- *an understanding of and respect for local culture, combined with the willingness to show that it is valued by its inclusion in curriculum.*
- *a commitment to parent involvementthrough frequent and effective communication (312)*

Similar teacher traits were reported by Bishop et al. (2001) in a study of the relationship between teacher characteristics and practices and literacy gains among Maori primary students in New Zealand.

Pedagogy

Tharp (2006) states that “the crucial element of the classroom is pedagogy: the organization of instructional activity and the patterns of teacher-student relationships” (6). Two systematic reviews of the literature provide a helpful backdrop for considering pedagogical standards and best practice in the context of Aboriginal learners.

In summarizing the international evidence on quality teaching for under-performing minority groups, Alton Lee (2003) identifies the following features:

- holding high standards for all students;
- caring, supportive and inclusive;
- using context to facilitate learning;
- responding appropriately to individual learning styles;
- providing sufficient time for productive learning and opportunities for higher order thinking; learning processes are determined by learning objective;
- curriculum, resources and instructional activities are aligned;
- structured scaffolding enables students to succeed;
- pupils and teachers engage constructively in goal-oriented assessment; and,
- self-directed learning is encouraged.

Alton-Lee concludes that what works to improve the achievement of diverse and at-risk students is no different from what works for other students. The critical factor is good pedagogy.

Tharp’s (2006) systematic analysis of the pedagogical research on practices associated with higher achievement for mainstream students and for Native American children yielded interesting comparisons. When these practices were categorized, five standards of effective pedagogy were found to be common to both populations: joint productive activity, developing language and literacy across the curriculum, teaching in context, teaching complex thinking, and instructional dialogue. Two other standards were much more common to Native American pedagogy. These were modeling/demonstration/observation and student-directed activity.

Learning Styles and Teaching Practice for Aboriginal Learners

Over the past three decades, a large body of scientific literature has explored the influence of the learning styles that Aboriginal students bring to the classroom (Dehyle & Swisher, 1997; Riding & Rayner, 1998; Butterfield, 1994; Pewewardy, 2002; Ingalls et al., 2006; Hilberg & Tharp, 2002; Whitbeck et al., 2001; Demmert, 2003; Tharp, 2006). Much of this research suggests that particular learning preferences are common amongst Native American students. These learning style tendencies are reported to be: a) a global, holistic approach to organizing information; b) a visual orientation to processing and displaying information; c) benefitting from observation and demonstration of a skill; d) a reflective approach to processing of new information; e) a preference for cooperative rather than competitive or individual approaches to tasks; f) favoring hands-on activities in small groups; and g) intrinsic motivation and self-regulation. These findings have been used by educators to develop a range of approaches to classroom management and instruction suited to these learning modalities.

Learning styles (LS) theory has not met with universal acceptance. One of the difficulties with such generalizations is the lack of homogeneity in indigenous cultures (Whitbeck et al., 2001; Hilberg & Tharp, 2002). There is also considerable debate as to whether learning styles are fixed or malleable

(Hilberg & Tharp, 2002; Rayner & Rider, 1998). Hodgson-Smith (2000) argues that the “LS research does not suggest one universal Aboriginal LS, nor can it be divorced from good pedagogy in which teachers must identify each learner’s preferred LS and choose a teaching style appropriate to the task at hand” (161). Alton-Lee (2003) also reaches the conclusion that good pedagogy trumps assumptions which dictate differential treatment for minority groups, pointing to evidence where inappropriate stereotyping under the guise of a learning styles approach has been detrimental to the academic progress of Maori and Pasifica students and other groups. This view is also expressed by Dilworth & Brown (2001) in their review of teaching and learning in culturally diverse schools:

An understanding of culturally defined learning styles does not provide an easily adaptable model for culturally responsive practice. Aside from the hazard of stereotyping youngsters and avoiding the more critical task of providing for individual differences, teachers may presume that students of certain backgrounds can only learn one way, thus depriving them of a broad repertoire of learning mechanisms (656).

These sharply diverging views of the research can be best mediated through the provision of adequate training and professional development to ensure that teachers of Aboriginal learners acquire a broad repertoire of organizational and instructional pedagogies which can then be adapted as needed to effectively motivate their students and maximize their learning (Demmert, 2001; Battiste, 2002; Ingalls et al., 2006). This concept is very much in line with contemporary learning theory that the teachers’ professional knowledge is anchored in context (Darling-Hammond et al., 2005).

With respect to classroom organization and management, culturally compatible approaches mentioned in the literature include the use of flexible furniture arrangements to permit a range of instructional groupings (McCarty et al., 1991), flexible timetabling (Kilpi, 2008), a disciplinary approach which draws on traditional virtues to encourage positive group norms and self-regulation (Pewewardy, 2002; Ingalls et al., 2006), prominent display and use of culturally relevant materials (Kanu, 2005; Pewewardy, 2002; Ingalls et al., 2006) and a relaxed but productive environment which maintains a focus on learning goals (Bell, 2004).

Keeping in mind the principle articulated by Alton-Lee (2003) that instructional practices should always be designed to match the desired learning outcomes for a given activity, the following approaches found in the literature are thought to maximize learning experiences for Aboriginal students:

- Hands-on experiences, games, technology, and other non-passive forms of learning (Kilpi, 2008; Lie, 2003; Ingalls et al., 2006; NSW Board of Education, 2000; Battiste, 2002; Kanu 2006).
- Cooperative approaches, including peer tutoring, which develop teamwork and pride in group accomplishment (McCarty et al., 1991; Pewewardy, 2002; Ingalls et al., 2006; Demmert, 2001).
- Place and land-based inquiry which taps local knowledge and resources (Fulford, 2007; Lie, 2003)
- Story-telling and drama, which develop oral, written and listening skills as well as empathy and personal affirmation (Maclean & Wason-Ellam, 2006; Pewewardy, 2002; Battiste, 2002; Kanu, 2005)
- The involvement of elders, community and family members in instruction (Pewewardy, 2002; Kanu, 2005; Perry & Howard, 2007).
- Holistic strategies which emphasize the whole before the parts (Pewewardy, 2002; Ingalls et al., 2006)

- Opportunities for expressing knowledge visually through pictures, diagrams, maps, etc. (Ingalls et al., 2006; Pewewardy, 2002;
- Demonstrations, modeling, and examples from native culture which can scaffold learning of new content and skills (Pewewardy, 2002; Ingalls et al., 2006; Kanu, 2005; August et al., 2006)
- Reflection and dialogue; longer wait times before response and small discussion circles encourage engagement with new concepts (Ingalls et al., 2006; McCarty et al., 1991).
- Multiple means of assessment which allow learners different ways to demonstrate what they know (Pewewardy, 2002; Alton-Lee, 2003).

The research also indicates that good instruction does not look the same for each subject. The principles for quality teaching are exercised in different ways specific to particular curricula and learning outcomes, and thus teachers must master both subject content knowledge *and* pedagogical content knowledge in the various domains (Alton-Lee, 2003; Darling-Hammond et al., 2005). Space in this brief overview did not permit a review of the curriculum-specific pedagogical literature in relation to Aboriginal learners.

Teacher Education, Development and Support

There is a worldwide shortage of teachers with the language and pedagogical expertise required for working with Aboriginal learners. In Canada this is especially the case on reserves and in northern and more remote communities, where teachers choose less often to teach and attrition rates are high (O'Sullivan & Goosney, 2007; Lie, 2003; ITK, 2008; Fulford, 2007; NWT, 2005). The demand is greatest for secondary teachers and those fluent in indigenous languages (Fulford, 2007; ITK, 2008; Philips, 2008; McIvor, 2005; Ignace et al., 2005). This shortage is most acute in Nunavut, where legislation requires all children receive bilingual instruction, creating an unprecedented demand for Inuktitut speaking teachers (ITK, 2008).

The growing numbers of Aboriginal children entering the school system suggest the need for exemplary practices in the recruitment and preparation of new teachers to work with this cohort, as well as the necessary support and development throughout their careers.

Initial Teacher Preparation

Teachers in Canada receive their initial training and certification in approximately 56 universities which graduate some 18,000 potential new teachers per year (Crocker & Dibbon, 2008). At least 15 universities have established Aboriginal teacher education programs in recent years; but as yet no systematic research has been conducted on their size, curricula and efficacy (Crocker & Dibbon, 2008).

The development of such programs is based on the desire to attract Aboriginal educators into the profession (Northwest Territories, 2005; Nunavut, 2004; ITK, 2008) and the recognition that most non-indigenous educators have limited understanding of and qualifications for working with Aboriginal learners (Commonwealth of Australia, 2007b). Lessons from Australia suggest that educators require specialized exposure to structured, articulated and accredited training to acquire these deeper understandings necessary to be effective (Commonwealth of Australia, 2007b).

Among the earliest programs in Canada designed for Aboriginal teachers was the Indian Teacher Education Program (ITEP) established in 1972 at the University of Saskatchewan at the request of Native Indian organizations. ITEP further evolved in 1977 to provide specialized services through the Northern Teacher Education Program (NORTEP) and the Urban Native Teacher Education (SUNTEP) in 1980. The majority of participants in these programs are female (80%), slightly older than average, and from lower SES backgrounds; about one third are single moms (Relland, 2007). Among the distinguishing features of Aboriginal teacher education programs are the use of heritage languages, traditional teaching practices and ways of knowing, elder involvement, spirituality, and an emphasis on values such as commitment to community, integration of functions, and local involvement (Relland, 2007; Archibald et al., 2005). Brandon University's community-based Northern Teacher Education program (BUNTEP) also offers a more specialized program for First Nation school support staff. The Program for the Education of Native Teachers (PENT) enables candidates to complete their professional training in the community in conjunction with their paraprofessional assignments (Brandon University website).

Due to the pressing need for qualified teachers in heritage languages, efforts to fast track certification of native speakers are emerging. One such program is a 90-credit program in BC, which provides a Developmental Standard Term Certificate in First Nations Languages which can ladder into a B. Ed. (FNESC, 2008). By way of comparison, the 4-year degree teacher education program at Norway's Sámi College is delivered in the Sámi language, thus ensuring a "culturally and linguistically appropriate" form of pedagogical training (Corson, 1996, p 99). It is believed essential that language teachers be trained in pedagogical techniques; it is not sufficient merely to be a fluent speaker (May et al. 2004; O'Sullivan & Goosney, 2007).

The need to better prepare candidates in mainstream teacher education programs to work with Aboriginal learners is also emphasized as paramount in the recent literature and policy direction (Ontario Ministry of Education, 2007a; CMEC, 2008; McGowan, 2008). The discussion emphasizes two important themes. One is the need for training in specialized pedagogy (O'Sullivan & Goosney, 2007; Ingalls, et al., 2006; Tharp, 2006; Bishop, Berryman & Richardson, 2001; Alton-Lee, 2003; Capello & Tupper, 2006). The second theme is the need for increased cultural competency in the classroom (Archibald et al., 2005; Kanu, 2006; Kelting-Gibson, 2006; Gunn & Pomohac, 2009; Barker, 2008; Berger & Epp, 2006; Battiste, 2002.) Some, such as Cherubini & Hodson (2008) and Witt (2005/2006), argue that add-on approaches to mainstream training programs are usually relegated to the margins of coursework experience and thus destined to be ineffective. At best, they can be expected to raise awareness and give pre-service teachers the tools to further investigate how to incorporate the unique needs of FNMI students into their teaching.

The importance of high quality training is underscored by the literature that confirms teachers of vulnerable and minority learners require competence in a broad range of instructional skills and strategies (International Reading Association, 2003; Lewis, 2006; Haycock, 2006; Darling-Hammond, et al, 2005; National Association of Teachers of English, 2006) as well as cross-cultural competency. Meeting the growing demand for teachers equipped to succeed in Aboriginal classrooms may require customized approaches to teacher development such as pre-service placements in settings that prepare them to meet diverse cultural and linguistic needs, apprenticeships, and systematic mentoring programs, as well as new recruitment strategies (Berry & Hirsch, 2005).

Some promising practices to address the shortage and training of Aboriginal teachers include:

- Recruitment and training of teacher candidates in northern and remote communities through locally delivered teacher education programs (O'Sullivan & Goosney, 2007)

- The recent development of a national framework for Aboriginal teacher education which will establish mechanisms to recruit more Aboriginal teachers, and initiatives in mainstream education to better prepare new teachers to work with Aboriginal learners (Council of Ministers of Education, 2008).
- The establishment by some provinces and territories of measurable targets and associated funding for increasing the number of Aboriginal teachers. The Northwest Territories, for example, has set goals for increasing Aboriginal teachers at junior and secondary levels, and the increasing the overall percentage of Aboriginal educators in the system from 14% to 50% (NWT, 2005).
- Recognition by the Ontario College of Teachers of specialist or specialist honours category under Additional Qualifications for teachers who complete additional course work in Native Studies and Languages (OCT, 2009).
- Outreach activities by such organizations as the Aboriginal Teacher Education Consortium established to increase the number of Aboriginal teachers working in BC (FNESC, 2007).

Teacher Induction and Mentoring Programs

Canadian surveys of new teachers point to the need for greater support for teachers at the beginning of their careers (Crocker & Dibbon, 2008; Archibald et al., 2005). Although this practice is strongly supported in the literature, few jurisdictions have established formal induction and mentoring programs (Crocker & Dibbon, 2008). As a result, novice teachers assigned to schools serving Aboriginal learners generally receive little systematic assistance with the daunting challenges they face. This problem is exacerbated in rural and remote regions due to the lack of infrastructure for providing professional support.

The research tells us that 20% of teachers leave the profession in their first three years, and that teachers in challenging settings are almost twice as likely to leave as those in mainstream schools (NWT, 2008; Hirsch, Koppich & Knapp, 2001; Ingersoll, 2003). It also provides strong evidence that teacher effectiveness and retention are improved by programs offering systematic mentoring support for novice teachers (National Commission on Teaching and America's Future, 1996; Berry & Hirsch, 2005; Darling-Hammond, 1999; McKinsey & Co., 2007). A survey of Aboriginal educators in BC revealed a need for mentoring networks to reduce teacher attrition (Archibald et al., 2005).

In this regard, noteworthy practices include:

- The Northwest Territories Teacher Induction Program for all first year teachers. This comprehensive program has four phases: Pre-orientation (information about the assignment, school and community, pairing with a mentor); Orientation (a 6-week orientation to the community, languages and culture, professional regional and local workshops and mentoring activities); Sustained Support (ongoing mentoring through the school year); and Professional Development supported by the school (NWT Teacher Induction Program, 2009).
- Ontario's New Teacher Induction Program (NTIP) consisting of orientation, mentoring by experienced teachers and professional development over a minimum of one year, linked to performance appraisals. (Ontario Ministry of Education).
- New Zealand's 2-year mentoring program for all new teachers including Maori schools and Pacifica schools (New Zealand Teacher Council).

- The Pedagogical Supervisor program of the Northland School Division in northern Alberta, which provides regular itinerant on site support to teachers in rural and remote schools, with special attention to novice teachers (Bell, 2004; Northland School Division).

Professional Development

Professional development provides teachers with opportunities for professional growth and acquisition of new strategies, skills and understandings for working successfully with Aboriginal learners. The most effective form of professional development occurs in 'learning communities' formed within the school to collectively address common issues of practice (Elmore, 2007; Lewis 2006). Dufour (2007) cites abundant evidence that student achievement rises when teachers work in collaborative teams to achieve specific goals linked to student learning, goals for which they are mutually accountable. For struggling and low-performing schools, intensive training provided by an external support team, including side by side modeling and coaching in the classroom, has been shown to have powerful effects on teacher efficacy and student achievement. This is best illustrated in the Ontario Turnaround Team Program.

Action research is third form of professional development, in which teachers "identify a meaningful problem with their practice, take responsibility for resolving it and therefore become directors of their own professional growth" (Wideman (2002, 21). This process of learning through classroom-based inquiry appears to build teacher sense of efficacy (Lewis, 2006, 2007; Earle & Lee, 2000; Schmoker, 2001, 2006; Reeves, 2006; Danielson, 2006). Researchers who evaluate action research programs like the Alberta Initiative for School Improvement and Australia's Targetted Learning find they are helping classroom teachers learn more effective ways to work with Aboriginal learners (Gunn & Pomohac, 2008; Targetted Learning, 2008).

Noteworthy examples of practices to promote professional development in schools working with Aboriginal learners include:

- The First Nations Student Success Program – an action research program for First Nations schools (Indian and Northern Affairs Canada, 2008b).
- The formation of Aboriginal Education teams in New South Wales schools (Board of Education, NSW, 2000).
- Ontario Turnaround Team Program (See Mount Carmel Elementary case study in Fulford, 2007).
- Specialist associations such as the Aboriginal Circle of Educators in Manitoba to support Aboriginal educators.
- The use of video conferencing for professional development for teachers in remote areas.

Teacher Supports and Resources

Good teaching is also enabled by the availability of instructional resources and support from a variety of other staff in the school or district authority. Over the past decades, many have drawn attention to the lack of resources to support teachers who work with Aboriginal students (Royal Commission on Aboriginal Peoples, 1996; Fulford, 2007; Carr-Stewart, 2006; Assembly of First Nations, 2005). For virtually all subjects and levels there is a dearth of authentic culturally relevant teaching resources both print and media, and little central coordination in the production and sharing of new materials. Resourcing deficiencies are particularly pronounced in two areas: special education and native language programs (Fulford, 2007).

Some examples of promising practices in meeting resource needs are listed here:

- A Principal/Director of Aboriginal Education, whose role it is to coordinate, enable and monitor outcomes of programs and services for Aboriginal learners across schools.
- The use of mobile language labs to enrich language programs in rural/remote schools in BC (FNSCA, 2007).
- The School-Community Coordinator, who coordinates auxiliary services and programs in community schools and serves as a vital link with the Aboriginal community (Philips, 2008).
- Collaborations with universities to develop needed curriculum resources (ie., the Aboriginal Knowledge and Science Education Research Project, University of Victoria to enable the development of culturally appropriate science curriculum materials and programs for Aboriginal students).
- District or regional resource centres which develop, catalogue and share authentic language and cultural teaching materials.
- The development of online resources which can be accessed from anywhere.
- Aboriginal Curriculum guides in many subject areas.
- Elders in the Schools Programs in Alberta, Yukon; certification of Elders in Nunavut.
- Access to a wide spectrum of FNMI professional resources to build school and classroom collections of curricular support material provided to 17 pilot schools in Alberta's FNMI Learning Environment Project (Alberta Education, 2007).

School Leadership and Programming

The research is unequivocal that leadership quality is central to school effectiveness and student achievement (Gonzalez, 2002; Teddlie & Reynolds, 2000; Fullan, 2003; Barth 2002). It is not surprising then, that leadership was identified as the dominant success factor in studies of Aboriginal schooling (Bell, 2004; Fulford, 2007; Phillips, 2008). This section briefly examines the research on school leadership and programming to promote the success of Aboriginal learners.

The Principal

The role of the principal is highly complex, requiring a blend of leadership and management skills, a deep knowledge of curriculum and instruction, and a commitment to educational success for all students. As Sparks and Hirsh (2000) observe:

Not only must school leaders perform the tasks of organizing, budgeting, managing, and dealing with disruptions inside and outside the system, today's instructional leaders must be able to coach, teach, and develop the teachers in their schools. They must be steeped in curriculum, instruction, and assessment in order to supervise a continuous improvement process that measures progress in raising student performance. They must build learning communities within their schools and engage the broader school community in creating and achieving a compelling vision for their schools.

Cotton's (2003) synthesis of the research on the influence of the principal found that their leadership traits and behaviors are positively related to student achievement, attitudes, and social behavior. Principals of high-achieving schools are effective in the following areas, among others: safe and orderly school environment; goals focused on high levels of student learning; high expectations of students; self-confidence, responsibility, and perseverance; visibility and accessibility; positive and

supportive school climate; communication and interaction; interpersonal support; community outreach and involvement; rituals, ceremonies, and other symbolic actions; shared leadership and staff empowerment; instructional leadership; and norm of continuous improvement.

Principals of schools with many Aboriginal learners often have special challenges and fewer resources to meet these needs. They are likely to have more children with learning difficulties, poor attendance and health problems; more beginning teachers and higher staff turnover; and more families who are unable to give their children the support they need for learning. For principals who work in First Nations schools, the infrastructure and support services available to their colleagues in the public system are frequently lacking. Despite these obstacles, research demonstrates that skilled and committed leadership has powerful and positive impacts on school progress. Phillips (2008), who examined six community schools in Manitoba and Saskatchewan, in settings ranging from northern or rural to inner-city, all with high populations of Aboriginal children, noted:

In each of the community schools studied, the leadership and vision of the principal was identified as a major factor contributing to the school's success. This is consistent with the school effectiveness literature. More than any other position in the school, the principal has the greatest capacity to engender educational change and to facilitate the full implementation of the principles and practices of community education... Although there were differences in leadership styles, each principal modeled that all children can learn, that all families have worth, and that their school would do whatever it took to assist students at-risk (Phillips, 2008, p 121)

Among the leadership practices found in the research to be most effective in Aboriginal settings are:

Create a secure and welcoming school climate. Schools must be warm and inviting places characterized by caring and respect among staff, students, parents and community members. The principals' actions and policies facilitate this in many ways: an open door, Aboriginal Parents room, morning assemblies for parents and students, elders' photo gallery in the foyer, positive calls, etc. Relationships are the foundation for learning.

Ground the curriculum and programs in Aboriginal culture. For Aboriginal students and their families, it is very important that their culture is reflected in a variety of ways in the school. The principal ensures that the staff celebrates the traditions of their families and incorporates culturally familiar material in which Aboriginal values are embedded into the curriculum and ethos of the school. The traditional transmission of knowledge through Elders is not merely acknowledged but incorporated in their day-to-day operations (Phillips, 2008).

Involve parents and community in school decisions. The principal works vigorously to inspire parent/community involvement through formal and informal mechanisms. Parents and community members are represented in the school's leadership structures and their perspectives sought and utilized (Spraker, 2002). Where parents have not traditionally played an active role in the education of their children, the school focuses on building capacity to enable meaningful participation (Saskatchewan Education, 2003; Alberta Education, 2008).

Provide multiple programs and supports for learners and families. Achievement in high-needs schools improves when principals tackle barriers to learning by introducing services that are necessary pre-conditions to academic progress (Phillips, 2008; McDougall et al., 2006; Fulford, 2007).

Hold high expectations for students and staff. Many researchers highlight the importance of the principal's instructional leadership and high expectations for staff and students (Wang et. al., 1999; Cotton, 2003). According to Barth (2002) the most important job of school leaders is to change the

prevailing culture of the school when historically transmitted norms, attitudes, beliefs, behaviours, and traditions interfere with school improvement. This requires the will and the skill to challenge excuses and ineffective practices and transform the culture into a force that promotes learning for adults and students

Link assessment to instructional and planning decisions. The principal creates an environment where data is seen as an invaluable tool for planning classroom instruction, determining priority actions and resources, and monitoring progress towards learning goals. The principal takes a leadership role in involving staff and school partners in the development of the school improvement plan and in reporting to the community.

Leadership Structures and Support

A wide range of leadership structures can be found in FNMI schools. While the conventional principal/vice principal model is most common, other innovative models have developed based on school needs, leadership strengths, and board policies. Corson (1996) describes an egalitarian model in Norway's Sámi schools where three co-administrators, equal in status, are responsible respectively for staffing, students, and curriculum/pedagogy. Due in part to Canada's shortage of principals of FNMI heritage, an Aboriginal/non-Aboriginal co-principal arrangement may be used, with spheres of responsibility divided into teaching/learning and community/programs. This model appears to be especially useful in community schools with their extensive ancillary programming, and in schools where the mainstream language and culture is a barrier to parental engagement (Phillips, 2008; Fulford, 2007). A third leadership model found in northern Quebec's Cree School Board makes a Community Education Administrator (CEA) responsible for operations, housing, physical plant, supervision of non-teaching staff and community relations, while the school-based administrator focuses on pedagogy and professional staff. The CEA position, usually filled by a non-educator member of the community, was designed to address the need for administrative continuity in isolated schools with high principal turnover. A recent evaluation of the Cree School Board was critical of this splitting of authority and recommended a change in policy to make principals the sole point of accountability for the school (Cree School Board, 2008).

In the *Sharing Our Success* schools, formal or informal leadership teams commonly worked closely with administrators. These took many forms and included numerous stakeholders at various levels of school operations. The administration at Wapanohk Community School, for example, consulted extensively with the Staff Leadership Team, Integrated Services Committee, Parent Council, and the School Community Connector (Fulford, 2007). Likewise, the community schools in Phillip's study demonstrated "innovative and pragmatic approaches to collaborative leadership in order to facilitate their extended mandate" (Phillips, p 121). This shared leadership is thought to be highly compatible with the traditional Aboriginal concept of leadership which depends upon ability to persuade and generate consensus. It also corresponds with current educational theory that leaders who foster collaborative decision-making and collective responsibility for the progress of the school unleash greater capacity for improvement than the top-down leader (Barth, 2002; Fullan, 2003; Elmore, 2000; Dufour, 2007).

There is a paucity of evidence about formal training and support for principals in Aboriginal settings. Many of the schools studied, both band and public, benefited from strong leadership and professional support at the board level. Two comprehensive leadership handbooks for principals in First Nations schools were found, produced by the FN umbrella organization for the provinces of BC and Nova Scotia (Kavanagh, 2006; Mi'kmaq Kina'matnewey, 2007). In Australia, the federal government established the *Dare to Lead* project in 2000 to provide professional support for

Australian administrators working in indigenous schools. *Dare to Lead* currently provides 2,900 principal members with information and best practice research, workshops and conferences, and training support through regional networks led by experienced principals who identify professional development needs. A website search did not find anything similar available for Canadian principals in FNMI schools. New Zealand's *Maori Education Strategy, 2008-2012* asserts the need for "professional leaders to share expertise and work together" and a "sharper focus for professional leaders on effective teaching and learning that lifts Maori student achievement" (NZ, 2008c p.28).

School Programming

Essentially, effective programming for Aboriginal students must attempt to reach the whole child. That is, schools must be aware of and respond to needs that include not only the intellectual and academic, but also the physical and sociological needs that may be present due to isolation, poverty, or dysfunctional families. The schools in this study and their staffs have an amazing flexibility – not just in adapting programs and instructional methods to meet individual needs, but in providing a supportively structured environment and counselling, nurturing and parenting as required. Their effectiveness derives in large part from their ability to relate holistically with their students — to feed them if they are hungry, counsel and support them if they are addicted — in short, to acknowledge and deal with their present circumstances while helping them to prepare for a brighter future through education. (Bell, 2004, p. 310)

A mapping and analysis of the 90 success factors identified across the 20 *Sharing Our Success* schools, revealed programming to be one of the strongest factors, increasing in influence in the 2007 schools to rank immediately behind leadership in contributing to student success (Fulford, 2007). Likewise, a set of 17 Alberta schools demonstrating progress for FNMI learners was characterized by a willingness to adapt school routines and enrich programming to meet student needs and make them successful (Alberta Education, 2007).

Bell and Fulford observed that all schools in the *Sharing Our Success* study operated a wide range of supports for students. Their leadership was proactive in seeking solutions, and entrepreneurial in finding partners to enable them to offer an impressive array of programs and additional services to support both learners and families. Their teachers believed in students' potential to learn, while providing multiple levels of support in a holistic manner to meet their social, emotional, spiritual and physical needs. They were proactive in addressing issues of attendance, behaviour and well-being, which are pre-conditions for learning, and understood the necessity for flexible programming to address individual needs. The augmented programming implemented by the schools was very diverse, but could largely be classified into four categories: a) curriculum and pedagogy b) cultural programs c) relational activities and d) organizational (uses of time, space, resources). While the band-operated schools in the 2004 set were inherently more flexible in their mandate than the provincial schools, and thus better able to integrate various initiatives creating a more seamless set of programs from daycare to post-secondary and adult education training (Bell, 2004), this distinction had narrowed in the second set of case studies three years later. Regulatory and policy shifts had now enabled provincial schools to offer equally holistic environments and extended programming as result of government initiatives to target at-risk populations through early childhood interventions, alternative learning centres, and community schooling.

The most comprehensive form of programming is the community school, which necessitates dramatic shifts in the culture, relations, and organization of the school, and as such makes large demands on administration and staff. As community school programs under various names are being

implemented in at least five provinces and considered as a strategy for increasing the success of Aboriginal learners, a brief summary of the salient evidence is provided here.

Community Schools

Schools in disadvantaged communities must overcome many social and economic barriers if children are to learn. Community schools are intended to meet this challenge by collaborating with a mosaic of community agencies to integrate social support programs within the school. This service model demands new forms of cooperative and collaborative efforts on the part of educators, human service providers, and community members.

Community schools in the United States date back to the 1930s. Today, the number of community schools is estimated to be between 3,000 and 5,000. Chicago Public Schools is home to the largest initiative, with some 140 community schools established since 2002 (Dryfoos, 2008).

Community schools are found in five Canadian provinces under various names and their level of intensity varies. In British Columbia, they are presently called Community^{LINK} schools and the exact number is not known. In 2007/08, provincial funding of \$45.8 million assisted schools in 60 districts to provide breakfast and lunch programs, inner-city programs, school-based support workers and counselling for vulnerable students. Saskatchewan's School^{PLUS} program was introduced in 1994. In 2007/08, there were 98 designated community school sites serving approximately 20% of the students in provincially funded schools. Manitoba introduced its Community Schools Partnership Initiative (CSPI) in 2004/05. In 2007/08, funding was provided to 20 schools in 13 divisions by Manitoba Education Citizenship and Youth through the Aboriginal Education Directorate. Quebec has taken steps to transform schools into Community Learning Centres through its Supporting Montreal Schools and FECRE programs. In 2007, the MEQ funded 15 additional Community Learning Centres in Anglophone schools. New Brunswick established 30 community schools in 2007, announcing a goal of having 75 community schools in operation by 2012.

Research Findings

Evaluations of community schools have been challenged by difficulty of isolating effects of combined interventions (Blank, Melaville & Shah, 2005), and documenting the association between participation and outcomes is particularly challenging (Simpkins, 2003). Programs are not uniformly effective; the quality and number of programs, their intensity, participation rates, and school management structures are important variables (Blank, Melaville & Shah, 2005).

Although research has demonstrated many positive benefits of community schools, it has also found student achievement scores are slow to improve. Dryfoos (2008) observes that a school must first undergo a transformative process which often takes a number of years of hard work to become an effective and aligned learning community. Strong leadership is essential. The coordinating role of the principal is critical in creating the relationships and conditions for the introduction and implementation of community-based programs, and there is a concomitant necessity for professional development in these skill-sets (Whalen, 2002; McDougall et al., 2006; Phillips, 2008). The most successful sites also have a full-time coordinator of community services as part of the school management team. The community services coordinator plays a pivotal role, requiring vision, staying power, entrepreneurship, and the ability to coordinate diverse groups and resources and build a common sense of purpose (Blank, 2002; Phillips, 2008).

The Chicago School District Community Schools Initiative, with over 140 schools, is now in its sixth year. An independent evaluation by Blank & Berg (2006), found that 86% of community schools are showing improved academic achievement, compared to 74% of other schools. Whelan's earlier 2002 examination of patterns of participation, best practices, and outcomes for students and families concluded that the initiative is "improving achievement levels, the quality of instruction and the climate for learning and that these effects are strongest in community schools that have been in operation the longest" (cited in Dryfoos, 2008). A synthesis by Blank, Melaville & Shah (2005) of evaluations of 20 multi-site community school initiatives across the US concluded that community school students show "significant and widely evident gains in academic achievement and in essential areas of nonacademic development" (p. 33). Earlier research on 49 community schools, found that 36 reported academic gains in reading and math, 17 reported reductions in negative and risky behaviours, and 12 reported increases in parental involvement and improved family functioning (Dryfoos & Knauer, 2002).

No rigorous evaluations have been done in Canada. Bell (2004) reported positive impacts on Aboriginal learners and their families, based on a case study of Saskatoon's Princess Alexandra Community School. He cited improved significantly improved attendance, achievement, and behaviour, and truancy, and increased student readiness to learn and attention to academics. In 2008, Phillips conducted a study of 6 community schools with high Aboriginal populations in Manitoba and Saskatchewan. The case studies were designed to provide descriptive information on the school's processes related to: program development, governance structures under an integrated services model, partnering agencies, the indicators of success being used, special challenges, and best practices.

Phillip's analysis does not present outcomes, but highlights that the leadership and vision of the principal was identified as a major factor contributing to each school's success, and the Community Connector is essential to the effective functioning of the community school. Threats to the viability of community schools are: poor succession planning for the two key leadership roles; the lack of agencies with which to partner in sparsely populated regions, and the shortage of qualified Aboriginal teachers, language instructors, and principals in all areas. Phillips made a number of recommendations, including the necessity for: increasing the number of qualified Aboriginal administrators, teachers and other personnel employed; flexibly defining the role of the Community School Connector to enable a match between school and context; providing additional support for school leadership; specialized training in community school administration as a prerequisite qualification for administrative positions; adequate infrastructure and a critical mass of service agencies as a precondition of establishment of a community school (Phillips, 2008).

Effective Multi-Agency Partnerships: Putting Every Child Matters into Practice (Cheminais, 2009), is an excellent resource for community school leaders, outlining effective multi-agency practices, processes, and conditions for success and providing practical operational templates that can be adapted for local use. Cheminais emphasizes the importance of clarifying goals, roles and responsibilities, securing commitment at all levels, mutual trust and respect, effective and efficient communication and information sharing, securing sustainable resources, effective planning and organization, strong leadership, continuity of key personnel, and establishing governance and performance monitoring systems.

Assessment, Monitoring and Reporting

Collection and analysis of information on the educational progress of FNMI students plays an important role in efforts to improve their success. This section examines the research on assessment and how this information is used at various levels of the system.

Assessment at the School and Classroom Level

Assessment of student learning takes many forms. Schools and teachers need to understand the purposes and limitations of different types of assessment and be able to utilize and interpret them appropriately in their planning and delivery of instruction and in monitoring student, cohort, and whole-school progress.

Classroom Assessment: Practices

Empowering classroom assessment practice is seen as the key to improving student success (Black et al., 1998; 2004, 2005; Schmoker, 2001, 2006; Reeves, 2004; Popham, 2008). The literature underlines the importance of good diagnostic tools, assessment data to guide instruction, formative assessment to indicate instructional adjustments, and personalized conversations between teachers and students about student work (Lewis, 2006). Teachers need time and support to work together, reflecting on the effects of their assessment practices on student engagement and learning (Black & Wiliam, 2005). Students and parents also need to be involved in understanding and using assessment data, with results presented in a user-friendly and visual manner to facilitate ongoing discussion (Schmoker, 2001). When embedded in daily instruction and used to scaffold learning, formative classroom assessment plays an integral role in raising achievement. According to Australian researchers Alton-Lee (2003) and McNaughton (2002), a teacher's proficiency in the interpretation and use of this data is a key component of quality teaching for diverse learners. This conclusion is supported by Black & Wiliam (1998, 2005), whose review of 250 major studies on the links between assessment and learning found that in order to improve learning, students need effective and personalized feedback from assessment, to be actively involved in their own learning and assessment, and teachers who adjust their teaching based on the results and who use assessment to motivate their students.

Standardized tests are used to obtain measures of student achievement against established standards. Schools may be required to administer these at specific grade levels as part of provincial/territorial assessment programs in core subjects such as literacy and numeracy or diploma examinations at the senior secondary level. Provincial examinations at the lower levels are generally criterion based, providing general information on whether a student meets or exceeds accepted standards of performance. Schools may also elect to administer commercial assessment batteries such as the Canadian Test of Basic Skills to identify student growth in various cognitive domains over the school year. Diagnostic tests and screening tools also have an important function. Commonly administered by specialists, these are used for identifying learning difficulties and designing appropriate interventions for students with special needs. Additionally, teachers in FNMI settings need customized tools for evaluating their students' understanding of language and culture and oral traditions (Kavanagh, 2006).

School-Level Uses of Assessment

The school improvement literature notes the importance of school level data in the improvement process. Provinces such as British Columbia, Alberta, and Ontario encourage this connection by requiring schools to develop annual improvement plans based upon data and report annually to their community on progress and strategies to address gaps. In New Zealand, the gathering and analysis of high-quality student achievement data and the use of externally referenced benchmarks were found to be powerful tools in effecting changes in teacher practice that facilitated gains for Maori learners (Alton-Lee, 2003; Phillips et al., 2001). Sakyi (2005), Earl & Katz (2006) and Schmoker (2001), who documented the practices of hundreds of improving schools in Canada, Britain and the United States, describe them as "data rich", collecting and analyzing information from multiple sources to help them to solve their challenges and plan for improvement. Staff at these schools collectively

review achievement data by subject area to identify performance gaps, design instructional strategies for closing these gaps, and then gather new data to measure the impact of their interventions. A study of 17 Alberta schools demonstrating progress for FNMI learners found them to have established baseline information on multiple indicators (including achievement results, student participation/completion rates, parent and student satisfaction rates, and parental involvement) and corresponding targets for each measure to help determine their level of success (Alberta Education, 2007).

Assessment practices for Aboriginal learners vary widely, influenced by jurisdiction, educational authority, and individual school policy. This continuum was evident in the twenty schools across Canada examined by Fulford (2007) and Bell (2004). All made use of various classroom assessments and diagnostic and screening tools, but their use of formal standardized testing to compare and monitor student performance over time was mixed. A number of band-operated schools, although not required to do so administered provincial assessments. Overall, there were sharp differences among schools with respect to their public reporting of achievement data and other performance indicators such as attendance and dropout rates, although the majority indicated this information was used at the school level for planning purposes (Fulford, 2007).

Cultural Relevancy of Assessments

Defining appropriate indicators and measures for Aboriginal learners is still an emerging area. There is an extensive literature on the validity of standardized assessments for Aboriginal and other children of unique cultural/linguistic backgrounds. The majority of concerns relate to item content bias, language barriers, inability to capture other forms of traditional knowledge, and inequitable learning conditions (Cherubini & Hodson, 2008; Philpott, 2004b; Padilla, 2001; Samunda et al., 1998). In describing a research blueprint for Native American education, Demmert et al. (2006) call for a major focus on the development of new culturally and linguistically appropriate measures calibrated with state assessment systems, as well as instruments that can accurately identify learning disabilities in Native students. The Canadian Council on Learning points out in its *State of Learning in Canada* (CCL, 2008a) "that current indicators need to be broadened to reflect the holistic lifelong nature of Aboriginal learning". Inasmuch as current approaches are oriented to 'measuring deficits' and focus on cognitive rather than experiential/traditional learning, the CCL has undertaken an ambitious project to re-define measures of success for First Nations, Métis and Inuit peoples. Extensive consultations in the project's initial phase led to the development of a unique holistic learning model for each group as a framework for developing new forms of assessment (CCL, 2007) and subsequent efforts to validate and refine the models (AFN, 2008).

Standards for culturally relevant assessment practices have been developed. One example is found in the guidelines adopted by the Assembly of Alaska Native Educators (1999), requiring that teachers:

- *demonstrate the ability to utilize a broad assortment of assessment skills and tools in their teaching that maximize the opportunities for students to demonstrate their competence in a variety of ways applicable to local circumstances, including the involvement of local Elders to pass judgement on knowledge and skills associated with traditional cultural practices.*
- *demonstrate a thorough understanding of the cultural implications of standardized and norm-referenced tests and be able to make appropriate decisions regarding their use for educational and accountability purposes.*
- *consider all forms of intelligence and problem-solving skills in assessing the learning potential of students in their care and provide appropriate opportunities for the educational advancement of all students. (13)*

Spraker (2002) offers a checklist for evaluating assessment practices for Native American students which includes: ensure test alignment with curriculum taught, review for cultural bias, include test items with locally meaningful content, and use various forms of evaluation to accommodate individual and cultural learning styles. In regard to the latter, Kanu (2005) and others note the value of journals and reflective writing, portfolios, observations, and group projects as authentic forms of assessment that may be used in conjunction with quantitative assessments.

System Level Assessment, Monitoring and Reporting

While recognizing the limitations of current assessments, accountability at the system level requires the gathering and reporting of data to monitor the progress of Aboriginal learners, determine which interventions are proving effective, and how best to allocate scarce resources to support their learning needs. This section looks at briefly at some best practices in monitoring and reporting at the national, provincial and local school education authority level.

National Level

Canada presently has no national information system to monitor and report on K12 Aboriginal achievement⁸. However, significant new steps in this direction are being taken on two parallel fronts at the national level.

The Council of Ministers of Education Canada (CMEC) is engaged in an important initiative towards the development of national database for Aboriginal students attending provincial/territorial schools. As part of an action plan prioritizing aboriginal education, and in collaboration with the Canadian Education Statistics Council, the CMEC has committed to “strengthen the capacity of evidenced-based decision making through actions that include: a) establishing an approach to encourage Aboriginal students to self-identify b) coordinating common data and indicator definitions and c) initiating parallel data collection procedures” (Education Policy Institute, 2008, p 6). This is expected to provide the CMEC with “the ability to develop and report reliable sets of pan-Canadian Aboriginal education indicators based on common data elements across all jurisdictions. Regularly reported indicators will help to inform the public and ministries/departments of education on how success is being achieved” (CMEC, 2008, p3).

Indian and Northern Affairs Canada (INAC) is responsible for the education of on-reserve students, but the authority for management of these schools has been devolved to individual First Nations authorities. In perceiving its role primarily as ‘enabler’, INAC developed a monitoring system which was based on First Nations’ compliance with funding agreements rather than on educational outcomes (Mendelson, 2008; Auditor General, 2004). As a result, INAC lacks the infrastructure necessary to collect sufficient information on program outcomes to enable reporting on a system-wide basis or to inform planning and evaluation of its program spending. The recently announced *Reforming First Nation Education Initiative* signals an important shift. In introducing a new proposal driven program that targets measurable improvements in literacy and numeracy and student

⁸ By way of comparison, New Zealand and Australia annually collect comparative educational data for Indigenous and non-Indigenous students. This is reported at the national level as well as state-level, in the case of Australia. A detailed *Schools Performance Indicator Handbook* sets out the 24 indicators on which Australian schools are required to report annually. This includes information on the diversity levels of staff and school committees, as well as student achievement. Norway has only recently introduced national assessments which will be administered to Sámi students in their language, and public reporting processes and use of this data remain to be seen.

retention, INAC has linked funding to results. Schools applying for funding under the *Student Success Program (FNSSP)* are required to develop a comprehensive three-year school success plan, including selecting and administering assessments to identify and monitor areas for improvement (participating in provincial assessments at a minimum), and establishing a comprehensive data management system. The objective of *FNSSP* is to “support the ability of First Nation schools to monitor the progress of students, manage schools and program-related information, and make it easier to gather, analyse and report on financial and performance indicators” (INAC, 2008b). Through this program, data driven planning and reporting for school improvement may in time become the norm for the band-operated system and for INAC.

For band operated schools, the First Nations Schools Association (FNSA) in British Columbia provides an exemplary model of data collection and reporting at the system level. The FNSA is committed to promoting First Nations control of education and supporting the development of quality and culturally appropriate education for First Nations students. Since 2004, the FNSA has conducted annual surveys of schools, students and parents. This School Measures and Data Collection Project was a response to needs expressed by First Nations schools for data to track school effectiveness and demonstrate the quality of their programming. Through research and consultation, a set of standards was developed by and for BC First Nations schools. *The Fourth Annual School Measures Report* (2008) presents the results of the latest survey with comparatives for previous years. It contains information on school governance, First Nations staff, language and cultural programs, administrative time, parental involvement and communications, early literacy initiatives, student support programs, counselling services, attendance and lateness, graduation numbers, the percentage of students performing at grade level in reading and math, student and parent perceptions of quality, and community partnerships. The information is used: to identify areas of strength, determine areas requiring greater support and resources, and highlight best practices for information sharing purposes.

Provincial/Territorial Level

The provinces exhibit a range of approaches to evaluating and reporting on the progress of Aboriginal learners. All jurisdictions except PEI administer annual province-wide assessments aligned with the mandated curriculum at key stages of the K-12 system. Some jurisdictions report these results only at the aggregate level, but the majority also report student performance at the district and school level. This is often expressed in terms of numbers of students not meeting, meeting, or exceeding expectations. The data are commonly reported in comparison with previous years (3-5) in order that performance trends may be more clearly seen.

As result of their agreement on an Action Plan for Aboriginal Education, most jurisdictions⁹ have intensified efforts to identify their Aboriginal cohort through individually determined mechanisms. Seven jurisdictions now disaggregate provincial achievement test results to report data for the Aboriginal cohort that has been identified (Educational Policy Institute, 2008). Only BC and Alberta report Aboriginal achievement data at the school and district level. A few Ontario districts with formal Aboriginal identification policies in place may receive this information on request (Lakehead Public Schools, 2009).

As well as achievement data, some provinces gather other information about Aboriginal learners in their systems. This information is usually presented within an annual report on the school system which provides comparative statistics for the Aboriginal cohort and the larger student population.

⁹ with the exception of PEI, New Brunswick, and Quebec who have no plans to do so (EPI, 2008), and BC which has a system in place

The *Saskatchewan Education Indicators Report* (2008) for example, includes statistical breakdowns for Aboriginal students on the following indicators: enrolments by grade level, school type and region, registration in heritage language programs, transitions at Grade 9 and 10, retention and completion, graduation rates, provincial credits, on-reserve enrolment by school type, percentages achieving various proficiency standards on provincial assessments in reading, writing and mathematics, and average marks for senior level courses. Non-student indicators include percentages of Aboriginal staff in the workforce and population demographics. Conversely, in Ontario, "Aboriginal student specific data is not available on enrolment, EQAO results, graduation and dropout rates" (Ontario, 2007a, p 31).

BC has the most complete and well-established student information system, and has disaggregated Aboriginal achievement data at all levels since 2000. This has been accomplished through assigning all pupils an electronic Personal Education Number (PEN), which enables the collection of up to 300 data elements annually for each student in school system, regardless of mobility within the province¹⁰ (Doddall, 2007). Analysis of this data is used to produce *How Are We Doing?*, an annual report which presents an overview of Aboriginal attainment on provincial assessments at Grades 4, 7 and 10 as well as diploma exams; enrolment, transition, school completion and graduation rates; special education data; and parent, student and staff satisfaction rates. Customized datasets provided to each school district form the basis for a provincial accountability framework with four pillars directly linked to Aboriginal education:

- a) *School Planning Councils* utilize the Aboriginal student performance data provided to them to identify targets and strategies for improvement and incorporate this into their annual improvement plan. School boards must approve these plans which then become an integral part of the school district's Accountability Contract.
- b) *Accountability Contracts* between each school district and the Ministry must explicitly describe the connections between the district's schools plans and use of resources to the Aboriginal Education Enhancement Agreement.
- c) *Aboriginal Education Enhancement Agreements* (EA) concluded among school boards, their Aboriginal communities and the Ministry of Education. This partnership involves dialogue to jointly identify targets and strategies to meet needs of Aboriginal learners and determine data that will be used to measure and monitor each goal.
- d) *District Reviews* conducted triennially by external teams who review the achievement data, district accountability contracts, school improvement plans, Aboriginal performance data and evidence of collaboration with Aboriginal stakeholders. A public report is provided to the Board and the Minister with specific recommendations about improving student achievement in the district which must be incorporated into School Growth Plans and Accountability Contracts (Doddall, 2007).

Some provinces have created multi-year action plans for the improvement of Aboriginal education, articulating their goals, strategies and performance measures by which they can be held accountable (Manitoba Education Citizenship and Youth, 2007b; Alberta Education, 2008b; Northwest Territories, 2005; Nunavut Government, 2004; Ontario Ministry of Education, 2007a). Most plans were developed in consultation with Aboriginal stakeholder groups and in so doing, have engendered

¹⁰ The richness of BC's database also enables external research to contribute further insights on Aboriginal education practices (Cowley & Easton, 2006; Richards, 2006, 2008; Mendelson, 2008). For example, an analysis of the performance and socioeconomic data by Richards et al. (2008) concluded that some school districts are more effective than others at raising Aboriginal achievement, leading to the hypothesis that district-level effects are a significant factor.

new forms and levels of collaboration. Depending upon the timeframe, progress reports which describe actions taken toward each goal and the results to date have been issued.

Ontario's MISA (Managing Information for Student Achievement) is a noteworthy provincial initiative designed to develop the capacity of school boards to work with assessment data in support of student achievement. In recognition that the expertise required to interpret system-based data and how it relates to policies and practices at the classroom, school, and district level is costly and in short supply (O'Sullivan & Goosney, 2007), Ontario has established seven networked MISA Centres across the province to support the efforts of individual boards and schools to use data effectively in their decision-making.

School District and Band Authorities

Richards et al. (2008) identified attention to data collection to guide programming for Aboriginal students as a distinguishing feature of the most successful BC school districts in terms of Aboriginal achievement. These ten districts were found to be "more systematic in monitoring a broader spectrum of performance measures such as attendance and use this exercise to push for district-wide and school-based improvements," and were "more willing than others to evaluate programs using assessment data and to create new data aimed at measuring specific dimensions of student performance" (16).

During this literature review, school district reports on Aboriginal education from various provinces were gathered to identify promising practices related to assessment, monitoring and reporting. A smaller number of band authorities were contacted in this regard as well. While space does not permit in-depth coverage of these findings, several observations can be made:

1. School authorities are using assessment data to inform their interventions and professional development programs, as confirmed by Manitoba Education's most recent Annual Report:

Divisions reported that they are using Grade 3 data to plan professional development and give direction to projects funded by literacy and numeracy grants. (Manitoba Citizenship and Youth, 2008, 32)

2. Although the practice of identifying areas for improvement is common, few¹¹ boards specified measurable goals by which to gauge success. Note the contrast in these goal statements:

District A: *Significant increase in the achievement of First Nations, Métis and Inuit students*

District B: *Improved achievement of self-identified Aboriginal students as measured by EQAO Primary and Junior Reading, Writing, Grade 9 Mathematics, and OSSLT assessments by 10% over 2007/08.*

3. Districts/authorities which have school-by-school and grade level performance evidence from provincial and internal assessments have a starting point to begin to see what's working and why. They consider both district and school effects to form action plans based on this information.

¹¹ BC Districts are an exception, as they are required by Accountability Contracts and Aboriginal Enhancement Agreements to specify targets for each indicator based on current and previous data.

Nechako Lakes School District, Report on Aboriginal Education 2007-08 (22.)

Issue: The low numbers of Grade 1 students able to read at target level 15 (PM Benchmarks) is concerning, especially for Aboriginal students.

Analysis: As the district has learned through the use of other formative assessments, once teachers' awareness of specific reading skill needs for each student develops, they are more able to begin targeting needs identified by the test.

District Actions:

- *Provide funds and structures to support Grade 1 collaborative teacher learning teams to address needs on the Kindergarten assessment as students enter Grade 1*
- *Continue funding CUPE early intervention workers for Grade 1 in each school*
- *Provide continued support from the Literacy Coordinator to build teacher capacity with running records*
- *Continue to share the cost of purchasing leveled readers for schools where needed*
- *Support schools implementing the Glenview peer coaching model for teaching reading skills*

4. Few boards are carrying out even rudimentary research to monitor the effects of their interventions. Many described significant investments in multiple initiatives over the past few years that were believed to be contributing to improved instruction for Aboriginal students. The almost universal response to request for evidence about specific program success was that none had been gathered to this point.

5. External evaluations such as that commissioned by the Cree School Board represent an important accountability measure (Cree School Board, 2008). It is often easier for an external review to acknowledge when programs are not effective in meeting students' needs; this can serve as a catalyst for new directions to benefit learners.

6. Support for school improvement planning is needed. While best practice urges data-driven instructional decisions and interventions, many schools are unfamiliar with these processes or implement them unevenly. District/band authorities and provincial or federal governments can provide the resources for time and training for school staff to collectively review needs and develop, implement and monitor an improvement plan. Examples found of deliberate structures to support formal data-based improvement planning in schools include:

- The School Improvement Project – Manitoba First Nation Education Resource Centre
- Alberta Initiative for School Achievement (AIS) program – Alberta Education
- FN School Success Plans – Indian and Northern Affairs Canada
- School Planning Councils- BC
- Student Success Initiative- Northwest Territories

Governance and Capacity Building

Across Canada, educational partnerships, innovative governance arrangements, and educational innovations are beginning to change the formal education environment for First Nations students and subsequently to address and reflect the individual needs and aspirations of First Nations communities (Carr-Stewart, 2006, 1013).

This section examines promising innovative governance models and practices in Aboriginal education at various levels of the system.

Local Governance

Provincial schools are run by elected school boards who are accountable to the provincial government who funds them. First Nation schools on reserves are operated by band councils who receive their funding from and are accountable to the federal government through Indian and Northern Affairs Canada. Through consolidation in recent years, most provincial school districts, especially those in urban areas, administer many schools and have established a large infrastructure to support the delivery of educational services. Hence, they are often called 'school systems'. Many reserve schools are small and operate as a single unit and lack comparable infrastructure funding and services. These distinctions imply of necessity quite different governance structures which have been well discussed in the general literature (Richards, 2008; Carr-Stewart, 2006; Mendelson, 2008; Papillon, 2008; McCue, 2006). Before examining some best practices in local school governance, this section highlights four innovative governance models from the First Nations sector.

Innovative Governance Models

The most dramatic of these is the First Nations Jurisdiction over Education Act which came into force in December 2006.

First Nations Jurisdiction over Education Agreement

Bill C-34 is an historic agreement between the Government of Canada and a number of First Nations in British Columbia. The Act sets out law-making powers that cover on-reserve schools, provincial education standards that must be met, and the establishment of Community Education Authorities to manage the education system for participating First Nations. The initial phase is jurisdiction over on-reserve K-12 schools for First Nations who formally opt into the agreement.

While still in its formative stages, this development opens the door to a BC First Nations 'school system' and the development of an infrastructure achieved through economies of scale that could allow unprecedented levels of services and supports for band schools and their students. It suggests the possibility of coordinated curricula, assessments, teacher and school certification standards, and monitoring and reporting under the First Nations Education Authority. Mendelson (2008) notes some drawbacks to the agreement, primarily related to adequate funding necessary to resource a systems model and the geographic reach it must administer. Enthusiasm also needs to be tempered with the knowledge that effective self-governance of a 'system of schools' has been difficult for the Cree School Board to achieve some 30 years after the Quebec Agreements were made (Mendelson, 2008; Papillon, 2008; Fulford, 2007; Cree School Board, 2008). Nonetheless, the BC experiment offers a compelling template for supporting capacity building, ownership and accountability in First Nations schools.

Tlicho Community Services Agency

The Tlicho Community Services Agency (TCSA) is an appointed body which administers health, education and social services in four Tlicho communities north of Yellowknife, Northwest Territories. With the settlement of their land claim in 2005, the Tlicho were granted governing powers similar to a school board in specially drafted regulations under the NWT Education Act (Dogrib Education Division Regulations R-114-96). These regulations provide some unique local powers to the TCSA, such as in hiring and curriculum, but as with other school boards, the Minister

of Education (GNWT) retains ultimate authority and the power to dissolve an education body and appoint a trustee to govern and deliver the education program if he deems it necessary.

The TCSA administers two schools: a K-12 school enrolling 500 students, and a smaller primary school. Funding for their operation comes through a financial contribution made to the Tlicho Community Services Agency by the Government of the Northwest Territories. School and TCSA administrators have successfully obtained additional third-party funding from a wide variety of sources to add an impressive array of programs and supports to the core curriculum and have gained recognition for their uniquely pro-active education programs that bring about success for Tlicho youth. The vision statement "Strong like Two People" has been the touchstone of the TCSA with a belief that children should be taught equally in both cultures.

The TCSA has established goals for schools and administrators and reviews and adjusts these annually. The Superintendent of Education and Supervisor of Schools are employed by the TCSA to oversee the pedagogy and operations of the schools under their jurisdiction. There is strong visionary leadership both at the school and board level, strong cultural and academic programming, high student and staff retention, and an increasing number of students going on to post-secondary education.

The Tlicho model is notable for its commitment to capacity building. The political leaders at the community, TCSA and Tlicho Government levels see education to be a key to future Tlicho development and have been extremely supportive of the school and devoted additional resources and time. The Tlicho Government funds a scholarship program of approximately \$500,000 annually and created a Post-Secondary Coordinator position in the school to act as a liaison between the Tlicho students and post-secondary institutions. There are now some 93 graduates attending post-secondary training. During the 2005/06 school year, the Tlicho Community Services Agency entered into a partnership with the Mine Training Society of the NWT that has resulted in \$600,000 annually to implement and operate the Tlicho Trades and Technology program. This pre-trades program enrolls 98 Tlicho youth each year, preparing them for entry into further vocational training programs (adapted from Fulford, 2007 pp 61-66).

Akwesasne Mohawk Board of Education (AMBE)

The Akwesasne Mohawk Board of Education (AMBE) functions much like a municipal school board. It has 9 elected representatives from each of its three school districts and a full-time administrative staff housed in a Board office. The AMBE is responsible for administering three elementary schools with a total attendance over 500. In the 2005/06 academic year, AMBE administered a budget of \$4,387,000. While recognizing the authority of the Mohawk Council, the AMBE acts as a semi-autonomous governing body for education. Its authority to do this devolves from INAC and is recognized by various MCA resolutions.

Together with the Director of Education and his staff, AMBE Board members are responsible for planning, policy, finance, personnel, evaluation, student transportation and community relations. The Board holds monthly public meetings and consults widely with community members. In addition, the Director of Education meets bi-weekly with the principals. Each school has a leadership team which meets once a month. A parent committee assists the schools, but does not advise the Board.

The AMBE Director is responsible for developing and implementing policies and procedures for the entire school system. These include hiring and evaluating teaching and support staff, as well as monitoring overall student achievement and overseeing the budget. Principals are responsible for administration of their school and budget. Performance reviews are conducted annually at all levels

of the AMBE structure to assist in long-range planning and create an environment of accountability. The Board's ultimate goal is capacity building to promote a strong and vital community for present and future generations. Whenever possible, decisions at the Board are made through consensus.

The Board's budget supports a variety of programs and services generally not available in smaller reserve communities. These include district-wide busing, full-day junior and senior Kindergarten, screening tests, a free breakfast program, and hot-lunch program. In addition to 22 full-time classroom teaching positions at its three schools, AMBE employs 21 early childhood teachers, 6 special education teachers, 8 Mohawk language teachers and 17 instructional support staff. It also contracts the services of a full-time school psychologist, a speech and language pathologist and an occupational therapist. Recently AMBE has begun coordinating its professional development with Upper Canada School District School Board. Since May 2007, AMBE has participated in the provincial assessments of reading, writing and math skills for Grades 3 and 6 (adapted from Fulford 2007, pp 34-37).

Co-Governance Arrangements

There are a number of examples of First Nations education authorities entering into co-governance arrangements through the contracting of educational services from adjacent school divisions. This model is particularly appropriate for providing a level of infrastructure not possible on smaller and more isolated reserves. The services most commonly contracted are personnel (teacher recruitment, hiring, supervision, payroll, and professional development), bussing, educational testing and screening, special education and curriculum services. The band has responsibility for hiring of support and maintenance staff and associated budgets. An Education Director and Education Committee appointed by and reporting to the band Council usually set school policies, establish the budget, and play a key role in maintaining a working relationship between political and educational leaders of both sectors (Bell, 2004). While these arrangements can be successful with high levels of trust on both sides and written agreements regarding responsibilities and accountability expectations; some have foundered over time on issues of shared control and payment for services.¹² In his analysis of First Nations education funding in British Columbia, Postl (2004) pointed to the potential two-way value of such inter-jurisdictional arrangements, "there appears to be room for additional cooperation, especially with local school districts in the acquisition of special education expertise and sharing of language and cultural materials, but time and financial constraints restrict the development of such networks" (41).

Good Local Governance Practices

Space in this review permits discussion of just four practices boards should engage in and some positive examples from the field regarding: training, performance audits, parental involvement, and forging partnerships to leverage their work.

Board Training

In view of the regular turnover of elected or appointed representatives on education boards, and the recognition that effective governance is a complex process, effective boards engage in dedicated training to develop competency in their role (Ontario Ministry of Education, 2008). Such training is

¹² The Whitefish Lake First Nation and Northland School Division have recently terminated their Contract for Services arrangement for Atikameg School on the Whitefish Lake reserve in northern Alberta, despite improving educational outcomes since 2000 as documented in Bell (2004).

provided on a regular basis by umbrella associations for school trustees in provincial school systems, but there is little systematic parallel training in the band sector.

To provide support for First Nations education boards in British Columbia, the First Nations Education Steering Committee commissioned two resources to be used in conjunction with training workshops (Thomas, 2002/2004). The first handbook provides an introduction to the governance role and responsibilities for newly elected or newly appointed members of First Nations boards, clearly differentiating the respective roles and responsibilities of the board and its executive director. The second handbook presents a strategic planning process that links directly to the board's governance role and responsibilities, mandate and mission, vision, goals, policies, and budget. It includes an overview of how to plan for results, advocate for constituents, and communicate the Board's plan, and a sample strategic planning process and resulting governance action plan.

Performance Audits

Regular reviews of programs and services are an important tool for improving governance and administration, and essential to maintaining the relevance and quality of education delivery. Best practice includes conducting internal reviews of various sectors of operations on a planned schedule as well as periodic external audits of performance.

Exemplary practices with respect to ongoing internal monitoring are illustrated here by the Akwesasne Mohawk Board of Education (AMBE), Lakehead Public Schools, and the Kamloops-Thompson School District. The AMBE undertakes yearly evaluations at all levels including Board operations. The principals of each school and the Director are responsible for assessing teachers. The Director evaluates principals' performance. Board members assess the Director's performance on a bimonthly basis and provide an annual written evaluation using a five-point rating scale in five key areas – personnel management, educational leadership, community relations, financial management and communication - along with constructive comments on strengths and areas in need of improvement. The AMBE assesses its own performance through a review committee struck each September consisting of the Director, MCA chiefs and members of the public. The committee identifies key areas the Board needs to address, and develops an action plan, including specific goals and a timeframe for meeting them. This plan is then presented to the Board. Throughout the school year, Board members report regularly to the review committee on their progress in meeting established the goals. Each June, the review committee presents a written report to the Board assessing its performance in meeting its goals and the relationship with its Director, principals, teaching and support staff, MCA chiefs and the general public. This evaluation model assists long-range planning and creates an environment of accountability (Fulford, 2007).

Lakehead Public Schools' *Urban Aboriginal Education Project* was developed through consultation with its Aboriginal Education Advisory Committee and a Steering Committee comprised of representatives from local Aboriginal organizations. The project addresses the priority needs that were identified in the areas of staff development, literacy interventions, student support programs, and family involvement. The project is being guided by evidence gathered through multiple indicators, including annual EQAO assessments in literacy and numeracy. As a result, it was necessary for the district to develop and implement a self-identification policy which enabled it to obtain provincial achievement data for the Aboriginal cohort which is being used to monitor progress of the project. Summary analyses of performance results for 2007/08 identify their gains and gaps at each level in comparison to other students in the district and to the identified provincial Aboriginal cohort. This information is linked to the interventions the district has in place and used to draw conclusions concerning next steps. The project is also being independently evaluated by a team of researchers from Lakehead University (Lakehead Public Schools, 2008a, b).

The First Nations Education Council of the Kamloops-Thompson School District (BC) commissioned a study to identify factors influencing under-performance of Aboriginal students, analysis of the research on successful programs for mitigating these factors, and recommendations with respect to their application to improvement of district programs and practices. The resulting report (Turner, 1999) has been used to guide changes in the district with positive results.

With respect to external reviews, three examples of good practice are found in British Columbia, the Cree School Board, and Kitigan Zibi Education Council. In BC, external teams conduct triennial reviews of school districts to examine the extent to which a board is achieving the goals stated in its accountability contract with the Ministry. Aboriginal performance data and evidence of collaboration with Aboriginal stakeholders are among the data examined. The resulting report requires the board to develop action plans to implement recommendations for improvement (Dosdall, 2007). A second example is the full system performance audit contracted by the Cree School Board (CSB, 2008), which revealed serious deficiencies and made a number of blunt and sweeping recommendations for change. The extent to which they will be acted upon is not yet clear, but the force of such a report will provide impetus and authority for systemic improvements which could not have been achieved through internally controlled reviews in the highly bureaucratic CSB administrative structure. As a third example, Kitigan Zibi Education Council contracts multi-year administrative and program reviews and the administration of periodic standardized assessments from regional universities (Fulford, 2007). This is an ideal arrangement for small band authorities with limited infrastructure

Involving Aboriginal Stakeholders

By seeking greater control over schooling, Aboriginal people are asking for no more than what other communities already have: the chance to say what kind of people their children will become. In the main, Aboriginal people want two things from education: They want schools to help children, youth and adults learn the skills they need to participate fully in the economy. They want schools to help children develop as citizens of Aboriginal nations - with the knowledge of their languages and traditions necessary for cultural continuity. (Report of the Royal Commission on Aboriginal Peoples, 1996)

Affirmative actions in this regard are seen in:

- The requirement of Ontario school districts to establish FNMI Advisory Committees and develop strategies to encourage FNMI parent involvement, and ensure that schools create mechanisms to facilitate this (Ontario MOET, 2007a).
- Aboriginal Education Enhancement Agreements for BC school districts, which require the consultation and agreement of local FN representatives in the development of goals and strategies for improving outcomes for Aboriginal learners (Dosdall, 2007).
- Parent involvement support programs such as The First Nations Parents Club in BC (FNSEA, 2008) and Manitoba's Building Student Success with Aboriginal Parents (Manitoba ECY, 2008).

Richards et al. (2008) concluded from their comparisons of BC school districts, that those demonstrating the most consistent district-wide progress for Aboriginal students were characterized by a "relatively long history of shared decision-making and the promotion of 'ownership' over funding and program decisions among local Aboriginal communities" (15). This was often demonstrated in the creation of high-ranking positions dedicated to Aboriginal education. Further, these districts appeared to benefit from strong relationships with and visible support from high-ranking Aboriginal leaders in the community.

By way of international comparisons, Australia has mandated formal decision-making structures and processes in all schools to include Aboriginal parents and community members through the establishment of an Aboriginal Voice committee whose role in governance, curriculum, and improvement planning and reporting is recognized in the school constitution. (Commonwealth of Australia, 2007b)

Policy Development

School districts are developing comprehensive policies to guide their delivery of Aboriginal education. Calgary Roman Catholic Separate School District policy, for example, affirms a commitment to providing quality programs and services for Aboriginal students and increasing all students' understandings of Aboriginal cultures. The District will maintain high standards for Aboriginal learners, track and report their achievement annually, strive to increase graduation rates, provide opportunities for them to study and experience their own culture, ensure parents have opportunities to participate in school decisions, and provide quality professional development and resources to support teaching and learning for Aboriginal students (CRCSSD, 2007). Saskatoon Public Schools has developed comprehensive policy on being an inclusive and culturally responsive school division (SPSD, 2008). From their study of BC school districts, Richards et al. (2008) concluded that "effective district policies play an important political role in creating and sustaining leadership and coordination around Aboriginal education" (14).

Forming Strategic Alliances

Many school districts and band councils are forging alliances with other organizations to help them achieve their goals for Aboriginal education. One example of a formal, long-term regional multi-sector partnership is the Okiciyapi Partnership between Saskatoon Public Schools, the Saskatoon Tribal Council and the Central Urban Métis Federation. This collaboration has resulted in the co-production of cultural curricula and accompanying professional development for teachers, joint assessment projects to identify literacy skill gaps and the professional development needed to address them, a more representative workforce, and the establishment of a Cree bilingual program (Saskatoon Public Schools, 2009). In studying this and other such partnerships, Lafond (2006) defines some best practices and criteria for their success, including: clarity of purpose, congruency of mission and values, valuing shared resources, good communications, strong commitment by all stakeholders not just senior administrators (p 13).

The Education Partnerships Program recently introduced by Indian and Northern Affairs Canada (INAC, 2008c) is designed to foster similar purposeful collaborations among First Nation and provincial school boards and other stakeholder groups. The development of such formal working partnerships is intended to open the way to the sharing of information, expertise, services and best practices to benefit Aboriginal students. It is also hoped that some jurisdictional barriers between systems may be eliminated for students who move from one system to the other and that efficiencies and economies of scale may accrue when resources are pooled. This latter is an important strategy to deal with infrastructure issues in the band-operated sector. The funding guidelines recognize that the development of a working partnership requires dedicated time and resources, and thus provide support for both development and implementation phases. The requirements for clear and measurable goals, the use of specialized expertise and training to build capacity, and monitoring and reporting will serve to focus these partnerships on achieving results.

Senior Levels of Government

The following recent trends have been noted with respect to more effective governance practices at provincial/territorial and federal levels:

Alignment across departments and levels of government to coordinate actions to improve Aboriginal outcomes

This is illustrated in the following examples:

- The Northern Economic Development Ministers convened a two-year inter-provincial project on best practices in education and training for Aboriginal and northern youth. (Northern Development Ministers Forum, 2006)
- British Columbia brought early childhood development under the Ministry of Education in 2008 to improve coordination of early childhood programs and services for at-risk children through the school system. The Early Childhood Learning Agency (ECLA) works closely with the Ministry of Children and Family Development. (Early Learning Agency, 2008)
- Tripartite agreements amongst provinces, federal government and other partners (i.e. school divisions or FNMI authorities) on substantive education initiatives. (e.g., the AVID project in BC (SRDC, 2008), Making Education Work Project in Manitoba (Manitoba ECY).
- Coordinated actions by the Council of Ministers of Education Canada through its Aboriginal Education Action Plan (CMEC, 2008).

Establishing dedicated branches within Ministries of Education

All larger provinces have established dedicated branches within their Ministries of Education to focus on Aboriginal education. These units have been charged with the responsibility of and given resources for mobilizing and coordinating stakeholder and government efforts to improve Aboriginal outcomes. They are required to develop multi-year strategic action plans through consultative processes, and report on progress toward the goals established. In this process they have overseen the creation of new Aboriginal provincial councils or advisory bodies involving various sectors (parents, educators, trustees, post-secondary and FNMI) to advise them individually and collectively on strategic directions and implementation measures. Common thrusts have been data collection, curriculum development, school inclusiveness, partnership development, retention, teacher preparation and professional development, and research into best practices. Their policy development is marked by unprecedented attention to alignment of initiatives across government sectors.

Within a smaller province like Nova Scotia, capacity building has recently occurred as well. Although the Mi'kmaq Services Division has existed since 1997 within the Nova Scotia's Department of Education, a recent province-wide consultation determined a need for more intensive efforts and expertise in the area of Mi'kmaq curriculum development and service delivery. As result, the Mi'kmaq Liaison Office (MLO) was created in 2008 with an expanded role and dedicated specialist staff in needed areas. The MLO is responsible to develop Mi'kmaq language curriculum and strengthen language instruction across the province and may contract the development work to the Mi'kmaq Kina'matnewey consortia (MK). As well as curriculum development, the MLO is charged with identifying gaps that currently exist for Mi'kmaq learners and taking appropriate steps, reviewing pilot research for best practice to be scaled up, and coordinating professional development services for educators on the infusion of Mi'kmaq into the curriculum (Nova Scotia Education, 2008).

Increasing attention to data collection to facilitate improvement planning and reporting

The absence of information has hampered Aboriginal policy and program development in Canada (Ball, 2008; Richards, 2008). Promising steps to remedy this can be seen in:

- Concerted provincial efforts to develop processes for identifying the FNMI student cohort in order to monitor their progress (Ontario 2007b, Alberta Education, 2008b; Manitoba ECY, 2007b) as part of a pan-Canadian indicators project.
- The Aboriginal Children's Survey (ACS) by Statistics Canada through Social Development Canada which will permit analysis of factors related to children's educational experiences.
- The Reforming First Nation Education Initiative of Indian and Northern Affairs Canada to promote the use and reporting of performance data for school improvement planning in band-operated schools (Indian and Northern Affairs Canada, 2008 a,b).
- Surveys of Aboriginal teachers to be used to develop a profile which can assist in recruitment and support of more Aboriginal educators (Manitoba).
- Annual reports on the performance of Aboriginal education in BC. At the provincial, district and school level (Aboriginal Education Enhancements Branch, 2008).
- Annual surveys of First Nations Schools in BC to provide data to determine needs and progress across the system (FNSA, 2008).

Forming of new partnerships and alliances

Across all levels of the system, an understanding has emerged that greater progress will be achieved through collaborative action. Historic silos are breaking down and the various players are seeing common interests and benefits in working together for solutions to the challenges in Aboriginal education (Phillips & Raham, 2008).

This process can be greatly leveraged by the involvement of capacity building organizations whose work in the field can help bring policy initiatives to scale. A list of some of these organizations is included in Appendix A.

1V. Policy Analysis

The foregoing review of the literature provides some insights on evidence-based practice to improve Aboriginal education in Canada. It also sketches the current state of the field and highlights some of the gaps in our knowledge. In this section, the central findings for each area examined are summarized with a brief discussion of their implications for policy¹³. This is followed by an analysis of policy lessons that can be drawn from the international comparators in this review, the identification of policies holding the greatest promise for large-scale progress in Canada, and concludes with a research agenda to further understandings of best practice.

Summary of Findings with Implications for Policy

Literacy and Language

Literacy skills are foundational to all other academic success. First Nations students often enter school with a large vocabulary deficit and limited proficiency in either an Aboriginal language or English/French. For many, the literacy gap is not closed as they move through the system, posing a significant barrier to on-time graduation. The research makes it clear that:

- Teaching children to read in their first language is the most effective approach.
- Bilingual/immersion instruction advantages students if done well. The evidence suggests transfer to the second language should be delayed for 5-6 years.
- Teacher skills and knowledge are a critical factor in reading acquisition, and teachers in immersion/bilingual programs need additional specific training in language acquisition and transfer.
- Successful literacy programs have their roots in high quality pre-school programming.

A number of policy issues surface from the literacy and language research. The first revolves around program selection. May et al. (2003) point out from the New Zealand experience that it is important to provide sufficient language options for families, but providing bad options should be avoided. The tendency for schools, districts or systems to adopt literacy and language programs without rigorous comparative research on their efficacy means that some children may be disadvantaged (Phillips et al., 2004). There is a demonstrated need for Canadian research on effective approaches to literacy instruction for Aboriginal children in mainstream settings and on optimal instruction in Aboriginal languages and the effects of various models on their literacy and cognitive development.

Secondly, to equip all teachers of Aboriginal children with a wider repertoire of effective literacy strategies and relevant, high quality and engaging teaching materials, it will be necessary to increase investments in literacy training and the development and accessibility of resources.

Particular policy considerations arise with respect to the delivery of bilingual/immersion programs. Which languages are most viable and should receive the long-term investments required to deliver quality programs? What policy actions are needed to develop an adequate supply of highly proficient language teachers, the production of related language materials for instruction across the curriculum

¹³ Two areas not addressed in this research due to time constraints were special education and early childhood development. Education funding was outside the parameters of the review. Thus, the policy analysis which follows should not be considered as exhaustive.

(not just literacy), and the development of reliable standardized assessments and diagnostic tools in these languages? Additionally, the delayed acquisition of English among learners in Aboriginal language immersion programs suggests a mechanism will be needed for calibrating results from immersion schools with large-scale literacy assessments during Years 1-6. As success in immersion programs is also closely linked to early childhood development programs, this implies the necessity of an integrated language strategy Pre-K to 6.

It is clear that interventions on the part of senior levels of government will be required to create the conditions for success in Aboriginal language immersion programming. This could most likely take the form of Language Institutes such as those established in New Zealand and Norway to coordinate the production and dissemination of language materials, assessment tools, conduct longitudinal research and cost-benefit analyses of immersion programs, and provide training and establish certification standards for language teachers. This is consistent with recommendations by the ITK (2008), Fulford (2007), the Task Force on Aboriginal Languages (2005), RCAP (1996) and others.

Culturally-Based Instruction

The evidence suggests that:

- The inclusion of culturally meaningful materials in the curriculum is widely accepted as beneficial for Aboriginal students.
- The use of pedagogical approaches considered to be compatible with traditional Aboriginal learning styles can be beneficial but must be consistent with learning objectives and high quality instruction.
- All students should be exposed to educational experiences related to Aboriginal histories and culture.
- The degree of culturally based instruction in a school should be determined in consultation with the school community.

The development of culturally relevant curricula is underway at the provincial/territorial level. The resources required at the school/district level, however, are often geographically specific, and only larger school districts or band-operated systems possess the dedicated capacity and in-house expertise for their development. Governments have larger role to play in providing direction and support to smaller education authorities for developing, delivering and evaluating curricula for cultural and language programming. The development of needed resources at the local level might be also be facilitated through government subsidized partnerships with regional FNMI organizations and universities. Principles of community design and ownership and quality assurance will be fundamental to these arrangements.

More research is needed regarding the impact on student achievement of Aboriginal magnet or focus schools where culture and language permeate all aspects of the school programming.

Student Engagement and Retention

It is important to learn the supports required to keep Aboriginal youth, especially boys, engaged in school and planning for higher education/training and successful entry into the workforce. The research suggests that:

- There is common agreement that social issues affecting children's retention and success in school must be addressed at the community and larger policy level.

- The personal-affective domain must be addressed before academic progress can be made.
- There are many in-school initiatives which are having beneficial effects on student engagement and retention and should be adopted as common practice.
- Canada could borrow from the coordinated set of approaches employed nationally in Australia's *Whole of School Intervention Strategy* and New Zealand's *Student Engagement Initiative*.
- An expansion of vocational, apprenticeship, mentoring and counselling programs appears warranted, as well as external programs designed to address summer learning loss.

Stay-in-school policies require a high degree of sensitivity to local conditions. Provincial school-based apprenticeship programs and support systems such as AVID are seldom practical to implement in smaller and more isolated communities, making it necessary to encourage alternative stay-in-school strategies to fit local contexts. Dropouts related to high mobility have become a significant issue which urban schools and districts must address with comprehensive strategies. Easing school transitions where students from small communities must travel long distances to a secondary school requires structural changes to the delivery of services. The systematic development of feedback from drop-outs (exit interviews) and longitudinal data-sets will help inform prevention strategies.

Home and Community Partnerships

Educator efforts to increase success rates for Aboriginal learners can be leveraged by involving parents and community. International research indicates that:

- Efforts in this area should be focused on increasing student achievement.
- The role of Aboriginal parents and community should be established in formal decision-making structures (such as representation on school boards and school councils).
- Efforts to build capacity amongst Aboriginal families and community leadership to support their children's learning are likely to pay off.
- Aboriginal parent and community capacity building programs at the local level should be supported by government structures and funding to scale up their impact.

Policy development should be guided by the principle that parents and community have a key role to play in the education of their children and that improvements to student performance are more likely to be realized when Aboriginal stakeholders are incorporated into decision-making structures. Determining the educational provisions in each community to maximize opportunities and outcomes for Aboriginal learners needs to be achieved through respectful dialogue, sharing of information and support for participation in setting the goals and strategies. Mobilizing leadership in the Aboriginal community for educational progress will help to promote ownership of and long-term commitment to change. BC's Aboriginal Education Enhancement agreements which require joint consultations to establish targets for improvement and the resources and strategies for meeting these goals represent a model worth replicating.

Instruction

The complex nature of teaching has led to a 'policy vacuum' around pedagogy which has undermined many school reforms (Luke et al., 2000). Steps taken on other policy fronts—such as curriculum, language, community engagement, funding and the like—will not yield results for Aboriginal student achievement without concomitant attention to pedagogy. The research on instruction suggests that:

- Teachers must hold high expectations for Aboriginal learners, coupled with warmth, caring and respect.
- Teachers in Aboriginal classrooms need a wide repertoire of instructional strategies and explicit knowledge of culturally appropriate approaches.
- Regardless of learning styles and preferences, good pedagogy is critical to the achievement of Aboriginal learners.

The need for a highly skilled cadre of teachers for FNMI learners has implications for teacher training institutions, governments and local education authorities. Thus, a concerted effort by governments to hold training institutions accountable for what novice teachers know and can do, and by local education authorities to provide effective ongoing professional development and coaching throughout their teaching career is called for.

Teacher Education, Development and Support

Reducing the gap for underachieving minority populations requires deliberate policies to counter the natural influences of supply and demand in order to attract and retain the most highly skilled teachers and administrators into these schools. In this regard, the evidence is that:

- The recruitment and training of teachers for Aboriginal settings has been identified as a priority in Canada; the need for qualified language teachers is most urgent.
- There has been little study of the efficacy of specialized Aboriginal or regular teacher education programs in meeting the needs of high-Aboriginal schools.
- Efforts are underway in mainstream programs to increase the cultural and pedagogical proficiency of teacher candidates, but implementation varies among institutions and has not been evaluated.
- Mentoring programs have proven effective in assisting new teachers acquire good practices and in reducing attrition. Few such programs are available in Canada.
- New forms of professional development focused on school-based teams of teachers (i.e., use of professional learning communities, technical coaching and support, and action research) can leverage teacher/school capacity to deliver high-powered instruction.
- Good teaching relies on the availability of quality learning resources directly relevant to the curriculum. There is an urgent need for more coordinated development of and access to these materials.

Both governments and school districts must find new solutions to address teacher recruitment and retention for schools serving Aboriginal learners. The need for more Aboriginal teachers in the workforce requires long-range planning, target setting and annual progress reports. Initial preparation programs in Aboriginal education and credentialling in FNMI Language and Culture should be expanded to create an adequate supply of skilled teachers. Proficiency in these areas should be recognized with a specialist degree/certification and additional salary. The various training programs should be evaluated and the best models expanded to increase the supply of highly qualified teachers. The creation of an Arctic university could be an important source of skilled Aboriginal educators.

The development of policies to support universally available mentoring programs for new teachers in Aboriginal classrooms as well as programs to train and credential mentors should be encouraged. In medium and large schools serving high concentrations of Aboriginal students, a full-time resident master teacher to mentor new staff would serve this purpose. The mentoring of teachers in small schools in rural and remote areas is more problematic, and might best be addressed through itinerant

pedagogical supervisors or stipulating an “internship” period prior to the new teacher assuming full-time responsibility. Local education authorities should create dedicated staff at the district level with the expertise to coordinate and support and evaluate services for Aboriginal students.

Significant investments in professional development were found to be essential to increasing teacher skills, particularly in low-achieving schools. Research suggests that these schools benefit from intensive forms of professional development and technical support in instructional strategies, aligning standards for student work, and using assessment feedback to plan instruction.

School Leadership

Schools serving Aboriginal students need highly skilled principals. The expectations for this role continue to increase as a result of expanded programming to support Aboriginal learners, the necessity for meaningful community engagement, and accountability for managing school improvement plans. The research suggests that:

- Principal leadership is the most important factor in school success.
- Effective school leadership is distributed, and the administrative structures should be chosen to best meet the needs and circumstances of the school.
- Specialized training and professional development support is required for principals in schools serving high proportions of Aboriginal students.
- Principals in community schools require additional administrative support as well as specialized training in the skills required to coordinate the services of and work effectively with multiple agencies in the school.

These findings suggest a number of policy directions for strengthening school leadership. The vast majority of principals in FNMI schools receive their training and administrative experience in the mainstream system. The creation of regional FNMI School Leadership Academies which confer specialized training and status recognized for salary purposes within the public and band-operated sector could address the need for a cadre of principals with the skills and knowledge required for this position. Training in community school administration could be one stream of programming provided. These leadership academies could also play an important role in the provision of professional development services for principals of schools serving high proportions of Aboriginal learners. The establishment of a formal network such as Australia’s *Dare to Lead* program which provides national and regional support for principals working in indigenous environments should also be considered for its contribution to the leadership practices of administrators in this country.

School Programming

The research on Aboriginal schooling suggests that:

- Programming is most effective when it is holistic, offering a broad range of supports for students and their families and shares community resources to achieve this goal.
- Programming must be flexible and personalized for particular learners. Approaches that extend teaching and learning time through such mechanisms as double blocks of literacy and math, before and after-school programs, homework clubs and summer reading academies are known to be beneficial.
- Programming is enhanced by the contributions of Aboriginal educators, support workers, Community Connectors and elders.

- More seamless programming from early childhood to post-secondary is a strength of some band-operated schools and increasingly practiced by provincial/territorial schools.
- Community schools appear to be a promising vehicle for delivery of Aboriginal education. This model requires fundamental changes in school organization and program delivery in order to successfully integrate multiple agency services to support learners and their families.
- The delivery of high-quality programs and services in remote communities and schools with low enrolments remains a challenge.

These findings point to a number of policies to enable more effective programming in schools serving Aboriginal learners. These include more flexibility in scheduling, including year-round and extended day operation; funding and coordination of extended educational services such as pre-school, as well as needed social supports; increased supply and credentialling of Aboriginal support staff in the school; more administrative support and training for the coordination of programs, and additional resources for isolated schools. Technical support might include a multi-pronged research program designed to develop a more comprehensive knowledge base in effective school programming through the identification of high-functioning schools as demonstration models for extended programming, technical support for experimental and community schools, and research to document start-up issues and best practices in these schools and measure outcomes.

Few public schools offer intervention programs for at-risk pre-schoolers. In light of the positive effects of early intervention, federal/provincial commitments to early learning and development should be accelerated by delivering these through the school in cooperation with existing parenting and literacy programs, Aboriginal Head Start, and other providers. Provinces/territories which do not fund full-day kindergarten for Aboriginal children should consider doing so.

The potential of community school programming to meet Aboriginal children's needs in a more holistic manner should not be ignored. Research suggests there is value in extending the traditional role of the school to coordinate and integrate various child and family services, bringing the wider community into closer contact with the school, and building capacity and social capital. Policies to support effective community schools must provide for adequate staff training, empowerment, resourcing, and evaluation.

Funding provisions also matter. The prevalence of short-term funding for local programming initiatives and the uncertainty of sustained support fosters a piecemeal approach to programming, impedes long-term strategic planning and monitoring of impacts, and limits system utilization of lessons learned from these initiatives. As results cannot be accurately assessed in the short-term, multi-year funding with built-in monitoring and reporting would be a more effective policy approach.

Finally, districts and governments should invest in independent evaluation of innovative school programs. Participants who have devoted considerable energy and resources to new programs are understandably anxious to see them succeed. It is tempting to use anecdotal evidence as "proof" that the intervention is making a difference. Rigorous independent research can provide objective data to help inform program planning and decisions.

Assessment, Monitoring and Reporting

The research is clear that improving schools and systems gather appropriate performance information and use it regularly to assist in gap analysis, improvement planning, and resource allocation. Among other things, we know that:

- Teacher proficiency in using assessment to guide instructional decisions is a key factor in the progress of Aboriginal students.
- Schools benefit from coaching in the use of data for school-wide improvement planning.
- There is a need for the development of reliable assessments for Aboriginal languages and culture.
- Regular internal and external review of programs at all levels of the system is an essential element of improving educational services to Aboriginal students.

The importance of using multiple forms of assessment at the school level to guide instructional and programming decisions suggests that local educational authorities and provincial governments should maintain annual assessment programs and foster school-level expertise in data-based planning. There is also a need for the development of assessments and diagnostic tools in Aboriginal languages and their calibration with English/French assessments. Efforts must also be devoted to developing more holistic and culturally relevant measures of Aboriginal learning.

Governments have a critical role to play in facilitating the disaggregation and interpretation of Aboriginal cohort data. This depends upon an information system which permits the identification and longitudinal tracking of Aboriginal learners. Most provinces are working towards this goal which has been articulated by the CMEC. Across jurisdictions, however, it is a slow and non-standardized process, relying on voluntary self-identification, the politics of which requires establishing high levels of trust and an appreciation of mutual value in the process. A reassessment of identification strategies may be required to expedite the urgently needed development and usage of a national system for monitoring the progress of the Aboriginal cohort and the impact of interventions in play.

Continued work is necessary towards establishing a pan-Canadian set of indicators for reporting Aboriginal achievement K-12 across delivery sectors. At a minimum, these indicators could include:

- The percentage of students *meeting expectations* in literacy and numeracy at key grade levels. These could be measured through existing provincial assessments which would then become mandatory for band-operated schools as well.
- The percentage of students entering school ready to learn, as measured through screening tests administered on entry to Kindergarten.
- Attendance rates.
- High school graduation rates, refined to differentiate between on time and delayed completion. (Work will need to be done to standardize inconsistent definitions of graduation across jurisdictions).

To these could be added other useful indicators such as parent and student satisfaction rates, the percentage of students who are proficient in an Aboriginal language, or of those taking senior level math and science courses. Australia and New Zealand also gather related indicators such as percentages of Aboriginal teachers, administrators and support staff.

Four levels of government – federal, First Nations, provincial and local education authorities -- must collaboratively develop coherent policies and systems for data management and reporting on the agreed set of indicators. Along with these reports should be a plan by each jurisdiction for addressing identified weaknesses. This may be most challenging for the federal government through INAC, as it will be necessary to develop from scratch a comprehensive data collection, analysis, monitoring and reporting function relative to educational performance in the band-operated sector.

Accountability systems are designed to focus efforts and resources on desired results. In general, education accountability systems tend to be weak, with few consequences or interventions for chronic failure and limited recognition or celebration of excellence. When data are reported annually and longitudinal patterns of performance become visible, however, internal accountability tends to heighten. The best models within Canada articulate responsibilities for improvement planning based on results data at each level and require public reporting. They are also aligned, in that school planning feeds into district level action plans, the results of which are reviewed by the province. BC is unique in its use of Aboriginal enhancement agreements specifying outcomes for Aboriginal education and the resources and strategies for meeting these goals as a part of the district's accountability contract with the government.

Supports for school improvement processes are becoming more common and this should be expanded. While best practice urges data-driven planning which aligns resources, instruction, professional development and programming to support identified goals, many schools are unfamiliar with these processes or implement them unevenly. Grants and technical support for school improvement planning focused on site-specific learning challenges are an effective long-term investment in continuous improvement and strengthened internal accountability for results.

Governance and Capacity Building

Governance of Aboriginal education in Canada is complex, involving decisions by federal, First Nation, provincial/territorial governments, local education authorities, and local schools. Several key findings that emerged from the review of governance structures and practices are:

- A new model of governance for band-operated schools is needed, and some promising options have emerged for study.
- Best practices in local governance include the provision of training and support to education authorities, legislative and regulatory changes to ensure to representation of Aboriginal parents and community leaders in decision-making, clearly articulated policies on Aboriginal education, and purposeful partnerships to benefit Aboriginal learners.
- Senior levels of government are acting on the need for increased attention to data collection to facilitate planning, monitoring and reporting of educational progress for the Aboriginal cohort.
- Inter-governmental cooperation on Aboriginal education issues is becoming increasingly common, and new partnerships and alliances with other agencies show promise of harnessing broader resources to achieve common goals.

Most importantly, steps must be taken to enable First Nation authorities to achieve a level of educational infrastructure and services equivalent to those of provincial/territorial systems and acquire the technical expertise for results management. The range of policy options available include a) the creation through legislation of a fully accountable national First Nations Education Authority (FNEA) with adequate resourcing to establish a complete systems model which provides infrastructure, training, human resources, and which oversees standards and curricula and assessment for band-operated schools throughout the system, reporting to the federal government; b) the creation of provincial FNEA with similar roles and responsibilities, reporting to a provincial government; c) clustering FN schools under regional FNEA's which could yield sufficient economies of scale to establish infrastructure comparable to that of provincial school boards d) granting status as an Aboriginal school board under provincial/territorial authority with concomitant resourcing and accountability; or e) an arrangement whereby a FN education authority contracts needed services and infrastructure support from an adjacent provincial school board. Obviously, any of these

governance arrangements must be achieved in consultation with First Nations, and will require the articulation of roles and responsibilities and minimum thresholds of infrastructure and professional support to be provided, as well as accountability mechanisms.

Failing the ability to expeditiously effect such governance changes on a widespread basis, Indian and Northern Affairs might consider the creation of a national professional standards body for First Nations schools. This body could be contracted by INAC under a five-year business plan to provide technical support and professional development services, develop quality management standards and coordinate the provision of needed infrastructure on a more cost-effective basis through economies of scale.

Performance audits based on student achievement data should be conducted in both band-operated and provincial/territorial sectors. The expertise of provincial and federal auditors should be routinely enlisted to provide regular reports to verify system achievement. Governments should adopt a more prescriptive role in instances of chronic failure to improve student outcomes and accord greater autonomy to those education authorities demonstrating the management skills to positively influence student achievement.

Formal policies and processes for the meaningful input of Aboriginal parents and community and the communication of school results must be in place; this is equally necessary in band-operated schools where governance processes are not always transparent.

Good governance also focuses on building capacity and fostering innovation at all levels of the organization. For this reason, partnerships across sectors and agencies should be encouraged for the new resources and knowledge exchange benefits they bring. The contribution of capacity building organizations at the regional or provincial/territorial level should be maximized in this process.

Promising Directions for Accelerating Progress

Given all the initiatives, programs and interventions available and the evidence on best practice, the challenge for Canadian policymakers is to accelerate the rate of progress as broadly as possible. This final section undertakes an analysis of lessons for policy that can be drawn from the international comparators in this literature review, identifies a cluster of policy directions holding promise for greatest impact on Aboriginal student achievement in Canada, and outlines a research agenda to inform policy and understandings of best practice.

Lessons from International Policy

It is not always the case that successful policies in one context translate directly to another. In interpreting and applying policy approaches and lessons from the international comparators used in this review, Australia represents the closest parallel to the Canadian context. Like Canada, Australia operates as a federal system of multiple states and territories with autonomy over education, possesses significant regional differences and contexts for the delivery of education, and serves highly diverse indigenous populations. New Zealand has a considerably higher proportion of indigenous students, and we have much to learn from its approaches and substantive research base. However, its governance structure is much flatter than Canada's, consisting of only two levels - the state and local school, and its smaller geographic reach presents less diversity in education delivery. At this stage of its evolution, Maori leadership is united, is supported by a number of formal structures and research centres which inform its policy positions at the national level, and enjoys a mature working

relationship with the New Zealand government. This cannot be said to be the case in Canada. Norway has limited similarity to the Canadian context due to its smaller size, flatter governance system (state, municipal and school), and having to address the needs of only one indigenous minority.

Australian policy approaches to reforms in indigenous education are then useful to consider. The most important of these are:

1. A federal approach to steering indigenous education reforms under 21 national goals jointly endorsed by all states/territories and formalized in the *National Aboriginal and Torres Strait Islander Education Policy* in 1999, and refined in 2005, as *Australian Directions in Indigenous Education*.
2. Implementation of these directions carried out through state developed and controlled policies with the support of federal funding.
3. Federal initiatives, such as the *Whole of School Intervention Strategy* and *Aboriginal Voice*, delivered nationally over and above state programs through the Australian Department for Education and Children's Services.
4. A well-established single identification system for indigenous students through the national census.
5. The ability since 2003 to monitor the comparative progress of indigenous and non-indigenous students and report this annually at state and federal levels. All schools must annually report on 24 indicators to be rolled up for reporting purposes.
6. Widespread use of strategic pilot projects conducted in collaboration with local communities. These multi-year and multi-site projects are supported by federal funding, are of a sufficient scale to be informative, and contain an independent research and dissemination component.
7. Recognition of the need to engage local Aboriginal communities in shaping and supporting educational interventions to improve outcomes.

On the other hand, Australia appears to have placed low emphasis on Aboriginal language policies, largely implementing an English submersion approach. New Zealand's language policies and substantive research base have more to offer in terms of what works for delivering instruction in Aboriginal languages. Language of instruction is a significant policy arena for Canada to address, due to the cost and resourcing implications and the diverse number of languages represented in its Aboriginal peoples.

High Impact Levers for Canadian Policymakers

The many challenges confronting Aboriginal education and some promising pockets of success were documented in Canada's *Royal Commission On Aboriginal Peoples* in 1996. Twelve years later, much progress has been made, but coherent and strategic policymaking across levels of government is needed to build capacity in the field and bring isolated successes to scale.

Notable examples of this progress include the comprehensive provincial/territorial action plans and resources dedicated to closing the achievement gap, the enactment of landmark First Nation agreements and legislation, improved data collection, increased dialogue among the various sectors involved, and the sharing of information on best practices. There is widespread support for many fundamental principles of Aboriginal education: the central importance of first language and culture; the value of seamless and broad programs to support FNMI learners; the importance of developing a

cadre of skilled teachers; the need for a holistic approach to schooling and for engaging parents and community in that process; and the imperative to build local leadership and capacity. These commonalities are a strong foundation on which to build and move forward.

Progress continues to be impeded, however, by a number of persistent challenges. Among these are: funding inequities; the supply and development of skilled teachers; infrastructure, governance and capacity issues, particularly in the band-operated sector; delivery of Aboriginal language instruction; the paucity of rigorous research to guide programming decisions; and the absence of data by which to measure progress on a national scale.

Today, Aboriginal education issues are at the forefront of provincial/territorial/and federal agendas and significant initiatives with national reach are under development. Given this readiness among mainstream policymakers and institutions to act, it is important to invest in policies with the greatest potential for leveraging large-scale progress.

The high-impact policies recommended here are drawn from the international research on reducing minority achievement gaps and grounded in the current state of the field in Canada and the best practice findings. Policies of strategic importance in strengthening success across the system and which should take priority include:

- Establishing a pan-Canadian data collection system for a common set of performance indicators used to provide an annual report on Aboriginal education at the national level with jurisdictional breakdowns to be used for improvement planning purposes. This information will play a key role in strengthening policy and programs and enhance public accountability. FNMI governance authorities must play a key role in the design, collection, interpretation, and access to this data.
- Strengthening the capacity of education authorities to govern for continuous improvement. This is particularly needed in the band-operated sector and will require new governance and accountability structures and resources for infrastructure and training.
- Taking all necessary steps to develop a sufficient supply of highly skilled teachers for Aboriginal classrooms and provide the necessary in-school supports through mentoring programs, professional development, and quality teaching resources.
- Ensuring that all schools benefit from effective leadership which is a critical factor in school success. This can be accomplished through establishing FNMI leadership academies to provide specialized training and professional development for principals of schools with high numbers of Aboriginal students. This instructional and leadership expertise should be recognized with credentials which confer higher salary and status.
- Providing dedicated support for school improvement processes which strengthen capacity to use data for goal setting, instructional planning, professional development, and aligning resources. Technical assistance in this area will strengthen internal accountability for student progress. Particular attention and support should be directed to low-performing schools.
- Making reading, writing, and language literacy a priority across the system as the foundation of academic success.
- Investing selectively in Aboriginal language immersion programs through the establishment of Language Institutes which will provide the necessary training, teaching resources, assessments and rigorous research on program effects. Language selection should be based on scale of use, demand, supply of speakers, and long-term viability.
- Expanding full-service programming in schools, with particular emphasis on the development and study of community schools.

- Investing in quality early years programs within schools as a foundation to student success in K-12.
- Building opportunities and capacity for Aboriginal parents and community to actively participate in schools and educational planning.
- Encouraging and supporting partnerships among multiple agencies to promote student and school success. Productively managed, such collaborations can harness additional resources and expertise to solve particular barriers to progress.
- Establishing a comprehensive research program to inform policy and programs. This priority fits well with the current interests of federal and provincial/territorial governments to identify what is working well and which approaches are not.

A Blueprint for Research

Finally, best practice includes recognition of the place of research to guide policy and program decisions. At present, Canada lacks a coherent and coordinated policy-focused research agenda to inform the delivery of Aboriginal education. What kinds of research will be most beneficial?

There is a need for improved measures and data for multiple purposes, beginning with baseline data that can be monitored for changes over time based on inputs. High quality research will provide quantitative measures of relations between identifiable and policy-relevant program features and student success, including the magnitude of effects. High quality research will include control groups for comparative purposes. Quality research will be of sufficient scale to be generalizable, while recognizing the importance of specific context. There are a number of large national data-bases available which could be married with educators' knowledge of the system to positive effect. Good research will also provide cost-benefit analyses of programs and policies evaluated. Large-scale longitudinal studies with strong research design have the greatest potential to inform decisions. There is also a need for developmental research in new areas of programming such as language assessments and curricula which must be normed with populations of sufficient size. Additionally there is a place for study of pilot programs of sufficient breadth to inform decisions about scaling up. Finally, research must not only inform policy but show how best to implement it.

This literature review has suggested many topics for investigation under this research program. Among these are investigation of the comparative effectiveness of Aboriginal language programs; literacy acquisition in a second language; the development and calibration of new language and culturally relevant assessments; teacher preparation programs and effective teacher development; the impact of parent involvement; the relative effects of various community engagement initiatives; community schooling; optimum early childhood programs under various settings and conditions; and independent program evaluations in schools and districts. The identification of high-performing schools in particular program areas would provide valuable success models for study and replication of best practice. To promote knowledge transfer, these schools might be designated as demonstration models and receive additional funding to document their practices and provide coaching to other schools interested in this area of programming.

A multi-pronged national research program of this nature will require a substantive funding commitment to enable both the research and its coordination and dissemination, but can be expected to pay large dividends in improving system performance and educational outcomes for Aboriginal students across Canada.

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Appendix A

Capacity Building Organizations

Please note this is not intended to be an exhaustive list.

The FN Education Steering Council (FNESC)

FNESC provides an exemplary model of governance, leadership and capacity building for First Nations peoples in BC. As well as its work in the First Nations schools sector, FNESC has also played an instrumental role in the establishment of provincial initiatives to improve services to Aboriginal students and families in the public school system. The First Nations Schools Association (FNSA) operates under the FNESC umbrella.

Established in 1992, FNESC works as a collective organization to facilitate First Nations education support, and to communicate with federal and provincial governments to ensure that First Nations concerns are being addressed. FNESC provides relevant information to First Nations about federal and provincial government policies and programs, undertakes research to support effective First Nations education, and facilitates communication amongst First Nations and with other education organizations. FNESC also undertake policy discussions, with explicit direction from First Nations communities, serves as a clearinghouse for information resources and models for First Nations education activities, and provides administrative and technical support to ensure First Nations control and administration of First Nations education programs. FNESC provides support for First Nations involved in the treaty process and was on the negotiating team for the historic. Bill C-34: First Nations Jurisdiction over Education Act which came into force in December 2006.

Inuit Tapiriit Kanatami

Inuit Tapiriit Kanatami is the national voice of Canada's Inuit. Founded in 1971, the organization represents and promotes the interests of Inuit. The ITK has been effective at advancing Inuit interests by forging constructive and co-operative relationships with different levels of government in Canada, notably in the area of comprehensive land claim settlements, and representing Inuit in the constitutional talks of the 1980s. Through a consultative and consensus seeking model, the ITK provides leadership in identifying challenges and solutions and seeks to become a centre of excellence for Inuit knowledge. In its role as an advocate for policy reforms to benefit Inuit people, the ITK is mobilizing support among all levels of government for actions required to improve educational outcomes for the Inuit. Through the commissioning of background research and the development of position papers and convening of Education Summits, the ITK has articulated goals and strategies necessary to achieve a more successful education system.

The Mi'kmaq Kina'matnewey

The Mi'kmaq Kina'matnewey (MK) represents 10 small Mi'kmaq communities in Nova Scotia, serving as their collective voice for education. Its mission is to facilitate the development of innovative alternatives and to actively promote excellence in Mi'kmaq education, and the interests and rights of member communities. The MK is very flat organization, whose Board of Directors is made up of the chiefs of participating communities. Although each community controls its own

schools, funding for Mi'kmaq education flows through the MK under five year agreements with INAC. MK Education Directors in collaboration with the Mi'kmaq Education Working group, create curricula and resources, policies and procedures handbooks, a guide for school improvement planning and reviews, teacher certification, language instruction, and best practices research. A recent review in Nova Scotia noted the valuable expertise that resides in the MK.

Northern Ontario Education Leaders (NOEL)

NOEL is a non-profit consortium of eight school boards in Northwestern Ontario serving large numbers of Aboriginal students. NOEL serves as a collaborative forum where directors, principals, teachers, and school board staff can discuss issues of common concern, and develop joint projects and optimize budget resources to directly benefit students. NOEL's Aboriginal education projects include the development of a policy for voluntary Aboriginal student self-identification, a parental involvement strategy, and early and late literacy interventions for Aboriginal learners. NOEL boards also received Ontario Ministry of Education funding for innovative projects to reduce Aboriginal youth drop-out rates and provide successful alternative pathways to work. Most recently, with Ministry support, NOEL has engaged in a multi-year initiative to enable and implement effective evidence-based decision making in all Ontario school boards. This initiative, entitled Managing Information for Student Achievement (MISA), assisted the school boards in acquiring capacity to integrate a variety of data sources including student management, standardized testing, and legacy systems, into a single integrated data mart for reporting and analysis.

The Assembly of First Nations (AFN)

AFN is the national organization representing First Nations citizens in Canada. It's vision for education is: "All First Nations learners will achieve their full potential supported by a comprehensive system under First Nation jurisdiction that addresses their intellectual, spiritual, emotional and physical needs through quality lifelong learning, grounded in First Nations' languages, cultures, traditions, values and world views." Guided by the Chiefs Committee on Education (CCOE), regional representatives, the National Indian Education Council (NIEC), First Nations experts in education, and partnerships with education organizations, AFN works to carry out its mandate in education to:

- consult, inform and coordinate with First Nations in all regions on education issues and assist First Nations by lobbying governments on their behalf through policy development and analysis;
- advance the development of quality First Nations education systems through projects and initiatives inclusive of elementary/secondary education, special education, post-secondary education, jurisdiction, funding, accountability, languages and culture; and
- increase educational attainment and opportunities for First Nations students and youth.

The Chiefs of Ontario, an AFN affiliate, provided comprehensive feedback to the Ontario Ministry of Education's Draft Aboriginal Education Policy Framework during provincial the consultation process (Chiefs of Ontario, 2006). Their website provides numerous resources for educators in First Nations schools.