
A Canadian Perspective on Learning Disabilities

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Canadian practice and research with children and adults with learning disabilities are described and analyzed. After an examination of the historical basis for current practice, the societal and cultural factors affecting education of children with learning disabilities, services for adults, and research are discussed. It was found that policy and legislation regarding special education vary considerably from province to province, and identification practices and service delivery models vary even within provinces. The fact that Canada has two official languages (English and French), a large multicultural community, and a Native population with special needs often arising from poverty has an impact on the education of children with learning disabilities and on sample description in research. Although school-age children are relatively well served, services for preschool children and adults with learning disabilities are minimal. The positive features of Canadian service delivery are that most programs are publicly funded, decision making tends to be nonadversarial and collaborative, and the needs of the whole child are typically considered.

Canada is a vast country with a relatively small but diverse population of approximately 27 million. Present-day Canada has been characterized as a "vertical mosaic" (Porter, 1965) in that it comprises a unique mixture of several cultures that are somewhat hierarchically organized in terms of economics and political power. These cultures include the native peoples, or First Nations, who were the original inhabitants; Canadians of French descent, whose ancestors settled in Canada during the seventeenth and eighteenth centuries; and Canadians of British descent, whose ancestors came to Canada from Britain from the seventeenth century onward, and from the United States during the American revolution in the latter part of the eighteenth century. Immigration occurred in three waves: In the latter part of the nineteenth century and early twentieth century, im-

migrants from Asia (mainly China) came to the west coast of Canada. Immigrants from various European countries came to central Canada and the prairie provinces during the early twentieth century and following World War II. More recently, Canada has received a large influx of immigrants and refugees, mostly from countries in economic or political turmoil in Latin America, the Caribbean, Asia, the Indian subcontinent, what was formerly the USSR, and the Middle East. All of these cultural groups have had a major influence on Canadian society and education, including the education of children with learning disabilities.

In this article we will provide a historical overview of services for children and adults with learning disabilities in Canada, discuss the societal and cultural factors affecting the education of children with learning disabilities, examine the services for adults with

learning disabilities, and discuss several factors that affect research on learning disabilities in Canada. We shall conclude with an analysis of the problems in the field in Canada and the contributions that a Canadian perspective on learning disabilities may make to the field as a whole.

Historical Overview

An analysis of the historical roots of work with children with learning disabilities seems to explain some of the principles involved in current practice with these children and adults in Canada. As no systematic history of learning disabilities in Canada has been written, the material for this analysis was obtained from interviews with Doreen Kronick, founder of the Learning Disabilities Association of Canada (LDAC) (formerly the Association for Children with Learning Disabilities or ACLD) and Annette Hebb-Grier, current executive director of Integra Foundation in Toronto and previous executive director of the McGill-Montreal Children's Hospital Learning Centre in Montreal. Additional specific information was taken from the summer 1991 edition of the *National*, the newsletter of the LDAC, and provided by June Bourgeau, current executive director of the LDAC.

The problem of learning disabilities appears to have first been recognized in Canada by a group of staff at the

Montreal Children's Hospital in the late 1950s. Edward Levinson, a psychiatrist who had studied with Helmer Myklebust in the United States, was puzzled by children who appeared to have only mild behavioral difficulties, seemed to have average intelligence, but had significant problems with school functioning. He began to work with three psychologists—Sam Rabinovitch, Margie Golick, and Ellen Duschenes—to determine the reasons for the children's problems and appropriate treatment. After some collaboration with colleagues in the United States, most notably Newell Kephart, they established the Montreal Children's Hospital Learning Centre in 1960. Sam Rabinovitch, who was the first director of the Learning Centre, also assumed a position in the psychology department at McGill University. After working out of the hospital for 11 years, the Learning Centre expanded into its own building in 1971 and was run collaboratively by McGill University and the Montreal Children's Hospital. As will be discussed below, the Learning Centre was the major influence on professional practice with children with learning disabilities in Canada, and its basic philosophy and practice would even now be considered progressive.

The second strand in the history of learning disabilities in Canada was the emergence of the ACLD. In the early 1960s, Doreen Kronick, mother of a child with "brain-damage," met two other parents of children with brain-damage with similar profiles, Harry Wineberg and Robert Shannon. These three parents established the first chapter of the Ontario ACLD in 1963 and ran the organization out of Doreen Kronick's house for several years. As a result of some publicity, they began to receive letters from parents from all over Canada, describing children with similar symptoms. These parents were advised to bring their children to the Montreal Children's Hospital or local centers for assessment and were encouraged to establish chapters of the ACLD. By 1967, there were chapters

in all 10 provinces and work began to establish the Canadian ACLD, which was incorporated in 1971. The Canadian ACLD first ran out of the offices of the Ontario ACLD in Doreen Kronick's house. In 1973 the office moved to the headquarters of the Quebec ACLD, in Montreal. By that time the Quebec ACLD was very strong and, under the direction of Joan Doherty and Edward Polak, ran the first ACLD conferences in Canada. In 1977, the Canadian ACLD moved to Ottawa, the nation's capital, in order to establish itself as an advocacy group at the federal level. At that time, June Bourgeau was hired to run a national conference. She subsequently became, and still is, executive director of the association. In 1981, the ACLD changed its name to the Association for Children and Adults with Learning Disabilities and in 1986 to the Learning Disabilities Association of Canada, to formally convey the fact that it both included and advocated for adults with learning disabilities.

What were the philosophies of these two organizations and what impact did they have on practice with children with learning disabilities in Canada? The key words that describe the philosophy of the McGill-Montreal Children's Hospital Learning Centre are *teaching*, *whole child*, and *collaborative consultation*. One of the policies of the learning center was that every staff member and student intern had to have direct experience teaching children with learning disabilities. The assumption behind this policy was that through teaching, the staff would understand the frustrations experienced by parents, teachers, and most importantly, the child and acquire a healthy respect for them. Dynamic assessment was used, in that all assessment involved trial teaching, with the central question being, "How does the child learn best?" Consequently, most assessments occurred over the span of several months and included ongoing remedial teaching sessions.

Considering the needs of the whole child was not just espoused by the

Learning Centre, it was practiced. The staff not only assessed the child's strengths and problems, but also considered the complexity of the relationships between the child and family and child and classroom in developing a treatment plan. Self-concept and social skills were seen as important even before these issues were pursued in the literature. The center emphasized that learning be engaging and fun, and thus games, playing cards, music, and gross motor activities were used as vehicles for instruction.

Collaborative consultation is a process that has only recently been a focus of discussion in the educational literature. The Learning Centre has practiced it, however, since the early 1960s. Each year, two or three teachers from the Protestant School Board of Greater Montreal (the largest English school board in Quebec) were seconded to the Learning Centre, the goal being that they learn more about how children with learning disabilities learn. These "master teachers" not only participated on the multidisciplinary team, but also consulted with the children's classroom teachers and often assumed consultative roles when they returned to the school system on a full-time basis. A carefully structured approach to consultation was developed to ensure that it was indeed collaborative—that classroom teachers were actively involved in the assessment process. The third partner in the assessment process was the parents. Sam Rabinovitch strongly conveyed his belief to the staff that it was parents who "hired" them, and that staff had no right to have information that was not shared. Consequently, procedures were developed to explain information to parents and take the mystique out of psychological and educational assessment.

A central feature of the Learning Centre was the integration of clinical work, research, and training. At various times in its history, the Learning Centre operated summer and after-school programs in which full-time teachers and/or graduate students in

education or psychology at McGill provided remedial programming for children on a one-to-one basis. What was unusual about these programs was the intensity of supervision these teachers received—typically, one supervisor for three teachers. Supervisors were often exceptionally qualified teachers who had been through the training in previous years. The quality of the supervision was such that certified teachers volunteered their time to participate. Films and books—for example, *Deal Me In* (Golick, 1981) and *Reading, Writing and Rummy* (Golick, 1986)—were published in order to communicate more widely some of the techniques found by the staff to be successful. Assessment material obtained from the children was also used as research data (e.g., Bruck, 1985).

What was the impact of the Learning Centre on professional practice in Canada? The philosophy of the Learning Centre was tied to the many professionals who had direct or peripheral contact with the organization—as staff members, interns, summer or after-school program teachers, students of Sam Rabinovitch, or professionals who referred children to the Centre. During the 1970s and 1980s, with the rise of the sovereigntist movement in Quebec, many of the English-speaking Montrealers who had contact with the Learning Centre moved to other provinces and became leaders in the field across the country. Thus, several universities in Canada have affiliated facilities resembling the Learning Centre in some respects. Other former Montrealers teach in Universities, are special education teachers and consultants and school psychologists, or work with children and adults with learning disabilities in community agencies. We expect that the pragmatic, student-centered and teacher-centered approaches to working with children with learning disabilities in many settings across Canada reflect the direct or indirect influence of the Learning Centre.

The LDA is one of the dominant educational and advocacy groups for

persons with handicaps in Canada. One of the significant features of the organization is the high degree of parent/professional collaboration. In the 1960s the ACLD assumed part of the responsibility for training teachers in Ontario by bringing in experts from the United States (e.g., William Cruickshank, Eleanor Semel) for summer or evening courses. (Training has now been taken over by ministries of education, and universities.) Chapter executives, however, continue to be a combination of parents, adults with LD, and professionals. Also, meetings and conferences tend to have a similar mix of participants.

In addition to ensuring that the rights and welfare of children and adults with learning disabilities are respected, the ACLD was instrumental in developing the following definition of learning disabilities in 1981:

Learning Disabilities is a generic term that refers to a heterogeneous group of disorders due to identifiable or inferred central nervous system dysfunction. Such disorders may be manifested by delays in early development and/or difficulties in any of the following areas: attention, memory, reasoning, coordination, communicating, reading, writing, spelling, calculation, social competence and emotional maturation.

Learning disabilities are intrinsic to the individual, and may affect learning and behaviour in any individual, including those with potentially average, average or above average intelligence.

Learning disabilities are not due primarily to visual, hearing or motor handicaps, to mental retardation, emotional disturbance, or environmental disadvantage, although they may occur concurrently with any of these.

Learning disabilities may arise from genetic variations, biochemical factors, events in the pre to peri-natal period, or any other subsequent events resulting in neurological impairment. (p. 1)

The LDAC definition continues to be recognized and has influenced several

of the definitions adopted by provinces. One aspect of the definition that should be noted is that learning disabilities are seen very broadly in terms of both etiology and behavioral manifestations. Thus, problems with social competence and emotional maturation are included in the definition. These inclusions were not accidental—they reflect the perception of leaders and practitioners in Canada that the “learning of social adequacy is a complex skill and that at least some social competence may be attributable to primary factors” (D. Kronick, personal communication, 1991).

The impact of the LDAC and provincial chapters has been extensive. The association published several books on learning disabilities for the layperson, the most successful of which was *A Parent's Guide to Children with Learning Problems* (Golick, 1970). Communication among members and other professionals was enhanced by the publication entitled the *National*, as well as by provincial and chapter newsletters and annual conferences typically attracting 500 to 1,500 delegates. Other major activities included a project on the young offender during the mid-1980s and a think tank exploring future directions in the field in 1988. The association's activities were funded by various government agencies and The Samuel and Saidye Bronfman Family Foundation.

Kronick (personal communication, 1991) aptly described the Canadian LDA as “collaboratively activist.” Although differing theoretical viewpoints caused tension at times, the organization always retained a common purpose, never engaged in disruptive infighting, and continued to pursue educational and advocacy activities. In the 1960s and 1970s the ACLD advocated for the provision of classrooms and programs. In the early to mid 1980s, members of provincial associations were key players in the process of drafting and implementing mandatory special education legislation. In the late 1980s the advocacy work focused on services other than educa-

tion, including corrections, vocational agencies, industry, and postsecondary institutions. One of the tasks for the 1990s appears to be ensuring that the needs of children with learning disabilities are met while school systems proceed in the direction of integrating most exceptional children.

Societal and Cultural Factors Affecting Education of Children with LD

Five societal and cultural factors were identified as having an impact on the education received by children with learning disabilities in Canada. First, and perhaps overriding all other factors, is that education is exclusively a provincial jurisdiction in a federal political system. Consequently, legislation, policies, and procedures vary significantly from province to province. Second, official bilingualism has implications for students with learning disabilities who must either study or learn in a second language. Third, in addition to the English- and French-speaking populations, Canada has a large multicultural community. The dominant Canadian ethos is that these communities should maintain the culture of their country of origin while simultaneously integrating into Canadian society. Differentiating learning disabilities from problems with English or French as a second language is a major diagnostic issue. Fourth, 1.3% of children in Canada are from native communities and have specific language, learning, and cultural needs. Fifth, Canada has a relatively well-developed social safety net (i.e., provision of education, health, and social services through government funding), which has led to the expectation that services for children with learning disabilities would be provided, for the most part, by the public sector. Canadian attitudes toward education and service delivery seem to have affected the process of providing programs for children with learning disabilities.

Each of these five factors is addressed below.

Provincial Jurisdiction

Canada is composed of 10 provinces, the Northwest Territories, and the Yukon territory. In 1988, the child populations of these provinces and territories ranged in size from 4,922 in the Yukon (a territory) to 1,796,244 in Ontario. The four maritime provinces and the territories have a total child population of less than 500,000, with the Northwest Territories and Prince Edward Island having approximately 13,000 and 24,000 children, respectively, and the child populations of Newfoundland, Nova Scotia, and New Brunswick hovering around 150,000 each. Two of the three prairie provinces (Manitoba and Saskatchewan) have child populations of just over 200,000. The child populations in Alberta, British Columbia, and Quebec are 426,476, 514,464, and 943,652, respectively.

Because education is in provincial jurisdiction, each province has its own education act and policies pertaining to special education in general and learning disabilities specifically. According to Poirier, Goguen, and Leslie (1988), all but three provinces have mandatory special education legislation. The three provinces without such legislation are Prince Edward Island (the smallest province), Alberta, and British Columbia. These provinces have permissive legislation (i.e., special education services may be provided by school boards but school boards are not required to do so).

The specific provisions of mandatory special education also vary from province to province (Poirier et al., 1988). While mandatory legislation in the seven provinces that adopted it requires school boards to admit children with special needs, only in Manitoba and Quebec is this right to education universal (i.e., no child may be excluded from school). In the remaining five provinces, the right to an education is quasi-universal, with some pro-

vision for exclusion of hard-to-serve children. For example, in Ontario, if a school board (a Canadian term that is roughly equivalent to school district in the United States) determines that it does not have the facilities to provide for a specific child, the board may identify that child as "hard to serve." According to the 1980 amendments to the Education Act, the school board's only obligation is to "assist the parent or guardian to locate a placement . . . suited to the needs of the pupil and reimburse the parent or guardian for any expenses incurred. . . ." In only five provinces (Manitoba, New Brunswick, Ontario, Quebec, and Saskatchewan) are special education teachers required to have specialized certification and training. In only three provinces (Ontario, Quebec, and Saskatchewan) is there any statement that the education must be appropriate for the needs of the child. Even in these three provinces, however, individual educational plans need not receive formal approval. Only in Quebec and Saskatchewan must children be placed in the least restrictive environment. The mandatory legislation in most provinces covers only school-age children (i.e., 5 or 6 to 18 or 21 years); thus, in most provinces, systematic early identification programs begin only at school entry in kindergarten or Grade 1. The exception is Quebec, where 2,247 exceptional preschoolers are served by the school system. In most other provinces, children may be referred by parents, physicians, or others to hospital or community and social services clinics for evaluation and preschool programming. Finally, in only four provinces (Nova Scotia, Quebec, Ontario, and Saskatchewan) does the legislation state that parents have a right to be involved in the decision-making process.

Provinces differ in their organization of services for children with learning disabilities. In a survey conducted by the Canadian Council for Exceptional Children (CEC) in 1988, 5 of the 10 provinces and both territories reported either that they did not categorize chil-

dren at all or that children with mild handicaps received noncategorical services. It should be noted, however, that the five provinces that provide specific services for students with learning disabilities represent 80% of the child population of Canada. One of the factors affecting provision of services to children with learning disabilities is geography. Many of the provinces and territories providing only noncategorical services have small populations, with a relatively high proportion of that population living in isolated rural communities (i.e., communities separated by more than 100 km). As stated by Bachor and Crealock (1986), the financial and social costs of transporting children with LD to communities large enough to provide specialized services may outweigh the benefits.

The proportions of children formally identified as learning disabled in the five provinces providing categorical service varied widely, according to the 1988 CEC survey, with Quebec identifying 10.2% of its child population, Nova Scotia 7%, Ontario 3.1%, Saskatchewan 1.7%, and British Columbia 1.3%. There is, of course, considerable variation in the provision of services within provinces. For example, in a survey on the mental health needs of children and youth with learning disabilities in Metropolitan Toronto (Canada's largest city, with a population of approximately 3 million), Cummings, Hebb-Grier, Brazil, and Vallance (1990) found that 4.2% of schoolchildren were identified as learning disabled. Metropolitan Toronto, however, is serviced by seven school boards. The proportion of children identified as having learning disabilities in these seven school boards ranged from .9% to 27%.

The wide variation in services for children with learning disabilities found within the same province or adjacent school boards is not mainly related to funding. School boards do not receive provincial or federal funds based on the number of children with learning disabilities (or other handicaps) identified. School board funds

come from a combination of local property taxes and direct provincial funding, with provinces having formulae that provide for adjustment of provincial fund levels according to the property tax base of the community. Thus, school boards within provinces are relatively homogeneous in the level of funds available to them. School boards in communities with a high level of poverty and a large number of children with special needs, however, may still find it difficult to provide adequate services with the funds available to them.

A recent development with regard to the rights of children with learning disabilities and other exceptional children was the Constitution Act (1982), which enacted the Canadian Charter of Rights and Freedoms. Although this is a federal law not applying directly to education, the provisions of the Charter override virtually all provincial legislation. The equality rights provision in Section 15 of the Charter states the following: "Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on . . . mental or physical disability." Of the four basic rights that every individual is entitled to, "the right to equal benefit of the law" (i.e., the right to unequal distribution of resources in the case of unequal need) is especially important (Henteleff, 1990). The law suggests that even in the absence of mandatory special education legislation (as in Prince Edward Island and British Columbia) or where the legislation does not indicate that an appropriate program is necessary, the Charter may provide that right. Recent cases brought before the Supreme Court, for example, have stipulated that parents have a right to a fair hearing even if this is not incorporated into provincial education legislation. As no Charter cases applying to children with learning disabilities have yet reached the Supreme Court, there is considerable debate about how the Charter will be

interpreted (Henteleff, 1990; Poirier et al., 1988). As will be discussed below, the passage of the Constitution Act has spurred provision of services for adults with learning disabilities.

Official Bilingualism

English and French are the two official languages of Canada, and the federal government and the province of New Brunswick are officially bilingual. In Quebec, the official language is French and the majority of the population speaks French; in the rest of Canada, the official language is English and the majority of the population speaks English. In most of Canada, services are provided to minority Francophones (French-speaking people) or Anglophones (English-speaking people) where sufficient demand exists. Further, at some point in their education (the timing and amount varies provincially), children receive instruction in the second official language, with approximately 50% of anglophone children outside of Quebec receiving French language instruction at any given point in time (Statistics Canada, 1990) and all Quebec francophone children receiving English instruction from Grade 4 to high school graduation. In 1988-89, 1.9 million students were enrolled in second language French courses. Also, approximately 5% of anglophone children (or 228,000 children in 1988-89) were enrolled, at their parents' request, in bilingual or French immersion programs (programs wherein at least half the school day, and typically all but 1 hour of the school day, is spent studying in French).

What is the implication of official bilingualism for children with learning disabilities? Lambert (1975) used the terms *additive bilingualism* and *subtractive bilingualism* to describe the consequences of bilingualism. Positive or negative consequences were seen to be related to the context of bilingualism, not bilingualism per se. In some situations, the learning of a second language (L2) has no impact or has a posi-

tive impact on the development and maintenance of the mother tongue (L1) and no negative cognitive or affective developmental consequences. Lambert referred to these situations as additive bilingualism. In other contexts, the learning of L2 has a negative impact on the acquisition of L1, and possibly other negative cognitive and affective consequences. These situations were referred to as subtractive bilingualism. Thus, the question for children with learning disabilities is the extent to which bilingualism is additive or subtractive.

There are three contexts to consider in this analysis. The first context is the provision of L2 instruction as one subject in the curriculum. Typically, this "core" French or English program involves decontextualized and academic methods of instruction, whereby children study a language but do not study other subjects in that language. Typically, the L2 is not commonly used in the home or community. Core French or English instruction is often problematic for children with learning disabilities because of their difficulties with second language learning (Bruck, 1982; Wiss, 1989). While core French or English instruction for children with learning disabilities may not be subtractive in the sense that there is little or no impact on the acquisition of L1, clinical observation suggests that there are often negative consequences due to the failure the children experience.

The second context is the provision of instruction to minority anglophone or francophone children in L1 when their L1 is not the dominant language of the province. Anglophones in Quebec and Francophones outside of Quebec are often in this situation. In some cases, such as those of New Brunswick Francophones and Quebec Anglophones, an individual's L1 is usually the dominant language of his or her family, his or her local community, and—in the case of Quebec Anglophones—the North American culture and media. In these communities, special education resources in L1 typically

exist for children with learning disabilities.

Frequently, Francophones outside of Quebec and New Brunswick are such small minorities in their communities that English is required for daily living. In some cases, French ceases to be the dominant language of the home and a combination of English and French becomes the L1. With the goal of maintaining language and culture, these children are often given French education where numbers warrant. According to Carey (1987), "they are bilingual with incomplete learning of either language and this provides for increased inconsistencies in sound to syllable mapping" (p. 106). Similar to children with reading disabilities, they are slow in word naming and phonetic decoding, and have long latencies for abstract as opposed to concrete words. Their educational attainment is lower than Anglophones'. In short, Carey found that the experience for many of these francophone children is subtractive bilingualism.

It follows from the above analysis that identifying children with learning disabilities in a situation of subtractive bilingualism is very difficult. Achievement tests normed on Quebec Francophones may not be appropriate for minority Francophones outside Quebec. Furthermore, even though legislation in provinces such as Ontario mandate it, providing special education services to minority francophone children with learning disabilities in French may be problematic because of difficulty in recruiting qualified teachers.

The third context is French immersion or bilingual programs for anglophone children. In French immersion programs, anglophone children receive almost all of their education in French with only approximately 1 hour per school day devoted to English language arts. In bilingual programs, instruction for half the day is in English, half in French. Anglophone children typically enter immersion with well-developed skills in L1 but little exposure to French other than short clips on Canadian *Sesame Street* (Carey, 1987).

While French immersion programs may begin at any grade level, the most frequent pattern is early immersion, beginning in kindergarten or Grade 1. There is considerable evidence, including that from longitudinal studies, that for the majority of anglophone students the experience of French immersion is additive bilingualism (Carey, 1987; Lambert & Tucker, 1972). The extent to which this is true for children with learning disabilities has been the subject of considerable debate (Wiss, 1989). Some investigators (e.g., Bruck, 1978, 1982; Cummins, 1979) state that as children with learning disabilities experience difficulty in both French immersion and regular English programs, removing them from French immersion is not beneficial as long as they can obtain appropriate remedial assistance while in French immersion. Others (e.g., Trites, 1976, 1981) suggest that there is a subtype of children with learning disabilities who experience difficulty in early French immersion but not in regular English programs.

A number of practical questions have arisen from the enrollment of children with learning disabilities in early French immersion programs. The main problem, of course, is that they are enrolled before they have received systematic reading instruction and usually before there is an opportunity to identify their learning disabilities. A question asked by both researchers and practitioners (e.g., Trites, 1986; Wiss, 1987) is whether there is a reliable method of identifying children who would have problems in early immersion prior to school entry.

A second set of questions pertains to the difficulties in diagnosing learning disabilities after entry into French immersion. Should the children be assessed in English, French, or both? If achievement tests normed on children in regular English programs or Quebec francophone children are not appropriate—and the consensus is that they are not (Carey, 1987; Wiss, 1987)—what tests or assessment methods should be used? If achievement is low in either or both languages, does this mean the

child has a learning disability or is simply not responding well to immersion programming?

A third set of questions pertains to the most appropriate placement and program for children with learning disabilities who are beginning their schooling in French immersion programs. Children with learning disabilities continue to experience learning difficulties when switched to an English program (Bruck, 1978, 1982; Cummins, 1979); however, are these difficulties as great as they would have been had the children remained in French immersion? Do different subtypes of children with learning disabilities respond better to remaining in French immersion or switching to English programming? Should special education be provided in French, English, or both? If special education in French is unavailable to children with learning disabilities in French immersion programs, as is frequently the case, should they remain in French immersion?

To conclude this section, official bilingualism has been a major political and social question in Canada since confederation in 1867. For children with learning disabilities it takes on special significance because the requirement that they learn a second language or learn in a second language may lead to additional frustration and failure. They seldom achieve functional bilingualism, and the extent to which providing them with experiences that typically lead to additive bilingualism in children without learning disabilities is subtractive in terms of L1 functioning, or has negative cognitive and affective consequences, is still a subject of debate.

Multiculturalism

In addition to Anglophones and Francophones, Canada has a substantial population whose L1 is neither English nor French. In Quebec, these people are referred to as Allophones. The population of Allophones in 1986 (the last census) was 2,860,565, or

11.3% of the total population. Considering the recent wave of immigration, numbers have likely increased since then. The concentration of allophone children in the three largest metropolitan centers in Canada (Toronto, Montreal, and Vancouver) is especially heavy, with more than 50% of children in Toronto and Vancouver coming from homes where the language spoken is neither English nor French. With the exception of a fairly large Chinese community, immigration to Canada prior to 1970 was mainly from Europe. More recent waves of immigrants and refugees, however, have come from many countries in the Caribbean and Latin America, the Middle East, India and Pakistan, Somalia, Vietnam, and Hong Kong.

To a certain extent the problems of multiculturalism and official bilingualism are similar, in that a major issue is the facilitation of additive bilingualism or trilingualism. There is no debate as to whether allophone children should learn at least one of the dominant languages (i.e., English or French). There is also general agreement that strong functioning in L1 is a good predictor of facility in acquiring L2 and L3 (e.g., Cummins, 1987). The question is whether allophone children who are weak in L1 should receive help to strengthen L1 prior to or simultaneous with being taught L2 and L3.

Allophone children may be weak in L1 for a variety of reasons (Cummins, 1984). Some may have parents with very low educational and language levels. Others, such as refugees, may have been victims of trauma. Others may have parents who believe that they are helping their children by speaking to them in English or French even though the parents' skills in L2 are weak. These children receive poor language modeling in both languages. Finally, some of these children have learning disabilities.

A problem faced by Canadian researchers and educators is that of diagnosing learning disabilities in allophone children. Although basic interpersonal communication skills in L2 are typical-

ly acquired quickly by children, cognitive academic linguistic proficiency typically takes 5 years or more (Carey, 1987; Cummins, 1984). Consequently, it is often difficult to discriminate allophone children with learning disabilities who may require special education from allophone children who require additional English or French as a second language teaching. Also, learning disabilities may be conceptualized as a continuum from the clearly non-learning-disabled to a group of children who would have learning disabilities no matter what the educational environment. Adelman (1989) suggested that also on that continuum is a group of children who in optimal conditions would not have learning disabilities but who are vulnerable. Some allophone students who are asked to learn in a new language and foreign culture may fit into Adelman's third category.

Cummins (1987) and others have criticized Canadian school boards for excessive identification of allophone children as learning disabled. Consequently, progressive school boards currently use dynamic assessment techniques and tend to be cautious about prematurely identifying Allophone children as learning disabled. A disadvantage of this approach is that some allophone children with learning disabilities who would benefit from special education services are not being identified. Until more reliable assessment methods are developed, however, this may be inevitable.

Native Issues

As indicated above, Canada's aboriginal or Native peoples constitute approximately 1.3% of the population. About 65% of Natives live in remote or rural communities (Csapo, 1989). Although language plays a role in any discussion of learning disabilities in Native groups (Native Indians comprise 10 language groups and 58 dialects), the major issues are poverty and cultural differences.

The litany of problems related to Native Indians' poverty and being deprived of their culture is vast. According to Csapo (1989), Native neonatal mortality is approximately 60% higher than the national rate, and the average death rate for Native children is three times higher than the national rate. The major causes of death in the Indian population are accidents, violence, and poisonings, with suicides being three times the national rate. There are estimates that 50% to 60% of Indian illnesses are alcohol-related, with fetal alcohol syndrome being a relatively common problem among children. Due to the prevalence of persistent upper respiratory infections, hearing loss in children is a frequent occurrence.

Native education is the responsibility of the federal Department of Indian and Northern Affairs. Until the late 1960s, Natives were often educated in residential schools whose aim was to eliminate their language and culture. Since 1970, some schools on reserves are run by the Department of Indian and Northern Affairs. The Department also provides financing for schools run by the bands themselves and for Natives to attend public schools under provincial jurisdiction. Concerns about discrimination and the slotting of Natives into low academic streams are often expressed.

As might be anticipated, the educational attainment of Natives is low, with only 60% of them between the ages of 14 and 18 attending school compared to a national average of 75%. University attendance is less than half the national average. In this context of physical health, mental health, and learning problems, the task of differentiating low academic achievement due to poverty and cultural factors and low achievement due to learning disabilities has not been a priority. It is clear, however, that Native children are at risk and prevention programs are required.

Canadian Attitudes

As pointed out by Porter (1987), a prominent Canadian sociologist, there

is a "paucity of information upon which to draw to construct a plausible Canadian Character" (p. 90). Consequently, we have largely had to draw on our own observations in this section. It is our contention that Canadian attitudes regarding the need for public provision of education, health, and social services, our trust in public institutions, and our preference for collaboration over litigation have affected the mode of delivery of special services for children with learning disabilities and the decision-making process. Further, a general philosophy about the need to consider the whole child has had an impact on the types of services provided.

What has been the impact of the above attitudes on services for children with learning disabilities? First, most services are provided within public institutions—primarily the school system but also hospital- and university-affiliated learning centers and children's mental health clinics. Although relatively long waits for service are a concern and those who advocate better may be more likely to receive service, personal finances are seldom an issue. Frequently, school boards and other agencies refer to each other and collaborate to provide programs for individual children. It is a rare occurrence, however, for one public institution (e.g., a school board) to pay another (e.g., a hospital clinic) to provide a service for a child in the jurisdiction of the first institution. Furthermore, there is sometimes some distrust between the private and public sectors.

Porter (1987), concurring with the noted literary critic and author Margaret Atwood, stated that "survival is a dominant theme in the country's political life" and that our "concern for survival as a political entity places a premium on the practices of the past, favors compromise and things as they are" (p. 90). It is our view that Porter's interpretation, although not inaccurate, can be expressed more positively. Does a preference for compromise over confrontation, collaboration over litigation, really mean that "we Canadians

are a conservative people" (Porter, 1987, p. 90)?

As stated by Kronick (1987), "service provision for the learning disabled essentially has been a nonadversarial process which has facilitated holistic, collaborative interventions involving educators, parents, peers, and most importantly, the learning disabled person" (p. 1). It is our view that this general preference for compromise and collaboration has benefited children with LD. It has meant that the time and energy of school special services staff have been devoted to more informal types of assessment, with the development of instructional strategies as a goal instead of formal assessment for the purpose of documenting need. Usually, committee meetings to decide on placement and programming are informal and friendly. Although legislation in many provinces is very weak, services and programs have often been provided in the absence of satisfactory mandatory legislation. In addition, the holistic perspective has meant that at least some attention has been paid to social skills intervention, parent education, and counseling.

Services for Adults with Learning Disabilities

Services for adults with learning disabilities are at a preliminary stage in most of Canada. Although many universities and community colleges have special needs offices, until recently the focus of these offices has been to provide accommodations for students with sensory and physical handicaps. Similarly, it is only the most progressive of employers who have become aware of the problem of learning disabilities in employees and the need to accommodate appropriately. Adult literacy programs continue to be very poorly funded.

Services for adults with learning disabilities, however, are developing, partly as a result of the development of the field in the literature and partly due to the passage of the Federal

Charter of Human Rights and Freedoms in 1982 and provincial human rights codes. As discussed above, Section 15 of the Charter of Human Rights and Freedoms prohibits universities, colleges, and employers from discriminating against students and employees with learning disabilities and requires these institutions to provide students and employees with learning disabilities and other special needs with appropriate accommodations.

As a result of the Charter, provinces are beginning to provide postsecondary institutions with funds for special needs. In Ontario, for example, these funds, which were allocated in 1989, are based on total student enrollment, are ongoing, and appear to be adequate. Consequently, programs for students with special needs have expanded to the extent that students with learning disabilities can now take advantage of them. The problem has been that the expansion has been so rapid that finding appropriately trained leaders and front-line personnel has been difficult.

Some relatively more established programs that are providing leadership are the Learning Disabilities Program at York University, which was opened in 1984 through funding from the Counselling Foundation of Canada, and the Disability Resource Centre at the University of British Columbia, which was started by Rick Hansen (a Canadian hero who raised funds for spinal cord research by going around the world in a wheelchair). To educate personnel to work with adults with special needs, the Department of Instruction and Special Education at the Ontario Institute for Studies in Education implemented a new graduate program, with a focus on adult learning and special needs, in September 1991.

Research

For the most part, research on learning disabilities in Canada follows the trends of research in other countries. Thus, most Canadian research is di-

rected toward neuropsychological and educational (or psychoeducational) issues, including reading disabilities, attention deficit disorder, neuropsychological subtypes, instructional strategy intervention, and social skills. Research is typically conducted in universities, often in collaboration with hospital and educational settings, such as school boards and postsecondary institutions. Several universities have followed the model of the McGill-Montreal Children's Hospital Learning Centre and established learning centers with the tri-partite mandate of research, training, and model practice.

Research in the area of learning disabilities is funded from public sources in the form of federal or provincial grants, private foundations, and industry, with the bulk of research stemming from federal or provincial grants. Depending on the specific nature of the project, federal funds are mostly obtained from three research councils: The Social Sciences and Humanities Research Council funds research in social, developmental, clinical, and educational psychology; the National Science and Engineering Research Council funds basic research in cognition, learning, perception, and motivation; and the Medical Research Council funds research on physical and mental health. Research council funds are highly competitive. Although there is some variation, research proposals are usually evaluated through peer review on the basis of the quality of the proposed project and the track record of the investigator in terms of past research and publications. The federal councils do allocate some funds, however, to "emerging scholars," that is, those who have recently received a PhD or assumed a position involving research. Grants from the federal councils and most provincial sources are in the form of direct funding to the investigator and typically do not provide funds for overhead. Most researchers agree that research funding is inadequate.

Canadian researchers in the area of learning disabilities tend to publish in

major American and international journals and at American and international conferences, and in Canadian journals and conferences. The major Canadian refereed journals include the *Canadian Journal of Behavioural Science*, the *Canadian Journal of Education*, the *Canadian Journal of School Psychology*, the *Canadian Journal of Special Education*, the *Canadian Modern Language Review*, and the *Alberta Journal of Educational Research*. The *Canadian Journal for Exceptional Children* (a publication of the Canadian CEC) recently discontinued publication and a new journal, *Exceptionality Education Canada*, has just published its first issue. The major journals accept articles in English and French and generally provide abstracts in the alternate official language. Researchers often speak at professional provincial and national conferences run by the Council for Exceptional Children and the Learning Disabilities Associations and at academic conferences, such as those of the Canadian Psychological Association and the Canadian Society for Studies in Education.

As might be anticipated from reading our analysis of societal and cultural factors affecting education, certain societal and cultural factors affect research and publication. For example, the *Journal of Learning Disabilities* policy regarding sample description requires that authors provide a comprehensive description including (a) total number of subjects participating in the study, (b) number of males and females, (c) age, (d) racial composition, (e) socioeconomic status (SES), (f) intellectual status, and (g) relevant achievement, physical, and/or socioemotional status. This policy is consistent with that of the Council of Learning Disabilities (Deutsch-Smith et al., 1984). For Canadian researchers, providing information for (a), (b), and (c) is not problematic; there are, however, some special social and cultural issues affecting the information needed for (d), (e), and (f).

As discussed above, the process of identifying children with learning disabilities and the proportion of the child

population so identified is variable from province to province and school board to school board. In fact, in some provinces learning disabilities are not identified as a separate category. Further, the flexibility in interpretation of definitions and the lack of standardization of procedures render the use of school identification as a sole criterion problematic. Also, many school board research committees are reluctant to allow researchers access to school files wherein information from standardized testing is kept. Therefore, sample description in Canada is usually enhanced when researchers employ an objective set of criteria (e.g., achievement tests that are independently administered) for defining samples of children and adults with learning disabilities.

Because language is an important issue in Canada, describing samples in terms of anglophone, francophone, and allophone origin is typically more important than describing racial composition. For some research, it may be important to include only children whose L1 is English or French, depending on the language used in the study. Consequently, criteria for excluding students with English or French as a second language should be specified. Obviously, in assessing achievement, language of instruction or community may be an issue. Thus, it would be important to specify that a sample comprise minority Francophones outside Quebec educated in French or Anglophones in French immersion programs. Intelligence and achievement test data for children educated in a language not generally used in the home or community may also be spurious.

Although policies vary, many Canadian school boards are reluctant to permit researchers to collect specific data regarding ethnicity, race, or SES unless the information is a central question of the study and indirect information, such as language and location of dwelling, is often not indicative. While researchers are usually able to ask about parents' occupations, it is often

difficult to get permission to obtain other information to determine SES. It should be noted that Canadian cities are relatively safe and comfortable living environments and are inhabited by people with the full range of SES. Consequently, it is inappropriate to assume that urban samples would contain mainly lower SES children.

To summarize, Canadians have been active researchers in the area of learning disabilities and have made many important contributions to our understanding of the field. Our most often cited researchers include Margaret Bruck, Che Kan Leong, Maureen Lovitt, Linda Siegel, Keith Stanovich, and Bernice Wong in the areas of reading and instructional strategies, Virginia Douglas and Gabrielle Weiss in the area of attention deficit disorder, Doreen Kronick in the area of social development, and neuropsychologists John Kershner, Byron Rourke, Ottfried Spreen, and Ronald Trites.

Conclusion

The foregoing discussion paints a positive picture of learning disabilities practice and research in Canada. Although a positive tone is indeed appropriate, the analysis also revealed some problems. First, with regard to legislation and service delivery, there is reason to be concerned about the fact that three provinces (British Columbia, Alberta, and Prince Edward Island) have not yet passed mandatory special education legislation. Although precedents under the federal Charter of Human Rights and Freedoms suggest that exceptional children in these provinces do have a right to an education and parents to due process, the Charter does not set, and the courts have not required, specific standards for that education. As indicated by Poirier et al. (1988), the legislation for most provinces with quasi-universal or universal access is also somewhat deficient in the setting of those standards.

A second problem is the lack of special education services for Native chil-

dren with learning disabilities. It should be noted that the lack of services for Native children is not confined to the area of learning disabilities; basic economic, physical, and mental health issues need to be dealt with for this population.

Although school-age children with learning disabilities are relatively well provided for in Canada, serious gaps in services exist for preschool children and adults. While there are many excellent diagnostic and treatment centers serving preschool children with learning and other developmental disabilities, in most provinces there are no systematic screening programs for identifying them prior to school entry. Services for adults with learning disabilities are in their infancy in Canada. Fortunately, there appears to be considerable interest in the adult population, which may lead to growth.

Canadian society and service delivery present opportunities for the researcher. Research on the problems that children with learning disabilities have with second language learning may increase our understanding of both learning disabilities and second language learning. For example, several researchers (e.g., Da Fontoura & Siegel, 1991; So & Siegel, 1991) are examining the competing hypotheses of cross-lingual transfer versus linguistic specificity. They are investigating the degree to which Portuguese and Cantonese children manifest similar levels of reading difficulties in English and their mother tongue. Preliminary data indicate that, for the most part, similar problems are evident in both languages although some error types appear to be specific to orthography. Also, comparative interprovincial research on service delivery may assist in the development of policies for serving children with learning disabilities in a variety of urban and rural settings.

Finally, there are some areas in which Canada might serve as a model. Because of our traditions, services for children with learning disabilities tend to serve the whole child and not be fragmented. Teaching and teachers

tend to receive respect. Collaborative consultation and collaborative advocacy are the rule, not the exception. Consequently, in spite of legislative inadequacies, most children and some adults with learning disabilities are well served.

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