Bridging the gaps within an inclusive educational system in Montréal, Québec: Identifying the perceptions of knowledge and attitudes of educators at all levels

1Kim S. Daniel[1, 2], Jack De Stefano[2], Roger Slee[3], Kim Cornish[14]
McGill Child Laboratory for Research and Education in Developmental Disorders,
2 Department of Educational and Counselling Psychology, McGill University, Montréal, Québec, Canada
3 Institute of Education, University of London, United Kingdom,
4 Centre for Developmental Psychiatry & Psychology. Faculty of Medicine, Monash, Melbourne University, Australia

McGill Child Laboratory for Research and Education in Developmental Disorders[1], Department of Educational and Counselling Psychology[2], McGill University, Montreal, Québec, Canada, Institute of Education, University of London, United Kingdom [3], Centre for Developmental Psychiatry & Psychology. Faculty of Medicine, Monash University, Australia [4]

Corresponding authors: Kim S. Daniel, kim.daniel@mcgill.ca and Kim Cornish, kim.cornish@med.monash.edu.au

Abstract

Significant changes in perceptions, attitudes, policies, and services for children with different developmental disabilities have occurred over the past 30 years. In Canada, some provinces have made it mandatory to implement inclusive education (e.g. New Brunswick); however, there is a considerable inconsistency across the provinces because each province has its own policies, legislation, definitions, and procedures with regard to the implementation of full school inclusion. Moreover, within some jurisdictions, these decisions are not even provincially mandated, but are left to the discretion of individual school districts and school boards as is the case within Québec. The lack of a universal mandate within the province of Québec towards implementing full school inclusion creates little incentive to ensure that all school personnel have current resources that will assist them in developing IEP's that represent the range of student differences. Current resources and appropriate educational programs will help to facilitate educators at all levels learning when working with children with different developmental disabilities in the regular classroom. The success of inclusionary best practices is contingent upon the attitudes held and the level of knowledge shared between all educators. Survey data from educators (teachers, resource teachers, non-teaching professionals and support staff) working in inclusive settings in Montréal, Québec were analyzed to assess their perceptions of knowledge and attitudes (challenges, stressors and success) when working with students with different developmental disabilities. Findings suggest that regular classroom teachers reported higher perceived level of knowledge across different developmental disabilities than the other groups of educators and shared similar attitudes towards school inclusion. Lastly, implications for policy and practice for educators at all levels working in an inclusive school is discussed.

Keywords: inclusive education; developmental disabilities; regular classroom teachers; resource teachers; non teaching professionals; support staff; education policy.

Introduction

The educational landscape for all children has changed dramatically in the last 30 years. Among these is the slow but gradual shift in recognizing that children with a developmental disability have their own unique set of abilities, which can be maximized through appropriate educational interventions. Hence, the recognition that each child (regardless of their developmental disability) is able to learn resulted in an educational shift away from segregated classrooms to inclusive educational facilities such as the regular classroom, where children with special needs receive educational services among their non-disabled peers.

The term "inclusive education" has received more attention, undergone more modifications, and generated more controversy than the actual practice of inclusive education itself. The lack of consensus in defining "inclusive education", together with the practice of rebranding traditional special educational policies and practices as inclusive (Brantlinger, 2006) has actually impeded the implementation and practice of full inclusion across the Canadian provinces and well beyond (Jenkins & Heinen,1992; Crawford, 2004; Bunch & Valeo, 2008; Slee, 2008). For instance, in Québec, the word *integration* is used in educational policies instead of the word *inclusion*. While integration is synonymous for inclusion, many educators have argued that the two terms have completely different meanings. According to Smith and Smith (2000), the word integration implies that children with disabilities require special education and therefore are "placed" into the regular classrooms on a part-time basis. They further argued that the term inclusion assumes that these students have a right to "belong" in the general classrooms. In Australia and in the UK 'integration' predated "inclusive education". The former was seen to be a form of assimilation where the onus was placed on the child to fit into unchanging schools and classrooms (Slee, 1996; Barton, 2003; Crawford, 2004) It is important to acknowledge these

semantic differences in order to understand that inclusive education is essentially an educational philosophy of acceptance of all children regardless of their disability by educators at all levels.

The decision of Canadian school systems to embrace inclusionary practices and to move toward designing appropriate programs that understand and respond to the challenges and abilities emanating from a range of impairments and syndromes is best seen through the adoption and implementation of the individualized education plan (IEP). The IEP is a prescriptive tool in that it provides information about the child's current level of functioning and establishes objectives and means to facilitate each student's cognitive, behavioural, and social learning within a regular setting with their non-disabled peers. It is also a legal document used to determine eligibility for specialized services under one of the defined disabilities (e.g. Down syndrome, autism spectrum disorders, ADHD, etc.). Finally, it is a social contract among the educational team which generally includes regular classroom teachers, resource teachers, non-teaching professionals(e.g. school psychologists), educational assistants (and sometimes parents), and it documents and stipulates each member's role and responsibility toward the child. Today, the IEP is considered an embodiment of the philosophy of inclusiveness in that it provides a framework for each student's trajectory of educational programming, curriculum needs, and instruction. Yet, in spite of the IEP's potential for facilitating inclusive, syndrome, or disability-specific intervention strategies, barriers and obstacles to more effective educational practices continue in the current Canadian educational system. Kearney (2008) has documented the way in which the IEP process is reduced to a compliance mechanism that obstructs inclusion. She also establishes the way in which IEPs tend to reinforce the notion of the disabled child as a problem.

Barriers to delivering educational provisions for students with developmental disabilities are documented in the literature (Andrews & Lupart, 2000; Bunch, Lupart & Brown, 1997; Friend, Bursuck & Hutchinson, 1998; Lupart, 1998; Lupart, McKeough, & Yewchuk, 1996). These cluster around the three barriers of: a) lack of clarity in policy and operational definitions of "inclusion" (Jenkins & Heinen, 1992); b) inconsistency in inclusive education legislation across provinces (Timmons, 2006); and c) educators' reluctance in accepting inclusive education as a best practice. Of these, the reluctance to perceive inclusion as a best practice is perhaps the most significant obstacle that needs to be addressed to change school cultures and practices (Carrington & Robinson, 2004; Jordan, 2007). In order to deconstruct what best practices are towards inclusive education it is necessary to look at educators' perspectives on inclusive education, be they as regular classroom teachers, resource teachers, non-teaching professionals and support staff.

Clearly, the perspective of educators' educational practices has a bearing on how inclusive education is implemented and delivered (Ainscow, 1999). Ryan and Joong (2005) addressed this issue and observed that regular classroom teachers play a pivotal role in inclusive education by: a) understanding the processes of exclusion and inclusion, b)having a personal relationship with their students, c) playing a key role in education reforms, d) communicating and transferring their knowledge to other school personnel, e) creating and delivering the school curriculum, and f) most importantly, they set the tone for student successes within the classroom. This last point is further exemplified by Robertson, Chamberlain, and Kasari (2003) who found that when regular classroom teachers approached their students with autism in a more positive manner they were more likely to encounter fewer autism-related behavioural problems, a phenomenon that allowed these students to be more socially accepted in the classroom by their

non-disabled peers. It seems clear that regular classroom teachers are central to the successful implementation of inclusive education.

The majority of research continues to show that inclusive education for children with a developmental disability who receive instruction in a regular classroom setting is the most effective model to enhance the cognitive, social, and behavioural performances for all students not just those with a disability (Diamond, 2001; Freeman & Alkin, 2000; Fryxell & Kennedy, 1995). Specifically, children with differing developmental disabilities, who are taught in the regular classrooms, display higher levels of engagement and social interaction; give and receive higher levels of social support; have larger friendship networks; and have higher overall academic performance (Fryxell & Kennedy, 1995; Pavri & Monda-Amaya, 2001).

Although it is clear that children with different developmental disabilities benefit from being in regular classroom settings, there is a reluctance to adopt and implement inclusive educational methodologies. This reluctance may be the result of teachers' negative attitudes and perceptions towards inclusive education (Ma & Hanrahan, 2002; Subban & Sharma, 2006); a lack of acquired skill or expertise in inclusive educational practices (Wilkins & Nietfled, 2004); a lack of personnel and material resources (Stanovich & Jordan, 1998; Winzer, 2002); and unclear role expectations for regular and special education teachers (Lupart, 2001). Teachers' negative attitudes and perceptions and their lack of acquired skills and knowledge will be further illustrated in the following sections. At this point it is worth noting that there is much confusion around what it is that teachers require in order to build inclusive classroom cultures and practices. The widespread view amongst teachers that a greater knowledge of traditional special educational theory and practice fulfils this requirement needs to be challenged in changing educational contexts.

Negative Attitudes and Perceptions of Educators at all Levels

The attitudes and perceptions of educators are crucial factors in implementing changes in the educational systems. Sarason (1995) argued that educators' attitudes and perceptions are the essential contributing factors that must be addressed in order for schools to move towards an inclusive educational model. In fact, the attitudes among educators will determine the success of inclusive practices and implementation within their school systems (Fullan, 1991). For example, Cook, Semmel, and Gerber (1999) identified that among a school's personnel, it is the non-teaching professionals' (e.g. principal's, psychologists, consultants etc.) attitudes toward inclusion that exerts a very powerful influence on the likelihood of implementing inclusion within the schools because they perform general supervisory duties over all other school personnel. In addition, Brotherson, Sheriff, Milburn, and Schertz (2001) found that principals generally feel that they do not have the power, time, money, space, or training to develop an inclusive environment, and are experiencing what they refer to as *'inclusion jetlag'*- the gap between the inclusive education legislation and the actual prevalence of these mandated services in school environments. In addition to the influence of non-teaching professionals, others have argued that resource teachers also have a very powerful influence, as their perceptions on inclusive education can determine the positive or negative outcome of a child's school experiences. For instance, Jahnukainen and Korhonen, (2003) and Fox and Ysseldyke (1997) concluded that special education and/or resource teachers are relied on to *"sell"* inclusion to the general education teachers, who generally have a very negative attitude towards inclusion. Therefore, successful implementation of inclusive education may require that non-teaching professionals and resource teachers be fully involved in sharing a clear, positive vision of

inclusion with colleagues and community members (e.g. parents). Booth & Ainscow (2002), working with the Centre for Studies in Inclusive Education in the UK, have developed comprehensive guidelines for enlisting the school community in an examination of its culture, policies and practices to dismantle barriers to inclusive education.

Moreover, support staff (also known as educational assistants, integrated aides or teaching or inclusion assistants) play a key role towards the provision of school inclusion (Balshaw & Farrell, 2002). Although often highly overlooked, support staff are involved in decision-making concerning instructional content and practices for students with disabilities and therefore can determine the success towards school inclusion (Tews & Lupart, 2008). Angelides, Constantinou, and Leigh (2009) recently argued that support staff provides more primary care (one-on-one time) for students with differing developmental disabilities than the regular classroom teachers. Support staff may not be aware of the positive social, behavioural, and cognitive impacts that their work has on the success of inclusive programs. The issue that needs to be investigated and challenged is the extent to which children are assigned to support staff as a de facto means for removing them from the classroom.

Although attitudes and perceptions of all school personnel may determine the success of an 'inclusive educational movement', there are other variables which may contribute to the inclusion challenges. These variables include: 1) *gender and age*: females and younger faculty members were shown to have a more positive attitude towards inclusive education than the male faculty members (Avramadis, Bayliss & Burden, 2000; Kleinsasser, 1999); 2) *experience*: staff with prior experience of working with children with disabilities reported to have a more positive attitude on inclusive education (Williamson et al., , 2006); 3) *department affiliation*: educators who teach what are often referred to as "soft" courses (e.g. social studies or humanities) favoured

inclusion more than educators who teach "hard" courses (e.g. math or sciences), (Avramadis et al., 2000; Rao, 2004); 4) *disability type*: educators who teach children with mild disabilities (e.g. learning disabilities) have a more positive outlook on inclusive education than educators who teach children with severe disabilities and behavioural problems (Keel, Dangel & Owens, 1999; Scruggs & Mastropieri, 1996; Sindelar, 1995; Wilkins & Nietfield, 2004); and 5) *class load*: overcrowded classrooms, inflexible timetables, and lack of time to collaborate with parents and special needs consultants, psychologists and other mental health care practitioners may all contribute towards the slow movement of inclusion (Bradshaw & Mundia, 2006; Smith & Smith, 2000). All of the above factors have been reported to have a significant influence on the successful implementation of inclusive education and practices.

Lack of Acquired Skills or Knowledge in Inclusive Educational Best Practices

Insufficient knowledge about inclusive practices, different developmental disabilities, and school policies, has been seen as a deterrent to inclusive practices (Disability Services Queensland, 2000; Rao, 2004). Gilmore, Campbell, and Cuskelly (2003) studied experienced educators and general community members' knowledge about Down syndrome and their attitudes toward inclusive education. Their data indicated that teachers were found to have had a greater understanding of Down syndrome than the community members, yet both groups had significant misconceptions about these children (e.g., shorter life expectancy). These misconceptions contributed to a majority belief (80%) that students with Down syndrome would be better suited if placed in segregated special classrooms. This example underscores the need for all educators to develop specialized knowledge about working in an inclusive classroom or

setting among with children with different developmental disabilities (Bradshaw & Mundia, 2006).

Educational System within Province: The case of Montréal, Québec

Montréal, Québec presents a unique and distinct culture within the Canadian context. Recent statistics from the Government of Québec (2006) indicate that there are approximately 7.5 million people in Québec with almost half of Québec's residents living in Montréal and the Greater Montréal region. The official language in Québec is French, with approximately 83.1% primarily speaking this language. Furthermore, in most educational institutions in Québec, French is the language of instruction. Under the Charter of the French Language, schooling is to be given in French at the preschool, elementary, and secondary levels. But, some students who meet specific requirements of the Charter may receive their schooling in English (Statistics Canada, 2001).

Currently, it is mainly the English school boards within the Montréal, Québec area that are engaged in inclusive educational practices. Thus, children attending French schools do not benefit from inclusionary educational best practices. To date, the French School boards within Montréal and the surrounding areas of Québec maintain segregated school systems whereby children with developmental disabilities are placed in specialized classrooms and not taught among their non-disabled peers.

Although the government body (Ministère de l'Éducation, du Loisir et du Sport) in Québec promotes access to inclusive education for all children it is not a clearly defined mandate within school boards. As a result, both English and French school boards in Montréal and the surrounding areas of Québec work under a different premise of inclusion. Therefore, in Québec, there is a lack of consistency among each school board regarding how to facilitate inclusive

education (Andrews & Lupart, 2000). This lack of a comprehensive policy can delay in the development of inclusionary best practices, specialized programs and/or IEPs and impede on the uptake and transference of current resources, training and professional development for educators at all levels.

Present Study

Rationale

Given the substantial advances in the understanding of different developmental disabilities, it is important that the new information be transferred to educators who in turn incorporate these ideas into an IEP. This argument is particularly pertinent, given that in order for educators to support their pupils' learning in an inclusive classroom or setting, they will need to possess appropriate levels of confidence, experience, knowledge, and skill. Therefore, it is essential that educators at all levels (e.g. regular classroom teachers, resource teachers, non-teaching professionalsand support staff etc) who assist in the development of an IEP, are knowledgeable regarding the different developmental disabilities in order to best serve each student appropriately. Establishing a common ground of understanding and acceptance of differences would be a first step in creating the kind of inclusiveness culture where educators are able to meet the task of educating children with different developmental disabilities. Unfortunately, this task is not always met, as educators at all levels continue to feel that they do not have enough resources and knowledge to distinguish between the different disabilities (Wilson & Mazzocco, 1993; York, Fraunhofer, Turk, & Sedgwick, 1999) and are therefore, discouraged towards facilitating school inclusion. This lack of understanding and reluctance towards inclusive education among all educators can pose a challenge to the development of an

appropriate IEP and a positive learning experience for all children with differing developmental disabilities.

To date, a number of studies have examined the perceptions, knowledge and attitudes of either solely regular classroom teachers, or paraprofessionals etc; working in an inclusive educational system (Brotherson et al., 2001; Kamens et al., 2000). However, relatively few studies have collectively examined the needs of educators at all levels (e.g. regular classroom teachers, resource teachers, non teaching professionals, and support staff). Since inclusive education is based on the fundamental premise of collaborative work, an understanding of all levels of educators' perceptions seems the logical place to start. The collaborative nature of inclusive education requires that positive outlooks be shared by all; it is this type of positive educational climate that is needed to maximize each student's full learning potential.

The core objectives of the present study are to assess educators' perceptions of inclusion by specifically addressing their knowledge of and attitudes (e.g. perceived challenges, stressor and success) when working with students with different developmental disabilities in inclusive environments. Two main questions address these core objectives:

1- Are there differences among the four groups of educators in their reported knowledge of working with children with different developmental disabilities in an inclusive setting?

2- Are there differences among the four groups of educators of what they perceive as challenges, stressors and successes working with children with different developmental disabilities in inclusive educational settings?

The English-speaking schools of Montréal, Québec are chosen as a focus for these questions because they provide a very unique context for studying inclusive educational practices. Inclusive education is not mandated within the province of Québec, and therefore each

school board has opted to define and implement inclusive education according to its own unique vision. This has created a situation of considerable pedagogical diversity across the nine school boards. Results to the above-mentioned questions will provide a glance of the current inclusionary experiences educators at all levels are facing in the province of Québec, and assess the needs as well provide suggestions that may enhance inclusionary best practices for all school personnel.

Research Methods

Total Respondents

Primary school educators (kindergarten – grade 6) employed by public English speaking school boards who work in an inclusive setting in both metro/urban and rural areas of Montréal, Québec participated in the present study. Respondents represented four main groups which included regular classroom teachers (n = 287), resource teachers (n = 102), non-teaching professionals (n = 84) (e.g. occupational therapists, speech pathologists, school administrators, psychologists, special needs consultants, guidance counsellors), and support staff (n = 127) (e.g. child care workers, special ed. technicians, preposé/ integrated aids, school administrative staff) Demographic characteristics across the sample are presented in Table 1.

TABLE 1

Procedures

Two approaches to recruitment were applied to ensure the highest possible response rate. The first approach consisted of packages mailed to all nine English School Boards of Québec, Canada. The package included a sample survey, a cover letter explaining the nature and purpose of the research, ethics certificate, a request for authorization to contact each school under its

jurisdiction that practices inclusion, and a stamped postcard addressed to the principal investigator. Recipient schools were instructed to mail the postcard upon receipt of the package. Two weeks after a postcard was received follow up phone calls and/or e-mails were exchanged to obtain authorization to contact principals of schools within their jurisdiction and to request their participation. If postcards were not returned within a two – week period the school board was contacted again by phone and authorization to contact schools was secured. All nine school boards agreed to participate. Surveys and prepaid return envelopes were mailed to each participating school along with instructions and directions for returning the completed surveys.

A second method of securing participation was to approach educators during professional development days where they attend educator-specific conventions such as Québec Provincial Association of Teachers (QPAT), and other training sessions being conducted at various levels (e.g., the local school board, Ministry of Education, local schools etc). During these days, information about the research study was delivered directly to participants and surveys were collected on site.

Of the total 600 surveys received, the majority 75% (n=450) was collected at professional development events and 15% (n=150) of the surveys were collected directly from schools.

Research Instrument

Survey data were obtained using a newly developed survey titled: "The Québec Survey on Educating Students with Developmental Disorders in Inclusive Settings". Although the education system of Canada parallels that of the United States and even other countries around the world (e.g. United Kingdom), in the move towards inclusive education, the outcome of these surveys conducted with general classroom teachers, and other school personnel cannot be directly applied to Québec's educational system. Hence, the rationale for constructing a new

measurement tool was based on the criteria that it be user-friendly, jargon free but where the language and terms are familiar within Québec's educational context. For example, the word *préposé* is used interchangeably with *integration aid* in some schools in Montreal, Québec. A préposé /integration aid assists in the inclusion of students with special needs.

After an extensive review on empirical research on educators' perceptions and attitudes towards inclusive education, (see Gilmore et al., 2003; Wilkins & Nietfeld, 2004 for examples) a first draft of the survey was constructed by the lead researcher. Further drafts were composed after having solicited feedback from educators who work in an inclusive setting. More specifically, a panel of general classroom teachers, resource specialists, and school board consultants, who work within an inclusive setting, verified that the newly developed survey measured what it was intended to measure. As a result, the final survey consisted of 38 questions with four main domains. The final version of the survey was field-tested among 20 teachers who had experience working in an inclusive educational setting among children with different developmental disabilities. Following this, additional minor revisions concerning the language, terminology, and formulation of the questions were made.

The newly designed survey was geared specifically to educators at all levels (teachers, resource teachers, non-teaching professionals and support staff) who work within an inclusive educational system, in the elementary schools in the province of Québec. The survey provided information regarding: a) the current state of resources available to educators, b) the level of knowledge of different developmental disabilities among all educators, c) their training and professional development experiences relative to different developmental disabilities in inclusive settings, and d) their attitudes towards inclusive education.

The final survey incorporated 38 questions and was divided into four sections. Section A provided descriptive information regarding demographics and background information (e.g. education level, position etc.). Section B (9 items), assessed educators' perception of current level of resources Section C (11 items), assessed educators' current level of knowledge when working with students with different developmental disabilities. It also targeted their experiences with in-servicing training. Section D (14 items) asked educators' to identify the specific challenges and stressors when working with the inclusion of students with different developmental disabilities into regular classroom. This section also asked about their needs with regard to the types of resources and training that would facilitate inclusive practices for all children. Lastly, space was allowed where participants could further comment on inclusive educational practices and indicate at the end of the survey whether they would be interested in future discussions regarding inclusive practices.

Once the survey had been finalized it was formatted using Snap Surveys Software (Snap Surveys Ltd., 2006). Snap surveys (version 9) is a powerful program that is used for the design, publication and basic statistical analysis (frequency, descriptive) of surveys. The use of Snap ensured that the wording was clear, sequencing of questions was correct and the survey was structured in a user-friendly manner.

Given the amount of data obtained, three data reviewers worked independently and inputted the results in the Snap Surveys Software program to ensure accurate coding of the data. The advantage of having three data reviewers reduced the likelihood of inputting errors and assured high consistency, accuracy, and repeatability of the results (Johnson & Christensen, 2004; Joppe, 2000). In addition to data input, the primary researcher randomly verified 10% of the surveys to ensure there were no data entry errors.

Data Analysis:

Data were analyzed by a variety of statistical techniques to address the study's core objectives. For the first objective, assessing differences among the four groups of educators in their perceived level of knowledge on different developmental disabilities, interval data were obtained using a four-point Likert scale (4 = high knowledge, 3 = moderate knowledge, 2 = low knowledge, 1 = very low knowledge). An analysis of variance (ANOVA) was performed using the Statistical Package for the Social Sciences (SPSS 17.0). ANOVA provides greater flexibility and power with respects to violations of normality (Kirk, 1999). Post hoc comparisons were computed to identify educators groups that differed the most from other groups in mean values. A Bonferroni correction was applied to control for inflated type I error (.05/6). A p-value of .008 was therefore established for post hoc tests. Where assumptions of homogeneity were met a post hoc test using the Tukey test was used otherwise the Tamhane's test was used because it is robust to the violation of homogeneity of the variance assumption (George & Mallery, 2006).

For the second core objective, assessing educators' perceptions of attitudes working in inclusive educational settings descriptive statistics, frequency distributions, and percentages were computed for each item of the survey pertaining to attitudes. Chi-square tests were performed to establish associations among the four groups of educators in their self-reported of perceived attitudes (challenges, stressors and successes) working with students with different developmental disabilities in an inclusive educational setting. A Bonferroni correction was applied to control for inflated type I error (.05/8) for the challenges, stressors and (.05/5) for the success categories. A p-value of .006 for the challenges and stressors categories was established whereas a p-value of .01 (.05/5) was set for the success category.

Results

Educators perceived knowledge of different developmental disabilities in regular classrooms

The following section reports the results of the ANOVA for the four educators groups for each of the eight developmental disabilities. Descriptive statistics for each group's perceived level of knowledge of different developmental disabilities are displayed in table 2.

TABLE 2

The results of the one-way ANOVA revealed significant differences across the four groups of educators for *Attention Deficit Disorder* (*ADHD)* F (3, 570) = 9.04, p < .008, *Autism* F (3, 547) = 31.13, p <.008, *Down Syndrome* F (3, 576) = 35.63, p <.008, *Fragile X Syndrome* (*FXS)* F (3, 517) = 17.33, p <.008, *Language Disorders F (3, 551) = 9.057, p <.008, Tourettes syndrome* F (3, 525) = 12.24, p <.008, *Learning disabilities* F (3, 561) = 16.37, p <.008, and *Intellectual disabilities* (3, 522) = 24.37, p <.008.

Post-hoc analysis using Tukey's test revealed that regular classroom teachers perceived themselves as having a higher level of knowledge : a) *of ADHD* than resource teachers (p<.001) or non-teaching professionals (p<.001); b) of *Down Syndrome* than non-teaching professionals(p<.001) and support staff (p<.001), c) of *FXS* than non-teaching professionals(p<.001) and support staff (p<.001); d) *of Tourettes Syndrome* than non-teaching professionals(p<.001), and e) of *Learning Disabilities* than resource teachers (p<.001) and non-teaching professionals(p<.001) respectively. As well, the Tukey`s test of significance revealed that resource teachers perceived themselves as having a high level of knowledge: a) of *Down Syndrome* than non-teaching professionals(p<.001) and support staff (p<.001); and b) of FXS than non-teaching professionals(p<.001) and support staff (p<.003).

Similarly, post-hoc analysis using the Tamhane's test revealed that regular classroom teachers perceived a higher level of knowledge: a) *of Autism* than non-teaching professionals ($p<.001$), and support staff ($p<.001$)., b) *of Language Disorders* than resource teachers ($p<.001$) and non-teaching professionals($p<.001$); and c) of *Intellectual Disabilities* than resource teachers ($p<.001$), non-teaching professionals ($p<.001$), and support staff ($p<.001$). Additionally, the Tamhane`s test revealed that support staff perceived themselves as having a high level of knowledge on *Language Disorders* than non-teaching professionals($p<.003$). Moreover, resource teachers perceived themselves as having a high level of knowledge on Intellectual Disabilities than non-teaching professionals($p<.003$).

Attitudes of Educators: Challenges, Stressors, Successes

The second question addresses educators' perceived attitudes in the areas of challenges, stressors, and successes working in inclusive educational settings. Descriptive statistics for these three categories are summarized in tables 3, 4, and 5.

Challenges

Chi-square tests, with an adjusted alpha level of .006, were performed to examine differences among the four groups of educators regarding their perceived challenges working in an inclusive educational setting. Chi-square tests of significance revealed that the four groups of educators varied in their responses regarding: *Managing classrooms*, χ^2 (3, N = 388) = 13.251, $p<.004$, *Implementing an IEP*, χ^2 (3, N = 309) = 19.966, $p< .001$, *Negative staff attitudes towards students with different developmental disabilities*, χ^2 (3, N = 261) = 46.884, $p <.001$, *Lack of resources* χ^2 (3, N = 336) = 17.181, $p < .001$, and *Lack of funds for*

specialized programs, χ^2 (3, *N* = 388) = 12.411, *p* <.006. Descriptive statistics revealed that the significant chi square results seem to be accounted for by the perceptions of resource teachers (61.0%) and non-teaching professionals (57.5%) as they endorsed a higher total number of challenges working in an inclusive educational setting than regular classroom teachers (50.0%) and support staff (49.40%) (See table 3 for complete distribution of frequencies). Some items listed under the Challenges category were not statistically significant such as *Difficulty increasing interaction among all students*, χ^2 (3, N = 287) = 5.059, p <.168, *Lack of support from staff members* χ^2 (3, *N* = 175) = 3.512, *p* <.319, *and Lack of funds to implement specialized workshops* χ^2 (3, *N* = 285) = 11.553, *p* <.009. This suggested that there was no variability in their endorsement of what they perceived as challenges among the four groups; nevertheless they were seen as challenges. Noteworthy, although *Lack of funds to implement specialized workshops* showed to be non significant, more than half of resource teachers (65.3%) perceived this item as a challenge compared to the other groups of educators.

TABLE 3

Stressors

Chi-square tests, with an adjusted alpha level of .006, were performed to examine the differences among the four groups regarding their perceived stressors within the inclusive educational work setting. Chi-square tests indicated that the four groups of educators varied in their responses regarding: *Sustaining an active learning environment for all children*, χ^2 (3, N = 352) = 24.953, p <.001, *Being accountable for all students educational outcomes*, χ^2 (3, *N* = 290) = 37.153, *p* <.001, *Developing an IEP*, χ^2 (3, *N* = 219) = 20.841, *p* <.001, *Obtaining*

funding χ^2 (3, *N* = 269) = 29.908, *p* <.001, *and Working with students who have inappropriate social behaviours*, χ^2 (3, *N* = 316) = 12.851, *p* <.005. Descriptive statistics revealed that the significant chi square results seem to be accounted for by the perceptions of resource teachers (57.6%) and regular classroom teachers (50.5%) as these groups endorsed a higher total number of stressors working in an inclusive educational setting than non-teaching professionals (49.4%) and support staff (39.4%) (Refer to table 4 for complete distribution of frequencies between educators across the list of stressors). While Items*: Lack of parental support*, χ^2 (3, N = 279) = 9.642, p <.022, *Working with students with a poor attention span*, χ^2 (3, *N* = 250) = 9.420, *p* <.024*, and Establishing a rapport with a child's parents*, χ^2 (3, *N* = 66) = 9.152, *p* <.027 were seen as stressors there was no variability in their endorsement of what they perceived as stressors among the four groups therefore, these items were not statistically significant. Although results were non significant for the item *Lack of parental support*, descriptive statistics showed that all four groups endorsed this item above 50% with resource teachers endorsing this item (63.5%) the highest among the groups. Similarly, although the item *Working with students with a poor attention span* was not significant, resource teachers (56.3%) perceived this item as a stressor compared to the other groups of educators.

TABLE 4

Successes

Chi-square tests, with an adjusted alpha level of .01, were used to test for differences among the four groups of educators regarding their perceived successes working in an inclusive

educational setting. Chi-square tests indicated that the four groups of educators varied in their responses regarding: *Increase social interaction among all students*, χ^2 (3, N = 213) = 20.269, p <.001, *Increase acceptance, compassion and awareness of students with different developmental disabilities among typical students*, χ^2 (3, N = 404) = 31.968, p <.001, *Increase acceptance, compassion and awareness of students with different developmental disabilities among staff* χ^2 (3, N = 253) = 17.066, p <.001, and *Increase collaboration and partnerships with parents* χ^2 (3, N = 213) = 25.928, p < .001. Descriptive statistics revealed that the significant chi square results seem to be accounted for by the perceptions of non-teaching professionals (60.3%) and resource teachers (50.3%) as they endorsed a higher total number of successes working in an inclusive educational setting than support staff (49.3%) and regular classroom teachers (40.8%) (Refer to table 5 for complete distribution of frequencies between educators across the list of successes). The item *None of the above* was included to determine whether some educators perceived the inclusion of children with differing developmental disabilities as having no successes. There was no variability among the four groups of educators in their endorsement of what they perceived as having "no successes" working in an inclusive setting. Therefore, these items were not statistically significant. In fact, a small percentage of classroom teachers (10.0%), resource teachers (1.2%), non-teaching professionals (3.9%), and support staff (4.4%) perceived "no successes" working in an inclusive classroom setting.

TABLE 5

Discussion

The main objective of the present study was to bridge a gap in the existing literature regarding educators' perceptions of knowledge of different developmental disabilities and attitudes (i.e., challenges, stressors, and successes) in working with students with differing developmental disabilities in an inclusive school setting.

The results from a survey of 600 educators revealed two important findings. First, educators at all levels reported having limited knowledge regarding different developmental disabilities. Second, in spite of the widespread view that those who work in an inclusive setting share very similar attitudes and experiences; this study revealed that there is great variability between different groups of educators with regard to their attitudes in working in an inclusive school setting. We describe both findings in details below.

Perceptions of limited knowledge level regarding different developmental disabilities

Our findings reveal consistent patterns among the differing groups of educators with regard to their level of perceived knowledge about different developmental disabilities. Specifically, that regular classroom teacher perceives themselves to have the highest level of knowledge compared to the other groups of educators. This is consistent with the literature on school inclusion which has identified a number of roles and responsibilities that regular classroom teachers assume in order to sustain a successful inclusionary experience for students and all school personnel (Lupart & Webber, 2002). Within the current system, regular classroom teachers are generally responsible for communicating, creating and transferring the current knowledge on students' academic, social, and behavioural profiles to their colleagues. Given the range of tasks general classroom teachers are required to perform, it would be expected that they

would have a high level of knowledge on each students overall profiles. However, surprisingly, the present findings demonstrate that regular classroom teachers perceive themselves to have a low to moderate level of knowledge on differing developmental disabilities. These results are concerning because if regular classroom teachers do not sustain a high level of current knowledge on different developmental disabilities then how can they deliver what they know to other school personnel. Perhaps these findings may hint as to why the other groups of educators (resource teachers, support staff and non teaching professionals) reported to have a much lower level of knowledge on different developmental disabilities. One possible reason may be that regular classroom teachers do not feel confident in what they know, and/or do not have enough resources and time to share up-to-date information with their colleagues.

The most surprising finding in assessing the educators' knowledge on different developmental disabilities was the relatively low level of knowledge reported by the non-teaching professionals group. The non-teaching professionals group report, on average, the least amount of knowledge relative to the other groups. These findings were surprising considering that as a group, more than half of the non-teaching professionals (62.3%) have obtained the highest level of post-graduate education (i.e., Masters and Doctorate). It would be expected that knowledge about inclusive education and different developmental disabilities be a component of their graduate training in education and psychology however; this cannot be concluded given these finding. If specific training and skills on developmental disabilities and inclusive education are not attained or reinforced during graduate school then it would be stressful for the non-teaching professionals to maintain an expert role in offering feedback, information and knowledge on best inclusive practices regarding children with different developmental disabilities. In fact, literature has shown that non-teaching professionals reported high levels of

stress in assisting regular classroom teachers manage their students' behaviours within the inclusive classroom; lack the competence in implementing relevant up-to-date educational strategies for diverse learners, and providing parents with unique parenting practices that target their child's strengths (Leung, Chan, & Leahy, 2007; Parette & Holder-Brown, 1994). These feelings of stress and incompetence may be due to the limited time they have to attend workshops on developmental disabilities and seek current resources that will provide them with the current knowledge they should attain in order to effectively assist their colleagues in implementing inclusionary best practices within the educational system.

Attitudinal Differences among educators working in inclusive settings

Our findings indicate that educators at all levels hold differences of opinion regarding specific challenges, stressors, and successes towards school inclusion. For example, resource teachers (61.0%) and non-teaching professionals (57.5%) reported the highest number of challenges working in inclusive school settings compared to regular classroom teachers and support staff. These challenges include managing classrooms, implementing an IE*P*, negative staff attitudes towards students with different developmental disabilities, lack of resources, and lack of funds for specialized programs. One explanation for the pattern of these findings is that both resource teachers and non-teaching professionals' tasks require them to acquire the skills to work intensively one-on-one with students who are considered "high risk" and in need of behavioural, cognitive and emotional support. Therefore, both resource teachers and non-teaching professionals may perceive many more challenges because they are expected not only to better facilitate a student's academic learning but as well, provide ongoing emotional, behavioural support to them and their families. Hence, as advocates working with all children regardless of

their developmental disability the resource teachers and non-teaching professionals would expect to have a more specialized kind of education and may have higher expectations as to what they consider “authentic school inclusion” (Lupart, 2000) a term that is used to describe when a school has oobtained the best inclusionary practices, legislation, policy and outcomes.

Similarly, resource teachers (57.6%) not only endorsed the highest level of challenges but as well stressors, followed by regular classroom teachers (50.5%). These stressors include sustaining an active learning environment, being accountable for all students’ educational outcomes, developing an IEP, obtaining funding, and working with students with inappropriate behaviours. These findings are not surprising as these groups of stressors capsulate the daily stressors teachers (both regular classroom and resource teachers) experience as front line workers who generally spend the most time working directly with all students managing their academic, and behavioural outcomes. The non-teaching professionals and support staff, however, are not usually recognized as the primary educators and thus, do not generally deal with these stressors on a daily basis.

Interestingly, non-teaching professionals (60.3%) perceived the inclusive environment as having the highest level of successes followed by resource teachers (50.3%). Given that resource teachers found school inclusion both challenging and stressful, and non-teaching professionals reported many challenges, it is surprising that these groups of educators reported the most successes. However, one can interpret this result in light of their level of professional commitment in inclusive education. These two groups of educators have greater specialized knowledge and higher level of commitment. Therefore, despite the challenges and stressors they reported, these groups of educators are likely to believe in the importance and benefits of inclusive education. In other words, non-teaching professionals and resource teachers more

readily recognize the challenges and stressors involved in practicing inclusive education. This is supported by Garvar-Pinhas and Schmelkin (1989) who state that educators with a higher level of commitment, role and responsibility, tend to monitor and/or respond in a more socially appropriate manner than may be the case in reality. In other words, when applied to the results of this study, it is plausible that non-teaching professionals and resource teachers responded in a socially appropriate manner that is consistent with their identity and beliefs system. Therefore, the non-teaching professionals and resource teachers may recognize more successes working in an inclusionary setting because they believe that by maintaining a positive outlook on school inclusion will provide an optimal inclusionary experience for all children and other educators alike.

All together, these findings highlight the attitudinal differences and range of knowledge amongst the four groups of educators. These findings have implications for the implementation and outcomes of inclusive education and practices.

Implications and Recommendations for Practice

The findings of the present study offer implications for schools and generally for the field of inclusive education, and educational policy. Given the advance of new knowledge in such domains as disability studies and educational psychology, it is a challenge for educators to stay up to date with current trends. The results of this study indicate that educators at all levels reported to possess very minimal knowledge on different developmental disabilities. Therefore, an increase of knowledge will better prepare educators to develop educational plans and demonstrate competency in making appropriate curricular modifications to better meet the needs of all students. Thus, more intensive and specific education programs on developmental

disabilities need to be implemented in order for educators to become highly knowledgeable on the learning needs of children with developmental disabilities. Only then will best pedagogical practices be carried out in inclusive school settings (Brownell & Pajares 1999). As such, undergraduate programs (e.g., Bachelors in Education) should provide specific training opportunities for pre-service educators where they are able to gain awareness of the tasks and roles they need to carry through in order to work successfully in an inclusive school environment.

The second implication arising from the findings of this study is the many perceived challenges and stressors key school personnel (e.g. school psychologists, teachers) reported working in an inclusive school setting. It has been argued that the positive experiences lived and shared by key school personnel were seen as important prerequisites for introducing, maintaining, and implementing school inclusion (Cook, Semmel, & Gerber, 1999; Praisner, 2003; Scruggs & Mastropieri, 1996). Therefore, it is crucial that key school personnel who are involved in the policy making regarding the implementation of inclusive education possess an optimistic attitude on the benefits of inclusionary best practices as the support for change and inclusionary development is determined by the values and attitudes they hold. As well, it is important that these key school personnel take on a collaborative approach to implementing and practicing inclusive education. This would mean that educators at all levels are given the opportunity to be involved in the decision making process whereby everyone is able to voice their needs and concerns in order to enhance the efficacy of school inclusion.

Limitations:

While the findings from this study offer several insight into educators' level of knowledge and attitudes toward inclusive education and different developmental disabilities this study, has its limitations. First, because there was no direct observation conducted and the data are based solely on self-reports the findings are limited to the educators' perceptions of knowledge and attitudes rather than actual practice within inclusive settings. Therefore, if information was obtained through direct observations it may provide a more detailed and accurate description of the inclusionary experiences educators are facing within the Québec educational system. Secondly, the findings from this study cannot be generalized to other school settings and in other geographic locations because this study specifically assessed educators at all levels from the province of Québec and information was obtained solely from elementary school level educators. Third, the results are limited by the content o f the survey domains. The survey was specifically designed to gather information to answer the research questions. Therefore, it is not known whether there are other important areas that needed to be addressed that can better measure the inclusionary experiences of educators in Québec. Despite these limitations, this study offers a large sample of respondents from different groups of educators which provide a unique opportunity to further explore service delivery practices in inclusionary schools in Québec. Moreover, this study involved attitudes towards the inclusion of students with a wide range of developmental disabilities and not solely mild disabilities, which very few studies have carried out to date.

Conclusion and Future Research:

Educators play an influential role in the implementation and success of school inclusion and inclusionary best practices. This study provided a snap shot of the perceived inclusionary experiences educators are facing at all levels in Montréal, Québec, which influences their attitudes. This study further assessed their perceived level of knowledge on different developmental disabilities. Findings suggest that the lack of resources available to educators brings about challenges and stressors in practicing inclusive education. The findings further show that knowledge on developmental disabilities is lacking in inclusive school settings. This is likely to bring about even more challenges and stressors, as different educators need to work collaboratively to implement best practices in inclusive education. There still remains much to assess, establish, develop, and refine in order to study the efficacy of inclusive education. Future research needs to utilize direct observation methods to assess the knowledge base and attitudes of not solely all school personnel but all students as well in various academic settings, such as from the elementary and the high school. Such an attempt to better understand inclusive education practices at all grade levels plus obtaining the inclusionary experiences from students will provide invaluable information to better shape the inclusive practices and policies.

Table 1:

Demographic table of respondents' gender, age, education and years of teaching experience by position

	Number (%) [a]			
	Classroom Teachers	*Resource Teachers*	*Non Teaching Professionals*	*Support Staff*
	n= 287 (47.8)	*n= 102 (17.0)*	*n= 84 (14.0)*	*n= 127 (21.2)*
Gender				
Male	54 (18.8)	4 (3.9)	13 (15.5)	15 (11.8)
Female	233 (81.2)	98 (96.1)	71 (84.5)	112 (88.2)
	n=282 (47.7)	*n= 101 (17.1)*	*n= 84 (14.2)*	*n= 124 (21.0)*
Age				
20-25	46 (16.3)	4 (4.0)	1 (1.2)	9 (7.3)
26-35	85 (30.1)	22 (21.8)	22 (26.2)	26 (21.0)
36-45	55 (19.5)	29 (28.7)	24 (28.6)	33 (26.6)
46+	96 (34.0)	46 (45.5)	37 (44.0)	56 (45.2)
	n=277 (47.0)	*n= 102 (17.3)*	*n= 84 (14.1)*	*n= 127 (21.6)*
Education				
High school	-	-	-	18 (14.2)
CEGEP	-	-	-	39 (30.7)
Undergraduate degree	49 (17.7)	11 (10.8)	10 (12.0)	39 (30.7)
B.Ed degree	147 (53.1)	61 (59.8)	10 (12.0)	11 (8.7)
Inclusive Ed certificate	32 (11.6)	7 (6.9)	3 (3.6)	12 (9.4)
Masters degree	45 (16.2)	21 (20.6)	48 (57.8)	6 (4.7)
Doctorate degree	4 (1.4)	2 (2.0)	12 (4.5)	2 (1.6)

[a] *The number of respondents varied because of missing responses*

Table 2:

Means and Standard Deviations for Group Differences in Educators Perceived Level Knowledge of Developmental Disabilities.

	Classroom Teachers	*Resource Teachers*	*Non Teaching Professionals*	*Support Staff*
Types of disabilities				
ADHD	1.96 (0.69)	1.65 (0.65)	1.60 (0.66)	1.88 (0.67)
Autism	2.51 (0.89)	2.20 (0.80)	1.88 (.767)	1.73 (0.69)
Down Syndrome	3.08 (0.87)	2.82 (0.87)	2.32 (0.80)	2.21 (0.83)
FXS	3.52 (0.68)	3.51 (0.66)	2.92 (0.79)	3.15 (0.89)
Language Disorders	2.45 (0.81)	2.10 (0.70)	2.02 (0.77)	2.43 (0.89)
Learning Disorders	2.03 (0.79)	1.57 (0.67)	1.51 (0.67)	1.83 (0.62)
Intellectual Delay	2.72 (0.92)	2.31 (0.90)	1.85 (0.70)	2.17 (0.85)
Tourettes Syndrome	3.16 (0.84)	2.86 (0.82)	2.51 (0.84)	2.89 (0.96)

** Statistically significant differences found at the adjusted $p < 0.008$ level*
Note. Means that are close to 4=high knowledge, 3=moderate knowledge, 2= low knowledge and 1=very low knowledge.

Table 3:

Perception of educators' current challenges working with students with different developmental disabilities (DD's) in an inclusive classroom

	Number (%) [a]			
	Classroom Teachers	*Resource Teachers*	*Non Teaching Professionals*	*Support Staff*
	n= 265 (47.7)	*n= 98 (17.6)*	*n= 75 (13.5)*	*n= 118 (21.2)*
*Current Challenges**				
Managing classrooms	176 (66.4)	79 (80.6)	60 (80.0)	73 (61.9)
Implementing an IEP	137 (51.7)	65 (66.3)	55 (73.3)	52 (44.1)
Negative staff attitudes towards students with DD's	84 (31.7)	58 (59.2)	43 (57.3)	76 (64.4)
Difficulty increasing interaction among all students	87 (32.8)	41 (41.8)	30 (40.0)	50 (42.4)
Lack of support from staff members	94 (35.5)	26 (26.5)	21 (28.0)	34 (28.8)
Lack of resources	168 (63.4)	71 (72.4)	40 (53.3)	57 (48.3)
Lack of funds for specialized programs	183 (69.1)	77 (78.6)	59 (78.7)	69 (58.5)
Lack of funds to implement specialized workshops	129 (48.7)	64 (65.3)	37 (49.3)	55 (46.6)

*collective responses from participants

[a] The number of respondents varied because of missing responses

Table 4:

Perception of educators' current stressors working with students with different developmental disabilities (DD's) in an inclusive classroom

		Number (%) [a]		
	Classroom Teachers n=242 (47.4)	*Resource Teachers* n= 96 (18.8)	*Non teaching Professionals* n= 72 (14.1)	*Support Staff* n= 101 (19.8)
*Current Stressors**				
Lack of parental support	129 (53.3)	61 (63.5)	38 (52.8)	51 (50.5)
Sustain an active learning Environment	169 (69.8)	73 (76.0)	57 (79.2)	53 (52.5)
Accountability for all students educational outcomes	148 (61.2)	67 (69.8)	41 (56.9)	34 (33.7)
Developing an IEP	107 (44.2)	52 (54.2)	32 (44.4)	28 (27.7)
Obtain funding	120 (49.6)	64 (66.7)	47 (65.3)	38 (37.6)
Working with students with a poor attention span	121 (50.0)	54 (56.3)	33 (45.8)	42 (41.6)
Working students who have inappropriate social behaviors	156 (64.5)	66 (68.8)	41 (56.9)	53 (52.5)
Establishing a rapport with child's parents	37 (15.3)	6 (6.3)	4 (5.6)	19 (18.8)

*collective responses from participants

[a] The number of respondents varied because of missing responses

Table 5:

Perception of educators' current successes working with students with different developmental disabilities in an inclusive classroom

Variables	*Number (%)* [a]			
	Classroom Teachers	*Resource Teachers*	*Non Teaching Professionals*	*Support Staff*
	n= 249 (46.6)	*n= 95 (17.8)*	*n= 76 (14.2)*	*n= 114 (21.3)*
*Current Successes**				
Increased social interaction among all students	159 (63.9)	76 (80.0)	62 (81.6)	90 (78.9)
Increase acceptance, compassion and awareness of students with developmental disabilities among typical students	161 (64.7)	77 (81.1)	67 (88.2)	99 (86.8)
Increase acceptance, compassion and awareness of students with developmental disabilities among the staff	102 (41.0)	49 (51.6)	50 (65.8)	52 (45.6)
Increased collaboration and partnerships with parents	86 (34.5)	37 (38.9)	50 (65.8)	40 (35.1)
None of the above	25 (10.0)	3 (1.2)	3 (3.9)	5 (4.4)

[a] The number of respondents varied because of missing responses

*collective responses from participants

References:

Ainscow, M. (1999). Understanding the development of inclusive schools. London: Falmer Press.

Andrews, J. & Lupart, J. (2000). The Inclusive Classroom: Educating Exceptional Children. Scarborough, ON: Nelson Thomson Learning.

Angelides, P. Constantinou, C. and Leigh, J. The Role of the Paraprofessionals in Developing Inclusive Education in Cyprus, European Journal of Special Needs Education, November, 2009, 24, 1, pp 75-89.

Avramidis, E., Bayliss, P., & Burden, R. (2000). Student teachers' attitudes towards the inclusion of children with special needs in the ordinary school. Teaching and Teacher Education, 16, 277-293.

Balshaw, M. & Farrell, P. (2002). Teacher assistants:Practical strategies for effective classroom support.London: Fulton.

Barton, L. (2003) Inclusive education and teacher education: A basis for hope or a discourse of delusion, (London, Institute of Education University of London).

Bradshaw, L., & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian inservice and preservice teachers. International Journal of Special Education, 21, 35-41.

Brantlinger, E. A. (2006) Who benefits from special education?: Remediating (fixing) other people's children,(Mahwah, N.J., L. Erlbaum Associates).

Brotherson, M., Sheriff, G., Milburn, P., & Schertz, M. (2001). Elementary school principals and their needs and issues for inclusive early childhood programs. Topics in Early Childhood Special Education, 21, 31-45.

Brownell, M. T., & Parjares, F. (1999). Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. Teacher Education and Special Education, 22, 154-164.

Bunch, G. O. & Valeo, A. (2008) Inclusive education : To do or not to do, (Toronto, Inclusion Press).

Bunch. G., Lupart, J. & Brown, M. (1997). Resistance and acceptance: Educator attitudes to inclusion of students with disabilities. North York: York University.

Carrington, S. & Robinson, R. (2004). A case study of inclusive school development: A journey of learning. The International Journal of Inclusive Education, 8 (2), 141-153.

Cook, B.G., Semmel, M.I., & Gerber, M.M. (1999). Attitudes of principles and special education teachers toward the inclusion of students with mild disabilities: critical differences of opinion. Remedial and special education, 20, 199-207.

Crawford, C. (2004) Fulfilling the social contract in public education., paper presented at the National Summit on Inclusive Education, Canadian Association for Community Living, Ottawa, Canada.

Disability Services Queensland (DSQ) 2000b. Priority panels get the thumbs up. Disability Views February Issue 2:6.

Diamond, K. E. (2001). Relationships amongst children's ideas, emotional understanding and social contact with classmates with disabilities. Topics in Early Childhood Special Education, 21,104-113.

Fox, N., & Ysseldyke, J.E. (1997). Implementing inclusion at the middle school level: Lessons from a negative example. Exceptional Children, 64, 81—98.

Freeman, F. & Alkin, M. (2000). Academic and social attainments of children with mental retardation in general education and special education settings. Remedial and Special Education, 21, 3-18.

Friend, M., Bursuck, W. D. and Hutchinson, N. L. (1998). Including exceptional students: A practical guide for classroom teachers. (Canadian edition). Scarborough, ONT: Prentice-Hall Canada.

Fryxell, D. & Kennedy, C. H. (1995). Placement along the continuum of services and its impact on student social relationships. Journal of the Association for Persons with Severe Handicaps, 20, 259-269.

Fullan, M. (1991). "The Best Faculty of Education in the Country: A Fable." Submitted to the Strategic Planning Committee. Faculty of Education, University of Toronto.

Garvar-Pinhas, A., & Schmelkin, L. P. (1989). Administrators' and teachers' attitudes towards mainstreaming. Remedial and Special Education, 10 (4), 38-43.

George, D. & Mallery, P. (2006), SPSS for Windows – a Simple Guide and Reference 13.0 Update, (6th Edition), A Pearson Education Company.

Gilmore, L., Campbell , J., & Cuskelly, M. (2003). Developmental expectations, personality stereotypes and attitudes towards inclusive education: Community and teacher views of Down syndrome. International Journal of Disability, Development and Education, 50 (1), 67-78.

Gouvernement du Québec(2006). Education in Quebec - an Overview. Ministère de l'Éducation, du Loisir et du Sport Direction des affaires internationales et canadiennes. www.mels.gouv.qc.ca

Jahnukainen, M., & Korhonen, A. (2003). Integration of students with severe and profound intellectual disabilities into the comprehensive school system: teachers' perceptions of the education reform in Finland. Internation journal of disability, development, and education, 50, 169-180.

Jenkins, J. R., & Heinen, A. (1989). Students' preferences for service delivery: Pull-out, in-class, or integrated models. Exceptional Children, 55, 516-523.

Johnson, R. B., & Christensen, L. B. (2004). Educational research: Quantitative, qualitative, and mixed approaches. Boston, MA: Allyn and Bacon.

Joppe, M. (2000). The Research Process. Retrieved December 16, 2006, from http://www.ryerson.ca/~mjoppe/rp.htm

Jordan, A. (2007). Introduction to inclusive education. Toronto: Wiley and sons.

Kamens, M.W., Loprete, S.J., & Slostad, F.A. (2000). Classroom teachers' perceptions about inclusion and preservice teacher education. Teacher Education II, 2, 147-158.

Kearney, A. (2008). Exclusion at school: What is happening for students who are disabled? The International Journal of Diversity in Organisations, Communities and Nations, 7(6), 219-227.

Keel, M., Dangel, H., & Owens, S. 1999. Selecting instructional interventions for students with mild disabilities in inclusive classrooms. Focus on Exceptional Children, 21, 1-16.

Kirk, R. E. (1999). Statistics: An introduction (4th ed.). Fort Worth: Harcourt Brace.

Leung, S. A., Chan, C. C., & Leahy, T. (2007). Counseling psychology in Hong Kong: A germinating discipline. Applied Psychology: An International Review, 56, 51-68.

Lupart, J. L., McKeough, A., & Yewchuk, C. (1996). Schools in transition: Rethinking regular and special education. Scarborough, ON: Nelson Canada.

Lupart, J. L. (1998). The delusion of inclusion: Implications for Canadian schools. Canadian Journal of Education, 23(3), 251-264.

Lupart, J. (2000). Inching toward inclusion: the excellence/equity dilemma in our schools. A Pan-Canadian education research adgenda, 1-27.

Lupart, J.L. (2001). Meeting the Educational Needs of Exceptional Learners in Alberta. Exceptional Education Canada, 11, 55-70.

Lupart, J. L., & Webber, C. (2002). Canadian schools in transition: Moving from dual education systems to inclusive schools. Exceptionality Education Canada, 12(2 & 3), 7-52.

Ma & Hanrahan, J. (2002). Teachers' attitudes toward integration in Hong Kong. Education Journal, 30, 1.

Parette, H. P., & Holder-Brown, L. (1994). The role of the school counselor in providing services to medically fragile children. Elementary School Guidance and Counseling, 27, 47-55.

Pavri, S., & Mondo-Amaya, L. (2001). Social support in inclusive schools: Student and teacher perspectives. Exceptional Children, 67, 391-411.

Praisner, C.L. (2003). Attitudes of elementary school principals toward the inclusion of students with disabilities. Council for Exceptional Children, 69(2), 135-145.

Rao, S. (2004). Faculty attitudes and students with disabilities in higher education:A literature review. College Student Journal, 38(2), 191-198.

Robertson, K., Chamberlain, B., & Kasari, C. (2003). General education teachers' relationships with included students with autism. Journal of Autism and Developmental Disorders, 33, 123-130.

Ryan, T., & Joong, P. (2005). Teachers' and students' perceptions of the nature and impact of large-scale reforms. Canadian Journal of Education Administration and Policy, 38, 11.

Sarason, S.B. (1995). Parental Involvement and the Political Principle: Why the Existing Governance Structure of Schools Should be Abolished, (1st ed.). San Francisco: Jossey-Bass Publishers.

Scruggs, T., & Mastropieri, M. (1996). Teacher perceptions of mainstreaming/inclusion, 1958-1995: A research synthesis. Exceptional Children, 63, 59-74.

Sindelar, P. (1995). Full inclusion of students with learning disabilities and its implication for teacher education. The Journal of Special Education, 29, 234-244.

Slee, R. (1996) Clauses of conditionality., in: L. Barton (Ed.) Disability and society: Emerging issues and insights. London, Longman).

Slee, R. (2005) Education and the politics of recognition: Inclusive education - an australian snapshot., in: D. Mitchell (Ed.) Contextualizing inclusive education. Abingdon, Routledge), 139 - 165.

Slee, R. (2008) Beyond special and regular schooling? An inclusive education reform agenda. International Studies in Sociology of Education, 18(2), 99 - 116.

Smith, M., & Smith, K. (2000). "I believe in inclusion, but...": Regular education early childhood teachers' perceptions of successful inclusion. Journal of Research in Childhood Education. 14, 161-180.

Stanovich, P.J., & Jordan, A. (1998). Canadian teachers' and principals' beliefs about inclusive education as predictors of effective teaching in heterogeneous classrooms. The elementary school Journal, 98, 221-238.

Statistics Canada, 2001 Census of Population Retrieved on 2007-03-13. Population and dwelling counts, for Canada, provinces and territories, and census subdivisions (municipalities), 2001 and 2006 censuses - 100% data".

Subban, P., & Sharma, U. 2006. Primary school teachers' perceptions of inclusive education in Victoria, Australia. International Journal of Special Education, 21(1), 42-52.

Tews, L., & Lupart, J. (2008). Student with disabilities' perspectives of the role and impact of paraprofessionals in inclusive education settings. Journal of Policy and Practice in Intellectual Disabilities, 5(1), 39 - 46.

Timmons, V. (2006). Impact of a multipronged approach to inclusion: having all partners on side. International Journal of Inclusive Education, 10,469-480.

Wilkins, T., & Nietfeld, J. 2004. The effect of a school-wide inclusion training programme upon teachers' attitudes about inclusion. Journal of Research in Special Educational Needs, 4, 115-121.

Williamson, P., McLesky, J., Rentz, T. 2006. Education students with mental retardation in general education classrooms. Exceptional Children, 72, 347-361.

Wilson, P. G., & Mazzocco, M. M. (1993). Awareness and knowledge of fragile X syndrome among special educators. Mental Retardation, 31, 221–227.

Winzer, M. (2002). Children with exceptionalities in the Canadian classroom. Toronto, ON: Pearson Educational Canada.

York, A., von Fraunhofer, N., Turk J., & Sedgwick, P. (1999). Fragile x-syndrome, Down's syndrome and autism: awareness and knowledge amongst special educators. Journal of Intellectual Disabilities Research, 43, 314-324.