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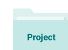

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Supporting Young Indigenous Children's Language Development in Canada: A Review of Research on Needs and Promising Practices

Jessica Ball

Abstract: This article offers an original review of research and reports about young Indigenous children's language development needs and approaches to meeting them. The review addresses not only children's acquisition of an Indigenous language but also their acquisition of other languages (e.g., English and French), because their progress in one linguistic domain affects their progress in others. Indigenous children have inequitable access to supports for optimal health and development and experience persistently high rates of academic failure. A search of peer-reviewed literature yielded no empirical studies that systematically assessed Indigenous children's language development and no controlled studies that evaluated the outcomes of early language facilitation programs or early interventions. Investments in culturally appropriate supports for optimal language development of young First Nations, Métis, and Inuit children are relevant to a range of policy areas, including Residential School healing programs, social justice, education, literacy, community development, employment, and literacy.

Keywords: Indigenous, Aboriginal, First Nations, Métis, Inuit, young children, language development, speech-language delays, culturally appropriate, cultural safety, early interventions

Résumé : Cet article offre une revue originale des recherches et des rapports de recherche sur les besoins des enfants autochtones en matière de développement du langage et sur les méthodes pour y répondre. Il porte non seulement sur l'acquisition par les enfants d'une langue autochtone, mais aussi sur leur acquisition d'autres langues (par exemple, l'anglais et le français), car leurs progrès dans une langue influence leurs progrès dans d'autres langues. Les enfants autochtones n'ont pas tous accès de manière équitable à des services de soutien optimaux en matière de santé et de développement et on observe toujours chez eux un taux élevé d'échecs scolaires. L'examen de la documentation évaluée par des pairs n'a mis au jour aucune étude empirique qui évalue systématiquement le développement du langage chez les enfants autochtones et aucune étude vérifiée qui évalue les résultats des interventions ou des programmes de facilitation précoce de l'apprentissage de la langue. Le

© 2009 *The Canadian Modern Language Review/La Revue canadienne des langues vivantes*,
66, 1 (September/septembre), 19–47 doi:10.3138/cmlr.66.1.019

financement de mesures de soutien adéquates, sur le plan culturel, pour le développement optimal du langage chez les jeunes enfants des premières nations et des enfants métis et inuits est pertinent dans une série de secteurs de dépenses, notamment les programmes de ressourcement pour les victimes des pensionnats, la justice sociale, l'éducation, l'alphabétisation, le développement communautaire, l'emploi et la littératie.

Mots clés : Amérindiens, Autochtones, premières nations, Métis, Inuits, jeunes enfants, développement du langage, retard du langage ou de la parole, culturellement adéquat, sécurité culturelle, interventions précoces

Reports from community-based programs, educators and speech-language pathologists suggest that Indigenous[1] children in Canada tend to show unique language learning profiles as well as high needs for early language stimulation programs to prevent speech-language delays and difficulties that will interfere with their learning and overall development. In addition, there is growing alarm about endangerment and loss of Indigenous languages, as fewer young children are learning their mother tongue (Norris, 2006). New questions are also being asked about whether educators and speech-language pathologists are failing to recognize or accept Indigenous dialects of English or French that may contain vestiges of Indigenous languages (Ball & Lewis, 2006; Ball & Bernhardt, 2008). Despite some progress in recent years (Bell, 2004), persistent gaps remain in Indigenous children's school readiness (Chalmers, 2006; Mendelson, 2008) and subsequent academic achievement at all levels of education (Canada Council on Learning, 2007).

Indigenous leaders, parents, and early childhood educators (ECEs) recognize the rapid development of speech and language in the early years and the foundational role of language development in supporting other developmental domains and academic success (Battiste, 2000; Hébert, 2000). They have therefore called for greater investment in strategies to ensure that young Indigenous children have the foundations of language to prepare them to succeed in school and that they have opportunities to learn their Indigenous language if their parents so desire (Battiste, 2000; Norris, 2008; RCAP, 1996). Responding to this emphasis on the early years, the present review focuses on language development of Indigenous children from birth to five years of age, before they enter formal schooling. The article summarizes what is known about language development needs of young Indigenous children in Canada and about early intervention programs to support their language development.

The literature review described here set out to identify (a) published, peer-reviewed, empirical research documenting speech-language trajectories, strengths, difficulties, and secondary communication issues among young Indigenous children and (b) controlled research evaluations of speech-language promotion and early-intervention strategies delivered to Indigenous children or families. Remarkably, the search yielded no studies fitting these descriptions. Some literature does exist reporting small-scale studies of children's Indigenous language acquisition, particularly of Cree (e.g., Brittain, Dyck, Rose, & MacKenzie, 2006; Hough-Eyamie, 1999); Inuktitut (Zwanziger, Allen, & Genesee, 2006); Algonquin (Pesco & Crago, 1996); and Mohawk (Peter, Hirata-Edds, & Montgomery-Anderson, 2008). However, the data available for developing theoretical understandings of Indigenous language acquisition in childhood are inadequate to provide direction for early identification of developmental difficulties or for early-intervention strategies, which is the focus of this review. In contrast, a somewhat more extensive research literature is available relating to Indigenous children in the United States (e.g., Kay–Raining Bird & Vetter, 1994; McCarty, Watahomigie, &Yamamoto, 1999; Valdes, 2001) and Australia (Simpson & Wigglesworth, 2008).

The informal, localized, and fragmented nature of knowledge about the language development and needs of Indigenous children in Canada is further complicated by the perennial challenges of cross-cultural research and controlled evaluation studies involving young children in applied settings (Leadbeater, 2006), compounded by rapidly changing expectations for research ethics and methodologies involving Indigenous peoples (Ball, 2005; Ball & Janyst, 2008; CIHR, 2007). Nevertheless, the lack of knowledge and guidelines for effective practice underscore the urgency of tackling these challenges and investing in applied research both to determine the nature and distribution of language learning strengths and difficulties experienced by young Indigenous children and to evaluate effective strategies to support optimal language outcomes.

High needs in a high-growth population

Creating a picture of young Indigenous Canadians' language development and needs in order to inform policy and practice necessarily involves a reliance on proxies, such as demographic data, and on a variety of informal sources, including non-formal reports from community-based, provincial, and federal programs ('grey' literature);

consultations with scholars and community-based leaders working on Indigenous children's speech-language and/or literacy; anecdotal reports gleaned from Indigenous child care conferences; and research that is pertinent to but not specifically on Indigenous children's early language. Filling gaps in research-based knowledge to inform program investments is a high priority in Canada, for several reasons.

Demographic cascade

While Indigenous peoples make up 3.8% of the total population of Canada, their birth rate is nearly twice that of non-Indigenous Canadians, and the Indigenous population is younger than the population overall by about 10 years (Statistics Canada, 2006). With increasing numbers of Indigenous children entering schools, new knowledge is needed to inform effective innovations that support their academic success while supporting Indigenous parents' goals for their children with respect to learning Indigenous languages, English, and French.

The foundational role of early language development

Language skills contribute in fundamental ways to learning in all other developmental domains and make learning at later ages more efficient and therefore easier, more self-motivating, and more likely to continue (Shonkoff & Phillips, 2000). Greater language proficiency can increase the probability of school success, opportunities for employment, and economic security (Bird & Akerman, 2005). Decades of research in neuroscience, developmental psychology, and economics have produced evidence that early interventions supporting the language development of disadvantaged children have much higher returns than later interventions after children have started formal schooling (Cleveland & Krashinsky, 2003; Doherty, 2007; Heckman, 2006).

Embodiment of culture in language

Language is central to how children gain access to cultural knowledge and learn to participate within their cultural communities (Kirkness, 2002). Increasingly, Indigenous children are not likely to learn their Indigenous language as a first language (Statistics Canada, 2006). Fluent speakers of Indigenous languages are concerned that without their languages, their cultures will be lost, since it is impossible to translate the deeper meanings of words and concepts into the languages of other cultures (Ermine, 1995; RCAP, 1996). Indigenous

scholars assert that when Indigenous children learn their Indigenous language from infancy, they are able to consolidate a culturally cohesive Indigenous identity with links to the land, to traditional knowledge, to community elders, and to their communities of origin (Battiste, 2000; Crystal, 1997; Hébert, 2000; Norris, 2006). A task force on Indigenous languages and cultures summarized their consultations with Indigenous adults across Canada: 'Many stated that the ability to speak one's own language helps people to understand who they are in relation to themselves, their families, and their communities, and to Creation itself' (Canadian Heritage, 2005, p. iv). Indigenous parents vary widely in their preferences as to whether their children should learn an Indigenous language first, concurrently, secondarily, or not at all (Ball, 2006); education programs and clinical services should support parents' goals for their children's language acquisition and their preferences with respect to addressing language delays or disorders.

Equity

It is generally believed, though not well documented, that Indigenous children are especially at risk of language delays that can harm their prospects for good jobs and a healthy life (Canada Council on Learning, 2007). The Standing Committee on Human Resources Development and the Status of Persons with Disabilities (2003) summarized reports indicating that a significant proportion of Indigenous infants and young children have special needs, including speech-language delays and disorders and learning disabilities. In Canada, many programs for children with special needs or identified as 'at risk' are least accessible to children and families living in rural, remote, and northern communities – where more than 40% of Indigenous children live (deLeeuw, Fiske, & Greenwood, 2002; Statistics Canada, 2006). A basic principle in Canada is that regardless of where children live, programs to promote their optimal development should be accessible, available, and linguistically and culturally appropriate to them (Canadian Centre for Justice, 2001).

Contexts of Indigenous children's language acquisition

Unique features of the historical and contemporary political and social environments of Indigenous children and families in Canada create unique challenges for inter-generational transmission of Indigenous

languages and for Indigenous children's language development in general.

Historical conditions: Residential school effects

The devastating effect of colonial policies and practices in Canada's Indian residential schools in the nineteenth and twentieth centuries was to instil a belief among Indigenous parents and grandparents today that their language was inferior and their forms of social interaction were unacceptable (Wesley-Esquimaux & Smolewski, 2004). Most children in residential schools were required to stop speaking their home language, stop communicating with their siblings, repudiate their cultures, and relinquish their Indian names (Miller, 1996). As a result, many of today's Indigenous parents and grandparents not only lost their capacity to speak their heritage language but also lost their confidence in their ability to use *any* language effectively (LaFrance & Collins, 2003). Even more fundamentally, many lost confidence in their capacity to engage in the kinds of care-giving social interactions that promote attachment and intimate social interaction, which are the primary vehicle for the transmission and stimulation of language in infancy and early childhood (Chrisjohn & Young, 1997). As Hart and Risley (1995) have shown, everyday family interactions are the primary context for developing and enjoying vocalization and speech communication. Young parents who were not raised by their own parents, and older parents who experienced poor modelling or abuse from teachers and attendants at residential schools, may require specialized support to learn how to engage in spontaneous, nurturing language-mediated interchanges with their children (Mussell, 2005; Wesley-Esquimaux & Smolewski, 2004). Service providers and policy makers need to appreciate language development as an aspect of intergenerational family development that is relevant to a range of policy areas, including residential school healing programs, social justice, community development, adult education, employment, and literacy.

Ecological contributors to learning challenges

While some Indigenous families are thriving, a large number are struggling. Challenges evident in the 2006 census include low levels of education, low employment rates, poverty, substandard living conditions, and geographic isolation with associated poor access to services. Indigenous children are twice as likely as non-Indigenous children to live in lone-mother-headed households, which increases their

likelihood of growing up in poverty (Statistics Canada, 2006). Overall, 52.1% of Indigenous children live below the poverty line – a poverty rate higher than that of other legislatively defined equity groups, including visible minority children and children with disabilities. Research has shown that, in general, children in low-income households are up to twice as likely to have delayed cognitive development and delayed language skills (Canada Council on Learning, 2007).

Contributing health problems

Despite some improvements in recent years, disparities persist between Indigenous and non-Indigenous children in terms of overall health and access to health services, particularly for First Nations children living on reserve and in remote, isolated, and northern communities (deLeeuw et al., 2002; Health Canada, 2005; Leitch, 2008). Prevalent health conditions among young Indigenous children that must be considered in conceptualizing holistic approaches to language promotion include acute illnesses, such as otitis media, that result in permanent disabilities, such as hearing impairment; chronic illnesses such as early-onset diabetes; dental caries; respiratory illnesses; iron deficiency; fetal alcohol syndrome disorder; attention disorders; and specific learning disabilities (First Nations Centre, 2005). Of particular concern in relation to language development is that the prevalence of middle-ear infections (otitis media) has been found to be much higher among Indigenous children than among non-Indigenous children (e.g., Scaldwell & Frame, 1985). Based on epidemiological studies around the world, Bluestone (1999) has reported that Aboriginal children in Canada have the highest incidence of chronic suppurative otitis media in the world, with between 7% and 31% of children affected. Incidence of otitis media is especially problematic in the high Arctic, where, on average, 67% of children have suffered some hearing loss by the time they reach school age (Bowd, 2005; WHO/CIBA, 1996).

Overall, the conditions for Indigenous children's development are so alarming that in 2004 the Council of Ministers of Education stated that

> There is recognition in all educational jurisdictions that the achievement rates of Aboriginal children, including the completion of secondary school, must be improved. Studies have shown that some of the factors contributing to this low level of academic achievement are that Aboriginals in Canada have the lowest income and thus the highest rates of poverty, the highest

rate of drop-outs from formal education, and the lowest health indicators of any group. (2004, p. 22)

Estimating the nature and distribution of language challenges

Knowledge gaps

A lack of research evidence of Indigenous children's language development needs is attributable to several factors that should be addressed. First, because Canada lacks a national system for monitoring children's health and development (Leitch, 2008), there are no population-based data to characterize developmental trends among populations of First Nations, Métis, and Inuit children with respect to speech-language development or for estimating the prevalence, nature, or geographic distribution of speech-language or literacy delays, difficulties, or other 'special needs.' On this point, a recently released post-census survey of primary caregivers of 10,500 Indigenous children six months to five years of age (excluding most children living on reserves) will yield some data on language development trajectories and special needs (Statistics Canada, 2008). Second, the two national longitudinal cohort studies of the growth and development of Canadian children and youth (*National Longitudinal Study of Children and Youth* and *Understanding the Early Years*) did not systematically sample Indigenous children. Third, many young Indigenous children are not seen by health and developmental specialists (e.g., community health nurses, infant development consultants, child care practitioners, speech-language pathologists, paediatricians). Fourth, speech-language services are extremely limited for children living on reserve, since this is not a benefit provided by the federal government and many communities cannot afford to allocate funds from other programs to contract for this ancillary service. Fifth, less than 20% of Indigenous children have access to child care programs where their speech-language development could be monitored and difficulties noticed (Leitch, 2008).

Finally, there are no monitoring, screening, or diagnostic tools that have been validated for use with Indigenous children (Ball, 2002; Centre of Excellence for Children and Adolescents with Special Needs, 2005). Screening and assessment tools currently in use in Canada have been developed and normed in research predominantly involving children of European heritage, in urban settings, whose first language is English or French. Indigenous parents and

practitioners have expressed frustration with culturally inappropriate assessments that label their children deviant or deficient, when it seemed to them that the assessment content and scoring were culturally biased and inappropriate and that the process was too unfriendly to children who were not used to being asked seemingly arbitrary questions by a stranger in an unfamiliar testing situation (Ball & Lewis, 2006). Further, the concept of 'testing' and scoring children's speech-language development may be viewed by some Indigenous parents as discordant with cultural values that affirm the 'gifts' of each child, acceptance of children's differences, and the wisdom of waiting until children are older before making attributions about their abilities (Stairs & Bernhard, 2002). A national survey of 70 speech-language pathologists whose primary practice was with young Indigenous children (Ball & Lewis, 2004) found that 75% of these practitioners perceive a critical need to develop new approaches for screening and assessing Indigenous children, using experientially relevant content and tasks within the context of relationships of familiarity and family involvement. Huge gaps in basic knowledge about the variety and nature of Indigenous children's language environments and parents' goals for their language acquisition are obstacles to the development of valid assessment tools and effective interventions that do not also have the potential to interfere with children's learning to use either or both an Indigenous language and French or English, according to norms in their own speech communities (Ball & Bernhardt, 2008). Until new screening and assessment tools have been developed, or until the validity of existing tools and culturally specific norms has been established, assessments of Indigenous children's language development produced by commonly used tools need to be interpreted and acted upon with extreme caution.

In a recently completed study involving two First Nations and two Indigenous community programs in British Columbia (Ball, 2006), another commonly expressed concern was that often there are no follow-up services available to children who have been identified by ECEs, teachers, or community health nurses as needing such services. Lack of follow-up service is the result of a number of barriers, including ineligibility for services to Status Indian children living on reserves; long waiting lists for services in urban centres; and inaccessible services for children living in rural and remote areas, where distances are too great, transportation costs are not covered, there is no one to accompany the child, and so on. Given the foundational role of language development to other developmental domains and the persisting equity gaps in Indigenous children's academic readiness and

attainment, it is imperative to find ways to provide timely diagnostic assessment and early intervention to children who are in need of these services.

Views from Indigenous leaders

Many Indigenous parents, elders, and leaders have argued that culturally inappropriate education, specialist services, and assessment procedures, as well as lack of services, frequently have serious negative consequences for their children (BC Aboriginal Network on Disability Society, 1996; Canadian Centre for Justice, 2001; First Nations Child and Family Caring Society, 2005; RCAP, 1996; Stairs & Bernhard, 2002). Perceived negative outcomes include over- and under-recognition of children with developmental challenges; services directed at a misinterpretation of the primary problem; services introduced too late; undermining of parents' goals for children to learn their heritage language and culture through an over-valuing of standard urban English and monolingualism; cultural alienation; and low levels of school readiness. The nature and scope of misguided practice with young Indigenous children are as poorly understood as the nature and extent of true need.

Views from service providers

A convergence of reports from community-based practitioners compiled by regional and national offices suggests a high prevalence of language delays and disorders among Indigenous children. For example, a 2002 report on Aboriginal Head Start programs provided to Indigenous children living off-reserve states that the most prevalent form of developmental delay among Indigenous children in urban and northern communities is a speech-language delay (Health Canada, 2002). Similarly, a task force of the Centre of Excellence for Children and Adolescents with Special Needs reported that, among 59 Indigenous early learning and child care centres surveyed, the largest proportion of diagnoses of special needs involved speech-language deficits and delays (de Leeuw et al., 2002). At national and provincial conferences and training workshops for Aboriginal Infant Development and Early Childhood programs, practitioners have repeatedly identified language as the area of greatest need for early detection and intervention. School-based indicators are another proxy of delayed and weak language development; as noted, it could be inferred from high rates of school failure among Indigenous

children and youth that Indigenous children start school with high rates of language and literacy difficulties or delays (Canada Council on Learning, 2007). In British Columbia – the only province in which student numbers include an identifier for Indigenous children enrolled in public schools – the provincial Ministry of Education found that in 2003, 16% more Indigenous students than non-Indigenous students were 'not meeting expectations' in Grade 4; in Grade 7, the discrepancy rose to 21% (Bell, 2004).

Decrements in transmission of heritage mother tongue

The number of Indigenous children who are learning their Indigenous mother tongue is steadily declining (Norris, 2006). This is a grave concern for the Assembly of First Nations (1999), First Nations scholars (e.g., Kirkness, 1998), linguists (e.g., Philipson, 1992), and others. According to analyses of census data by Norris (2006), only 12.4% of Indigenous children under four years of age speak an Indigenous language at home, and another 5% speak an Indigenous language as an additional language. About two-thirds of these are Inuit children, and one-third are First Nations children living on reserves. Children whose home or preschool supports them in learning an Indigenous language almost invariably have to learn English or French as the medium of instruction when (or if) they attend school. Some researchers have warned that this mainstreaming of Indigenous language speakers into education that uses English or French as the medium of instruction beginning in kindergarten or Grade 1 is a form of 'linguistic genocide' (Day, 1985), predicting that English and French will continue to replace Indigenous languages until there are no native speakers left. In Labrador, 35% of Innu children never attend school; according to Philpott (2006), this is partly because those who do attend are plunged into an alien cultural environment and language of instruction.

Varieties of English or French

In the study of 70 speech-language pathologists referred to earlier, 83% reported that they had observed three or more unique features of Indigenous children's English; as a group, these practitioners generated a litany of phonological, syntactic, and pragmatic features of Indigenous children's language that appear to constitute distinctive English dialects (Ball & Lewis, 2004). These linguistic features may be vestiges of children's Indigenous language carried over to English

or French, producing dialects unique to particular heritage language groups. A recent exploratory study documented what is known about Indigenous English dialects in Canada through linguistic research and applied practice, and proposed research methodologies for future research (Ball & Bernhardt, 2008). This first step has stimulated a handful of studies currently in progress on distinctive phonological, syntactic, and pragmatic features of spoken English among various Indigenous groups in Canada, as well as efforts to characterize current policies and practices in provincial programs focusing on English as a second dialect. As yet, there is little understanding of the extent to which speech-language problems perceived in Indigenous children are due to divergent expectations about expressive forms of the dominant language. A reasonable hypothesis is that children's use of a non-standard variety of English or French may be misinterpreted by teachers or speech-language pathologists as a language delay or language deficit, contributing to the alarmingly high estimates of speech-language pathology among Indigenous children. This possibility and alternative approaches to identifying and addressing Indigenous children's language support needs have been discussed by Australian educators and speech-language pathologists (see Simpson & Wigglesworth, 2008). To reduce the probability of false positive interpretations of language pathology, research is needed on Indigenous English and French dialects in order to devise criteria and assessment strategies that can differentiate between speech-language disorders and sociolinguistically normative characteristics of communication in Indigenous families and communities. Research is also needed to track the pace, sequence, content, form, and pragmatics of young Indigenous children's language development when they are growing up in a heritage mother tongue or in an English or French dialect (Ball & Bernhardt, 2008).

Language mismatches at school entry

Several Canadian investigators have reported unique difficulties confronting children who start kindergarten speaking a language or dialect different from the language of instruction (Crago, 1990; Wilgosh & Mulcahy 1993; Wright, Taylor & Macarthur, 2000). In Australia, 'Aboriginal English' has been described as the main language of 80% of Aboriginal Australians (Speech Pathology Australia, n.d.); Walton (1993) notes that communication and academic difficulties can arise for Aboriginal children in Australia whose home language is a variant of the dominant dialect of the language of

instruction in school and whose socialization at home conveys values about the pragmatics of linguistic communication that do not match mainstream language values embedded in the culture and pedagogy of public schools. These observations reinforce Heath's (1983) finding that children whose home culture values listening, observing, and doing as a primary learning mode are more likely to be marginalized in a typical mainstream school, where a high value is placed on verbal explanations and oral participation.

Need for school-based bridging programs

Indigenous children whose home language is either a nonstandard variant of English or French or an Indigenous language, need transition programs to support ongoing acquisition of the language(s) or dialect(s) they have at school entry while preparing them to succeed in the language of instruction (Philpott, 2006; Walton, 1993). Pioneering work has been done in Australia on school-based programs in English as a second dialect (ESD), which are intended to help Indigenous children learn to code-switch from their Indigenous English dialect to the variety of English used in school (Malcolm et al., 1999). Several Canadian provinces have recently introduced policies and funding to support school-based ESD programs; however, no reports have come to light on the extent or nature of ESD initiatives involving Indigenous children. The potential of the ESD concept and ESD funding to evolve a strengths-based, culturally appropriate pedagogy to support Indigenous children's language and literacy is emerging as a topic of considerable interest among educators and speech-language pathologists in British Columbia, Manitoba, and Ontario. Investigators need to collaborate with schools to design, test, and document programs for children who need to acquire 'school English' as a second dialect.

Approaches to meeting Indigenous children's language development needs

There are no known controlled studies evaluating the effectiveness of language stimulation or early-intervention strategies involving young Indigenous children in Canada. It is estimated that at least 80% of Indigenous children do not have access to any quality early development program with an Indigenous component (Battiste, 2005; Canada Council on Learning, 2007; Leitch, 2008). In 2003, the OECD Education Directorate reported that development programs and

specialist services for Indigenous children are severely lacking (Bennett, 2003) and that mainstream programs involving Indigenous children tend to lack cultural sensitivity and opportunities for learning or maintaining Indigenous language or culture.

These criticisms notwithstanding, a few promising steps have been taken over the past decade. In 1995, the federal government committed funding to establish a First Nations/Inuit Child Care Initiative, a fundamental principle of which was that First Nations and Inuit would direct, design, and deliver programs for young children in their communities. A review of unpublished program literature, Web sites, newsletters, and agency reports yielded a plethora of examples of community-based programs drawing on this funding, including home visiting programs designed to enhance positive caregiving, language stimulation, and family literacy and community programs for families with young children involving music and movement, story-telling, socialization, and parenting skills.

Aboriginal Head Start

Aboriginal Head Start (AHS) is the most extensive and culturally based initiative, funded in communities on reserves by Health Canada and for children living off-reserve by the Public Health Agency of Canada. AHS serves approximately 10% of First Nations, Métis, and Inuit children between three and five years of age. Intended to address disparities in educational attainment of First Nations, Métis, and Inuit children compared to non-Indigenous children, these programs share the goal of the original Head Start programs in the United States (Zigler & Valentine, 1979): preparing children for a successful transition from home to school learning environments. The Canadian adaptation of Head Start emphasizes culturally fitting, community-specific elaborations of six program components: (1) culture and language; (2) education and school readiness; (3) health promotion; (4) nutrition; (5) social support; and (6) parent/family involvement. In most communities, efforts are made to hire Indigenous staff, though they are in short supply. Staff trained in early childhood education work with Indigenous elders, Indigenous language specialists, traditional teachers, and parents to enhance child development, cultural pride, and school readiness among young children. Most programs both on and off reserve operate primarily in English or French, with some exposure of children in some programs to one or more Indigenous language.

To date, there has been no research evaluating the impacts of AHS programs on reserves. Approaches to measuring the impacts of programs on Indigenous children's development, including their language development, have been fraught with difficulties, partly because of the lack of appropriate instruments for measuring Aboriginal children's development in ways readily amenable to standardized scoring and composite analysis. A national impact evaluation of AHS in urban and northern communities has been attempted, but a comprehensive report has not yet been released, and no comparison or control groups were examined. A preview of the evaluation results indicates that parents reported increases in their children's practice of Aboriginal culture and traditions, and in Indigenous language acquisition (L. Robertson, personal communication, 2008), but no direct measurement of children's language proficiency was conducted. An evaluation of AHS sites in the Northwest Territories (NWT), undertaken from 1996 to 2006 by the Western Arctic Aboriginal Head Start Council (Chalmers, 2006), concluded that many AHS children came to the program with deficits in language and social skills and that most showed some improvement after one year in AHS. Again, the most positive findings came from parent and community ratings of the culture and Indigenous language components of the program. The evaluation concluded that one of the strongest features of the AHS movement in NWT is the site-specific identity, focus, and dedication to the promotion of local culture, language, and traditions. Another perspective on the impact of AHS comes from the First Nations Regional Health Survey (First Nations Centre, 2005), which indicates that participating in at least one year of AHS reduces a child's risk of repeating a grade in elementary school. Informal reports at gatherings of organizations involved with Indigenous children and families often identify AHS as the most positive program in Canada for Indigenous families with young children, and receiving funding to develop an AHS program is identified as a top priority in many communities. A recent report by the child and youth health advisor to the federal minister of health recommends doubling the number of spaces for Indigenous children in AHS (Leitch, 2008).

In contrast to 'quick fix' innovations rolled out and pulled back with the turning of political tides, AHS, for over a decade, has established credibility with Indigenous families, built a cadre of trained and experienced program staff, accumulated a wealth of anecdotal reports and program examples, and taken some initial steps toward documenting outcomes for children. Although more work is needed to establish research-based evidence of the ways in which AHS

affects Indigenous children's quality of life and developmental outcomes, the program has a number of positive and promising features that are highly congruent with principles advocated by many Indigenous organizations. AHS programs provide safe, supervised, stimulating environments for young children. Many programs provide nutrition supplementation; cognitive stimulation; socialization with Indigenous peers, adult role models, and elders; and exposure to Indigenous language and spirituality. These opportunities are valued by parents and promote children's health and development as well as their cultural knowledge and pride.

While some provinces are encouraging the downward expansion of public schools to encompass more programs for preschoolers from three to five years of age, centralizing programs in public schools is not necessarily the most promising approach to resolving problems of access for many young Indigenous children. Canadian public schools have yet to demonstrate that they can grasp and effectively address the historically conditioned needs and goals of Indigenous families and ensure their cultural safety and dignity (Canada Council on Learning, 2007). Programs operated by public school districts tend to reproduce dominant cultural understandings of the place of Indigenous peoples in Canadian history and society, their characteristics and lifestyles, and what children and parents need to do and should be doing to promote children's 'school readiness' and 'success.' Unlike public-school-based programs, the community-based and locally operated AHS program model serves the dual purposes of improving conditions for Indigenous children's health and development and contributing to Indigenous capacity, self-determination, and cultural revitalization.

Principles of culturally appropriate practice

To date, nearly all approaches purporting to be 'best practices' or 'evidence-based' models for early identification of language or literacy delays, language facilitation, and intervention have been developed and tested with English- or French-speaking children and families of European heritage. Understanding cultural variations in language socialization heightens awareness of the potential cultural biases in programs focusing on the interaction patterns of parents and their children with delayed language development. Van Kleeck (1994) recommends a thorough exploration, in each new cultural context, of several key areas that may vary significantly from one family or social group to another, including (1) aspects of social organization

related to interaction; (2) the value of talk; (3) how status is handled in interaction; (4) beliefs about intentionality; and (5) beliefs about teaching language to children. Language facilitation and intervention approaches that are incongruent with Indigenous caregivers' goals for their children may be ineffective and may even work in undesirable ways (e.g., undermining Indigenous parents' confidence in their knowledge of how to support their children's development). Crago (1992, p. 37) warns that

> practitioners who are ignorant of, or refuse to alter their practices in ways that recognize the strength of cultural patterns of communicative interaction can, in fact, be asserting the hegemony of the mainstream culture and can thereby contribute, often unknowingly, to a form of cultural genocide of non-mainstream communicative practices.

Family- and community-centred approaches

Reinforcing this perspective, the Royal Commission on Aboriginal Peoples (1996) identified *family development* and *community-based programs* for children and families as the two most promising entry points or sites for language facilitation, support, and early detection of needs for extra support. Family-centred programs to support Indigenous children's optimal language acquisition involve primary caregivers in a variety of home-environment, community-wide, and centre-based activities that stimulate elaborated use of the home language (whether that language is English, French, an Indigenous language, or non-standard variety) and that model and reinforce the kinds of social interactions that promote children's communicative competence and confidence. In cultures that have been disrupted, and for individuals who have been displaced – as has happened to most Indigenous peoples – contextual and communal responses can have significant positive effects. Programs that involve the community are also more likely to be well used and sustainable. Efforts to support Indigenous children's language development should implement and evaluate culturally grounded approaches developed in consultation with families and communities as demonstration projects.

An important criterion for evaluating the effectiveness of initiatives to support Indigenous children's language and literacy may be the extent to which they support culturally based language socialization practices. For example, relevant indicators may include the extent to which children are learning their heritage language, learning socially

appropriate conversational turn-taking behaviours, learning to listen and watch adults without speaking, and learning to report on events in ways that conform to social expectations about how information is shared (e.g., amount of context, detail, self-reference, chronological sequencing). In some settings, the extent to which parents are acquiring their Indigenous language, enabling them to use that language with their children at home, may be an appropriate outcome measure.

Indigenous language learning

Educators and speech-language pathologists who have critically examined the apparent fit between their goals and Indigenous parents' goals for children's language development have underscored the importance of getting to know what matters to Indigenous parents and responding in ways that ensure parents' involvement (Ball & Lewis, 2004; Stairs & Bernhard, 2002). Like members of any cultural group, First Nations, Métis, and Inuit parents have diverse goals and opinions about their heritage language, English, and French, as well as about formal schooling. A recent study found that among 60 First Nations parents and elders, Indigenous language acquisition was a priority for many, though by no means all (Ball & Lewis, 2006). Some research suggests that isolated and/or well-organized Indigenous communities with large numbers of resident speakers tend to have more viable Indigenous languages and to place more value on Indigenous language transmission (Norris, 2006). Indigenous families in cities are less likely to use an Indigenous language at home (Statistics Canada, 2006).

Some parents may be concerned that mainstream ECEs, teachers, and speech-language pathologists will focus only on children's acquisition of standard school dialects of English or French, without including instruction to maintain or develop the proficiency of their child's Indigenous language or their home dialect of English or French. Parents may be concerned that their child will become acculturated to the cultural values and pragmatics of standard school English or French, losing their identification with their culture and language of origin. Yet educators and language specialists can play important roles in helping children and their families successfully navigate the journey toward bi-/multilingualism, providing encouragement for use of the heritage language at home – whether this is an Indigenous language, a mixed language, or a variety of English or French – and working as allies in either mother-tongue-based early education or dual-language programs.

The language transmission and acquisition goals of Indigenous parents in Canada seem to vary significantly depending on geographic

location, the number of Indigenous language speakers in a community, and the vocational prospects for children when they become adults (Ball & Lewis, 2006). The processes and dynamics of language transmission have been a focus of research and program innovation (Burnaby, 2002), but these are beyond the scope of this review. A search for research-based evidence of the outcomes of Indigenous language acquisition programs in Canada for children from birth to five years of age yielded no published reports. Norris (2006) has recently reviewed available evidence gleaned largely from demographic data and programs described in the grey literature; her review suggests that the best conditions for a child to learn an Indigenous language as a first language occur within Indigenous communities, among families where the language has a strong presence in the home, when one or both parents have an Indigenous mother tongue, and in communities where Indigenous languages are flourishing. Most Indigenous children in Canada do not live in these conditions.

Immersion programs

In the face of the ongoing loss of Indigenous languages, there has been a recent surge of interest among Indigenous communities in full immersion preschools and primary schools, as well as in 'language nest' programs for infants and toddlers. Immersion approaches to acquiring a non-dominant language in a dominant-language milieu appear to have begun in Quebec as a strategy to preserve French. 'Language nest' immersion programs (*te kohanga reo*), starting soon after birth, were pioneered by Maori peoples of Aotearoa/New Zealand in 1982 as a way to stabilize Maori language (Harrison, 1998; McIvor, 2005). To date, there are no known reports of research evaluating the effectiveness of these programs. In 1984, Hawaiians began an immersion preschool program called Kamehameha Preschools, based on the model of Maori language nests and the French immersion experience in Canada; research has shown that Hawaiian children who attended immersion preschools do as well as or better than those who attended English-medium preschools on standardized academic tests, even in English language arts (Wilson & Kamana, 2001). There is no national registry showing the distribution of immersion programs in Canada: information is scattered, and there is no known research evaluating their impacts on children's language outcomes, though at least one longitudinal study is currently underway (Brittain et al., 2006).

Suggestions for educators

While there are enormous gaps in research-based knowledge on how best to support the diverse goals and needs of Indigenous families with respect to young children's language development, the present review points to a number of guiding principles for working with children in educational settings. The first principle is to work collaboratively with a child's primary caregivers and to actively seek to learn from them about their goals for their children's language development, their beliefs about how their child is learning language, their perceptions of how readily the child's language is progressing, and any specific obstacles they are encountering in meeting their child's language development needs. A second principle is to use a context-based understanding of language development sequences and forms of expression. This may be gained by attending a variety of community events to find out what is typical in the child's community in terms of conversational discourse (e.g., in typical adult–child interactions, the adult may initiate more, while the child tends to respond rather than to initiate). Contextualized understandings may also be gleaned by developing a working relationship with a member of the child's speech community who can offer judgements about what is typical and what is atypical within the local context. Exposure to a child's normative language environment can help to fill in gaps in the information needed, for example, to distinguish dialect differences from true phonological mismatches with the adult features of a child's home dialect. A third principle is to provide a culturally safe and familiar environment for encountering a child and his or her family in order to assess learning needs and assisting development; a sense of entering into a foreign situation is likely to elicit unrepresentative low levels of language skills. A fourth principle is to find or create contextually relevant and culturally based teaching, testing, and assessment content and tasks. The out-of-context and seemingly arbitrary nature of some tasks or materials used in language assessment or facilitation procedures can be a challenge in eliciting a child's best language performance or a parent's free-flowing account of how well their parent–child interactions are facilitating a child's language development. Many practitioners recommend asking children to tell stories based on their personal experiences, and find these are more informative than asking children to retell provided stories, because children know that anyone who provides a story knows that story already, and telling adults what they already know is understood as a culturally incongruent response among some Indigenous peoples. Similarly, when something is already stated,

children may not feel the need to add to it spontaneously; the information has already been provided. In these situations, following up with a more specific question can let children know what is being asked of them and how they can contribute new information. A fifth principle is continually to evaluate one's own beliefs and values about language socialization and the desirable end point of children's developing language competencies. Sharpening awareness of one's own cultural location and professional pre-commitments can lend a degree of salience to the cultural nature of our roles, parents' roles, and young Indigenous children's language trajectories and the critical need to bring culture and context into focus in designing and evaluating supports for optimal development outcomes.

Conclusion

Given the importance of early language development for cognitive, social, and cultural learning and for school readiness, a funded program of research is needed to create and mobilize new knowledge about Indigenous children's early language learning trajectories and developmental needs. Research is needed to describe and understand the impacts of variations among Indigenous children with respect to their language socialization experiences (Pesco & Crago, 2008), as well as variations among Indigenous parents with respect to their goals for their children's language acquisition and communication behaviour. A first step to support a program of research on Indigenous early language outcomes involves the creation of new methods and tools that are valid and culturally acceptable for monitoring and assessing Indigenous children's language acquisition, taking into account variations such as children's exposure to and acquisition of multiple languages and dialects, including Indigenous languages.

Investments are needed to design, deliver and evaluate innovative language development programs that (a) are culturally and linguistically appropriate; (b) help Indigenous parents to play active roles in achieving their goals for their young children's language development; and (c) avoid extensive reliance on services delivered by experts who are infrequently available to Indigenous children, especially those in rural and remote areas. The priority in Indigenous-led programs is to strengthen parents' effectiveness in supporting their children's development. Therefore, strategies that help family members to promote children's language development in the home, from birth onward, should take centre stage in language facilitation and intervention

programs. As children approach school entry, whether they are learning their heritage language, English, French, or a combination of these, language promotion strategies need to reinforce positive cultural identity and promote success in school through (a) the timely provision of speech-language intervention as needed; (b) programs that bridge the transition from home to school when the medium of instruction differs from the home language; and (c) English as a second dialect programs for children who start school with a variety of the language of instruction that differs from the standard variety.

This article underscores enormous gaps in knowledge about what Indigenous children and families need in order to ensure optimal language development and effective approaches to meeting their needs. To begin filling these gaps, consideration should be given to the creation of a nationally networked, Indigenous-driven centre devoted to research and policy related to Indigenous children's early learning and development.

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Acknowledgements

I thank Indigenous colleagues who have shared their knowledge and advice, First Nations that have partnered with me in various research projects, and speech-language pathologists and primary school teachers who have described their experiences serving Indigenous children and families. Especially, I acknowledge B. May Bernhardt, Marlene Lewis, Onowa McIvor, Sharla Peltier, and Diane Zeidler. I am grateful to the BC Ministry for Children and Family Development for supporting my research on Indigenous children's language, provided through the Human Early Learning Partnership.

Note

1 Canada's *Constitution Act, 1982*, recognizes three separate peoples in Canada as Aboriginal: North American Indian, Inuit, and Métis. 'Aboriginal' is a colonial term; most original inhabitants of Canada prefer to be called by the names of specific tribal or other population groups (e.g., Cree, Ojibway, Innu). Referring to the collective, many now prefer the term 'Indigenous,' which links the original inhabitants of the land now called Canada to other populations of original peoples around the world who together are seeking international recognition of rights (to land titles, heritage language in education, self-governance, etc.).

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