University of Alberta

Investigating Principals' Beliefs and Intentions Toward the Inclusion of Students with Autism Spectrum Disorder

by

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Without any doubt, this work is dedicated to the students and families I've worked with and continue to work with; you truly inspire everything I do.

-S.H.

Abstract

The purpose of this study was to improve our understanding of what influences principals' intentions toward including children with autism spectrum disorders (ASD) in general educational settings. With the incidence of ASD on the rise (Centers for Disease Control and Prevention, 2012), neighbourhood schools are faced with the challenge of including these students on a more regular basis. Using Ajzen's (1991) Theory of Planned Behaviour (TpB) the relationships between principals' attitudes, subjective norms, perceived behavioural control and intentions towards inclusive education of children at three levels of ASD severity were examined through a web-based questionnaire completed by 67 principals. Findings revealed that principals were significantly more comfortable including students with ASD who are less severely affected by the condition. As predicted by Ajzen's TpB, perceived control and attitude had significant influence over principals' intentions towards including children with ASD. Discussion focuses on implications for practice and areas for future research.

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Chapter 1: Introduction

Including children with special needs in regular classrooms is becoming more prevalent as attitudes and legislation evolve to be more in tune with inclusive education practices. Locally, these changes are reflected in Alberta Education's (2011), *Action on Inclusion*, which proposes an inclusive education system with the goal of providing "all students with the most appropriate learning environments and opportunities for them to best achieve their potential" (para. 7). With the increased incidence of autism spectrum disorders (ASD), schools are challenged to include and develop educational programming for these students on a more regular basis (Fombonne, 2003). How school staffs, especially school administrators, respond to these challenges is of interest to researchers and practitioners (McLeskey & Waldron, 2011; Salisbury, 2006). Of particular interest are the attitudes and intentions of principals to include children with ASD as principals are charged with the front line responsibility of making inclusion happen at a local level.

With the trend for inclusive education, parents and advocate groups have continued to seek improved learning environments and opportunities for students with disabilities. One such group is the ASD advocacy community who, comprised predominantly of parents, has reported general discontent with the services offered by the education system and has demanded increased efforts to meet their children's educational needs in their neighborhood schools (Lynch & Irvine, 2009). The population of children identified with ASD continues to increase dramatically (Autism Society Canada, 2010; Centers for Disease Control

and Prevention, 2012; Fombonne, 2003; Wing & Potter, 2002) and, correspondingly, so does the inclusion of students with ASD in general education classrooms (Horrocks, White, & Roberts, 2008). Unfortunately in spite of this trend, there are few models and procedures available to facilitate successful inclusion of these students. Children and youth with ASD create significant challenges to the educational system because of the questions and debates regarding how best to provide these students with appropriate supports and effective education (Simpson, Mundschenk, & Helfin, 2011).

Principal leadership has been documented as an essential component for school change (Fullan, 2001) and successful inclusion (Hasazi, Johnson, Liggett, & Schattman, 1994; McLeskey & Waldron, 2011; Salisbury, 2006). Principals responsible for the programming of students living in their local neighbourhoods have a significant influence over placement decisions. In a recent study reviewing the role of principals in promoting successful inclusion practices, it was found that "the most significant factor in predicting both a positive attitude toward inclusion of children with disabilities and higher recommendations of placement for children [with exceptionalities] was the principal's belief that [all] children could be included in a regular education classroom" (Horrocks, White, & Roberts, 2008, p. 1462). Depending on principals' comfort levels and prior experiences either teaching or programming for students with ASD, parents and guardians may receive different advice regarding the educational placement and consequently the quality of education their child receives (Horrocks, White, & Roberts, 2008). As well, even if the child is placed within a regular education classroom, the level of

inclusion and experiences may be different from one setting to another (Park & Chitiyo, 2011).

As current legislation and attitudes are becoming more in tune with inclusive education, principals, who are responsible for the programming of students living in their local neighborhoods, have significant influence over placement and programming decisions for children with special needs in general education classrooms. Although it is a requirement, inclusive education is not always realized, as there seems to be a mismatch between what we want to do and what we actually do.

According to Ajzen's (1991) theory of planned behaviour (TpB), behavioural intention is determined by three factors; attitude towards a target behavior, subjective norm (expectations of peers), and perceived behavioural control (knowledge and skills to perform an act). Implementing effective inclusive practices involves several professionals, including teachers, support staff, and other professionals. By extension, the behaviours and interactions of these individuals are influenced, in part, by principals' attitudes towards inclusive education, their knowledge of the nature and requirements for inclusive education practices, and subjective norms. The TpB has been applied in a variety of educational settings (Kuyini & Desai, 2007, Jeong & Block, 2011, Stanovich & Jordan, 1998), giving credibility to the applicability of this theory in predicting relationships between the different variables when examining principal intentions and attitudes regarding including children with ASD in general education classrooms in their neighborhood school (Kuyini & Desai, 2007).

Present Study

The purpose of this study is to improve our understandings of what influences principals' beliefs and intentions toward including children with ASD in general educational settings. The relationships between some of the variables that influence principals' intentions and attitudes towards inclusive education, specifically regarding the inclusion of students with ASD, will be explored. It is hoped that through this examination, insights into influences of principals' behaviours will inform and guide improved practices for students with ASD.

Common Understandings

In order to examine the perspectives on inclusion of students with ASD it is essential to begin with shared definitions and understandings.

Autism spectrum disorders. Autism spectrum disorder (ASD) is a neurodevelopmental condition that is characterized by qualitative impairments in the areas of socialization, communication, and adaptive behaviour (Autism Society Canada, 2010). Children with ASD demonstrate deficits in social interactions, verbal and non-verbal communication, and behaviour activities and interests. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 2000) describes autism as a pervasive developmental disorder. The Autism Society of Canada (2010) defines the term ASD to typically refer to autistic disorder (also called autism), pervasive developmental disorder-not otherwise specified (PDD-NOS), or Asperger's disorder (also called Asperger's syndrome). The term ASD will be used throughout this paper to refer to students with the diagnosis of autistic disorder,

autism, PDD-NOS, or Asperger's disorder/syndrome.

"Spectrum" within the term ASD is in reference to a continuum of severity of developmental impairment (Autism Society Canada, 2010). While children and adults with ASD typically have particular communication and social characteristics in common, the conditions cover a wide spectrum, with individual differences in severity – mild to severe, characteristics, and levels of functioning (Autism Society Canada, 2010). ASD are the most common neurological disorder to affect children in Canada and are four times more common in boys than girls (Autism Society Canada, 2010).

The prevalence of ASD is on the rise from 4 to 5 cases per 10 000 to as much as 73 cases per 10 000 as indicated in a review of 32 epidemiological studies of pervasive developmental disorders (PDD) from 1966 to 2003 (Fombonne, 2003). The Centers for Disease Control (2012) recently announced that 1 in 88 children are now diagnosed with an ASD, and about sixty percent of these children test without intellectual impairment (below 70 IQ). Thus, it is anticipated that we will see many more children with ASD who are educated in general education classrooms alongside their neurotypical classmates. This concurs with an Autism Society Canada report in 2004 that there has been a steep incline in the number of school aged children with ASD in the three provinces that monitor prevalence rates: Saskatchewan, Quebec and British Columbia. While this apparent increase may be due to several factors, the fact remains that the increased prevalence of students diagnosed with ASD provides additional pressure to provide appropriate learning supports within the education system.

Coding of ASD in Alberta. Since the research sample for this study was collected within the province of Alberta, and it is anticipated that the findings will inform practices in this province, it is important to understand Alberta Education funding and programming legislation. Funding categories in Alberta (Alberta Education, 2011) include severe autism, or other pervasive developmental disorder, within the category of Severe Physical or Medical Disability (Code 44). Eligibility is determined by the functioning level of the student and a clinical diagnosis by a psychiatrist, registered psychologist, or medical professional specializing in the field of autism is required.

Inclusion. The inclusive education practices outlined in Alberta Education's Action on Inclusion initiative (Alberta Education, 2011), mean that teachers will face a broader range of student diversity. In the Alberta context, inclusion means every student, including those with ASD, will be included in the greater school community and will be placed in the setting that is best for them at a particular time. Physical placement will be flexible and changeable, always with the student's success in mind. Inclusion refers not merely to setting, but to specially designed instruction and support for students with special needs in regular classrooms in their neighbourhood school. In this model, instruction, rather than setting, is key to success.

Inclusion is the opportunity to be fully and meaningfully integrated into a typical learning environment. Inclusion also refers to an attitude of, acceptance of, and belonging, for all students such that they feel valued as part of the school community (Horrocks, White, & Roberts, 2008). Inclusion refers not merely to

setting, but also to specially designed instructions with appropriate in-class support for students with special needs who are enrolled in regular classrooms in their neighbourhood schools (Ainscow, Booth, & Dyson, 2006). For the purposes of this study, the definition offered by Alberta Education will be used to describe the construct of inclusion and will be the lens from which I will be examining. Alberta Education defines an inclusive education system as one where it is ensured that each student belongs and receives a quality education regardless of their ability, disability, language, cultural background, gender, or age. It is believed that this definition best encompasses the essential characteristics of inclusion as described in the literature and provides the best reflection of inclusion within the context of where my research study was completed.

While no definition for inclusion or inclusive education is explicitly provided to the participants of this study, the assumption was that the respondents would be familiar with the Alberta Education definition, the common context for principals in the province of Alberta. By leaving the definition somewhat ambiguous, participants' in this study are able to respond to questions from their personal perspectives of inclusion provided by the context of their individual schools; much the same way they would when approached by parents and caregivers looking for placement recommendations for their children with ASD.

Theory of planned behaviour. Ajzen's (1985) TpB states that human behaviours are governed not only by personal attitudes, but also by social pressures and a sense of behavioural control. Behavioural intentions partly, but not entirely, reflect individuals' personal attitudes. In addition, the degree to

which significant individuals believe one should or should not perform such behaviour, called subjective norms, also affects intentions. The perceived importance of others affects the extent to which their approval will shape intentions. Finally, according to TpB, the extent to which individuals feel they can engage in these behaviours, called perceived behavioural control also contributes to behavioural intention. Perceived behaviorual control depends on the degree to which individuals see themselves as sufficiently knowledgeable, skillful, and able to perform some act and on the extent to which individuals feel that other factors such as resources, time constraints, and the cooperation of colleagues could inhibit or facilitate the behaviour.

Chapter 2: Perspectives on Inclusion of Students with Autism Spectrum Disorder

An important first step toward creating successful inclusive education settings for students with ASD is examining perspectives of school leaders. Prior to undertaking this enquiry and describing a theoretical framework for such an examination it is necessary to briefly explore the research on related topics including perspectives on inclusion, the inclusion of students with ASD, and the role of principals in creating successful inclusive schools.

Inclusive Schooling

To explore the topic of the principals' beliefs and intentions towards the inclusion of students with ASD it is important to consider related areas of research including inclusive schools, the inclusion of students with ASD, and the role of principals in creating inclusive schools. What follows is a review of research that supports the need to understand attitudes and beliefs prior to addressing practices that enhance inclusion in school settings.

Attitudes and beliefs about inclusive schooling. The literature on inclusive education contains many examples of success stories from various schools and individuals who have worked with families, peers and students with exceptionalities (Horrocks, White, & Roberts, 2008; Killoran, 2002; Voltz, Brazil & Ford, 2001). It has been noted that successful inclusion is created when "diversity is valued, respected and encouraged" (Fisher, Sax, & Pumpian, 1996, p. 582). Acceptance of all students in the regular program is important in setting the stage for an inclusive learning environment. In addition, good teaching practices

with an "emphasis on collaboration among all players" (Killoran, 2002, p. 374) are essential for successful inclusion. For example, using a variety of assessment procedures, involving parents and families, and integrating support services, each contribute to supporting the inclusion of all students (Killoran, 2002). Voltz, Brazil, and Ford (2001) identified that the critical elements of inclusion also include the active meaningful participation and a sense of belonging and shared ownership among staff. One of the biggest challenges of inclusive education is ensuring that appropriate accommodations are provided to all learners to meet their diverse instructional needs. Structuring learning environments to promote the inclusion of diverse learners involves promoting respect for differences for all involved; students, teachers, and community members. By structuring learning environments to ensure that these critical elements are present, "educators can move forward in refining those factors that matter most in creating educational environments that embrace diverse learners" (Voltz, Brazil, & Ford, 2001, p. 29).

In a study by Burstein, Sears, Wilcoxen, Cabello, and Spagna (2004), the movement toward inclusive practices in two school districts was documented through interviews with general teachers, special education teachers, administrators, and parents. Overall the findings were consistent with other research (i.e. Farrell, Dyson, Polat, Hutcheson, & Gallannaugh, 2007; McLeskey, Hoppey, Williamson, & Rentz, 2004; McLeskey & Waldron, 2006) that indicates that the essential requisite for successful inclusive school are attitudes, accommodations, and adaptations for students with disabilities. The study also noted that staff development was critical to the change process and that it was

essential to have a common commitment shared by both teachers and administrators. In order to sustain and continue inclusive efforts, it was noted that in addition to the necessary resources, successful implementation requires shifts in attitudes from both teachers and administrators alike.

Further support that individuals' attitudes are important for inclusive education was provided by Norowich (2008), who conducted a study to examine the perspective of education practitioners and administrators in England, the USA, and the Netherlands on placement decisions for students with disabilities. The aim of this research was to examine the beliefs and judgments of educational professionals and administrators about a placement dilemma relating to students with severe disabilities across three countries. It was found that there is a continued recognition of the dilemma about the consequences of having inclusive and separate placements for children with more severe disabilities and special educational needs. Furthermore, the findings identified that tensions related to placement decisions came from poor teacher attitudes towards inclusion and the administrators' perspective of the difficulty to support the students' needs in a neighbourhood school.

Curcic (2009) investigated qualitative and quantitative research on inclusive education from 18 countries around the world. Of particular significance to the present study, was the finding that different teacher beliefs result in different practices. Teachers reported both positive and negative views towards inclusion. Positive aspects included increased social interaction among students, while negative aspects included inadequate materials, lack of support or

knowledge about students with disabilities, and concerns that one-to-one support for students with disabilities may lead to neglect of other students. A number of factors that influence and even prevent successful education include teachers' beliefs, experiences, and support working with students in inclusive settings. Thus, although polices, knowledge, and understanding about inclusion and inclusive practices continue to advance, the reality of inclusion remains just an aspiration for too many children.

The situation is no different in Canada. When considering teachers' perspectives on inclusion, Horne and Timmons (2009) conducted a survey exploring the attitudes, beliefs, and concerns of teachers regarding inclusion at the elementary level in Prince Edward Island. The general attitudes, beliefs, opinions, and concerns of the teachers interviewed revealed a positive outlook towards inclusion and highlighted a need for ongoing teacher training, comprehensive support, and more time to implement inclusive practices. More importantly through the interviews conducted during the study Horne and Timmons (2009) found that all teachers agreed that the leadership of the principal was necessary for inclusion of students with special needs to work well; highlighting the importance of school leaders in successful inclusive education movements.

In a study by Valeo (2008) both principals and teachers were interviewed to determine their individual views on the support systems in place for inclusive education. Previous studies (McLeskey & Waldron, 2006; Olson & Chalmers, 1997; Salisbury, 2006; Stanovich & Jordan, 1998) have shown teacher attitudes to be an important factor in the success of inclusive practices in special education.

Findings from Valeo (2008) confirmed assumptions that teachers feel that inclusive practices are not supported by their administrators; while principals felt that there were several systems in place to be supportive teachers believed that this was not the case. Teachers in this study felt that they lacked the time to adequately meet the needs of students with exceptionalities, and many presume that in order to give to those students the extra time would mean a decrease in supports for regular class students.

Salend and Garrick Duhaney's (1999) review of the literature of inclusive practices revealed several important patterns that are relevant to the present study. With respect to inclusion programs, the placement of students without disabilities in inclusion programs does not appear to interfere with their academic performance and has several social benefits. It was also noted that teachers' responses to inclusion programs are complex and are shaped by multiple variables that change over time. The findings of this review reveal that general education teachers believe resource rooms provide effective programs for students with special needs. Teachers' personal efficacy correlated with less anxiety about inclusion, and collaboration among teachers was also found to lesson anxiety about inclusion. Salend and Garrick Duhaney reported that research has identified several positive and negative outcomes of inclusion for teachers. Positive findings include teachers with increased skills and confidence in their teaching ability, especially in regard to meeting the needs of all students. Concerns towards the inclusion of students with special needs included fear that non-disabled students may suffer, their inability to address the severe needs and behavioural challenges

of special needs students, limited amount of time for preparation and collaboration, and lack of funding to provide appropriate support staff. It is important to note that anxiety towards inclusion was reported higher for the inclusion of students with ASD then for other disability groups.

It has been noted that an essential element of inclusive education is to embrace the needs of diverse learners (Voltz, Brazil, & Ford, 2001); one group of students with the most diverse needs are those with the broad condition of ASD. As students with ASD vary significantly in character and severity; the inclusion of these students poses increased challenges for schools.

Inclusion of students with ASD. Schools essentially have two placement options for student with ASD; in segregated programs or in inclusive settings within the general education classrooms in a school. Typically students with ASD receive various types of support in both of these settings, including assistance from one-on-one paraprofessionals.

Before we examine the views of principals and teachers on the inclusion of students with ASD it is important to explore parental perspectives. Kasari, Freeman, Baumaiger, and Alkin (1999) examined the effects of the child's diagnosis, age, and current educational placement on parental perceptions towards inclusion of their child. Their study found that as children with ASD grew older parents became less and less satisfied with the educational services their children were receiving in the inclusive classroom. While it was noted that inclusion was ideal as long as specialized services were available, over half of the parents of children with ASD were concerned that their children's current educational needs

could not be adequately met in an inclusive program. Additionally, children with ASD, by definition, have difficulty with peer relationships and understanding social situations that create additional concerns in an inclusive learning environment. Parents of children with ASD identified specialized training or even a specialized teaching support as being important elements of a successful inclusive education program. Last, it was found that "all three factors – diagnosis, age, and current program- affected parental perceptions" (Kasari, et al., 1999, p. 304) towards educational opportunities for their children.

Lynch and Irvine (2009) reviewed the commonalities between essential elements for inclusive education and best practices for ASD: instructional practices; student and staff supports; and family involvement. It has been reported that while early intervention programs that focus on teaching skills, language, social abilities, behavioural regulations, self-help, and academics have shown to greatly improve outcomes for many children with ASD, there is no cure for this life long disability. Inclusive education programs provide students with ASD with increased peer acceptance and positive social interactions leading to increased opportunities to learn social skills; an essential area of growth for most children with ASD. "Although many general education classrooms boast about inclusive practices for children with special needs, the fact remains that the current organizational structure in some school systems is not conducive to an authentic demonstration of inclusion" (Lynch and Irvine, 2009, p. 856). There appears to be some misunderstanding of what constitutes truly inclusive practices; while some schools may perceive the educational practices in their school to be inclusive

others may disagree. In many schools the inclusive classroom focuses on fitting the child into the environment rather than ensuring modifications are available for those whose needs differ within the classroom. It was noted in this review that there seem to be more positive inclusive experiences reported among other disability groups than those reported for ASD groups. Lynch and Irvine (2009) stress that it is apparent that in the case of ASD, children's needs are not being fully met in their school setting and it is the challenge of educators to provide appropriate supports to these students in inclusive settings.

Effective educational practices for students with ASD are essential to explore as students with ASD present unique challenges to educators trying to plan effective instructional programs. Through a synthesis of comprehensive reviews for the purpose of identifying effective practices for individuals with ASD, Iovannone, Dunlap, Huber, and Kincaid (2003) provide a "description of 6 core elements that have empirical support and could be included in any sound, comprehensive instructional program for students with ASD" (p. 150). These core elements include: (a) individualized supports and services for students and families, (b) systematic instruction, (c) comprehensive/structured learning environments, (d) specialized curriculum content, (e) functional approach to problem behaviour, and (f) family involvement. It was noted that children with ASD present special challenges in the educational system and these core components highlight the responsibilities placed on schools and give school principals guidelines for providing appropriate educational programs for these children with exceptionalities.

Horrocks, White, and Roberts (2008) gathered information about principals' attitudes regarding inclusion of children with ASD. It was predicted that variables such as the number of years in an administrative role, formal training, and experiences with students with ASD would correlate with principals' attitudes toward the inclusion of children with disabilities and placement recommendations of students with ASD. The findings of this study revealed that one factor superseded all others, and that factor was the principal's belief that all children with ASD could be included in regular education classes. Most of the principals surveyed had positive attitudes towards the inclusion of children with disabilities; however of those surveyed, the principals' who had a positive attitude toward the inclusion of children with other disabilities were also more likely to have a positive attitude towards students with ASD. Professional experiences with children diagnosed with ASD and positive experiences with inclusion were correlated with positive attitudes towards their inclusion. Part of this study required principals to make placement decisions based on descriptions of five student profiles. It was revealed that principals were less likely to recommend high levels of inclusion for children with ASD when socialization and academic performance were critical considerations in the student's profile. It was noted that principals must have an understanding of ASD and be prepared to respond and program for children with this diagnosis.

In a study designed to examine teachers' attitudes toward children with ASD, Park and Chitiyo (2011) surveyed teachers from a small town in the Midwest United States. It was found that the younger the teacher the more

positive their attitudes tended to be and, it was noted that, attitude was negatively correlated with school level showing that elementary school teachers tended to be more positive toward students with ASD than middle and high school teachers. Female teachers had more favourable attitudes towards children with autism than their male counterparts. This study indicated that teachers' positive attitudes toward children with ASD was influenced by teacher's age and gender, the age of the student, school levels and professional development experiences. It was also noted that there may be other factors that contribute to favourable attitudes including child related variables, severity of the disability condition, teachers' personal involvement with people with autism, or their empathic tendency.

More evidence indicating that attitudes are important for inclusion can be seen in a study conducted in Scotland. When seeking the views of specialist and mainstream teachers about the advantages and disadvantages of the inclusion of students with ASD, McGregor and Campbell (2001) found that many of the respondents to their questionnaire expressed concerns about effects on mainstream pupils but were willing to participate in more training. As expected, specialist teachers reported more positive views toward the inclusion of students with ASD, but acknowledged the possible disadvantages for both groups of children stressing that the success of inclusion depends on the individual children. "Although research has shown that some children with ASD may benefit socially and academically from full integration, this is dependent on strong and knowledgeable support and, even then, research does not consider is suitable for all children with ASD (McGregor & Campbell, 2001, p. 201). The findings of this

study stressed the importance of careful preparation, expert guidance, and sufficient support for all staff. It was noted that although support is good for special education in Scotland, the level of training is low and one could expect similar circumstances in other school jurisdictions. McGregor and Campbell stress that careful preparation, expert guidance, and sufficient support is required for all staff.

In a recent investigation on the successes and difficulties of including children with ASD in schools, Elder, Talmor and Wold-Zukeman (2010) used qualitative tools to describe the impressions of inclusion coordinators. The inclusion coordinators perceived the factors related to the success and difficulties of inclusion were especially related to the environment. For example, they noted that the more experience and education the coordinator had influenced the success of including children with ASD. It was reported that the severity of the students' symptoms of the included students was related to the difficulties' of including children with ASD. Some research (Dybvik, 2004; Hunt & Goetz, 1994; Ivoannone et al., 2003) mentions the importance of special preparation for all involved including behavioural, learning, social and emotional aspects. It was found that choosing the right school and principal for inclusion is important for all aspects of successful inclusion.

Variability of ASD. As noted by the National Research Council (2001, p. 11) "there is no single behaviour that is always typical of autism and no behaviour that would automatically exclude an individual from a diagnosis of autism". Children with ASD demonstrate significant deficits in basic areas of functioning

including impaired social relationships, communication and language deficits, variability of intellectual functioning, unusual responsiveness to sensory stimuli, ritualistic and unusual behaviour patterns and problem behaviours. Some children on the spectrum are very affected in most or all domains of functioning, while others are only mildly affected. This means that children diagnosed with ASD may share many characteristics or may be affected in drastically different ways. ASD is not a single condition; rather it is a spectrum disorder resulting in individuals presenting a wide range of abilities and disabilities (Iovannone, Dunlap, Huber, & Kincaid, 2003).

Clearly children with ASD vary in their requirements for additional supports within inclusive education classrooms. As school principals are largely responsible for the placement and programming opportunities for students with ASD in their neighbourhood schools it is important to consider their roles and perspectives on inclusive education and whether the variability in ASD influences their attitudes and intentions in order to gain an understanding of how to make advancements.

Principal's beliefs and attitudes about inclusive education. "Despite the importance of teachers' attitudes towards children with special needs, there has been a lack of empirical research on principals' attitudes towards autism" (Park & Chitiyo, 2011). A recent case study (McLeskey & Waldron, 2011) identified the central role of the principal to be the most important single factor contributing to a highly effective inclusive school. Three important themes regarding principals' beliefs and attitudes towards including children with disabilities in general

education will be explored in this study; meeting the needs of all students, providing high quality instruction for all students and immersing teachers in professional development opportunities.

Principals are responsible for or have a significant influence over placement decisions for students living in their local neighbourhoods. In a recent study reviewing the role of principals to promote successful inclusion practices it was found that "the most significant factor in predicting both a positive attitude toward inclusion of children with disabilities and higher recommendations of placement for children [with exceptionalities] was the principal's belief that [all] children could be included in a regular education classroom" (Horrocks, White, & Roberts, 2008, p. 1462). Depending on principals' comfort level and prior experiences either teaching or programming for students with various exceptionalities, parents and guardians may receive different advice regarding the educational placement of their child.

Salisbury (2006) studied the perspectives and experiences of eight principals who were already involved in inclusive elementary schools as "we remain concerned about the relative lack of information among principals about inclusive education and its relationship to school improvement and reform" (p. 80). Salisbury sought to develop a deeper understanding of how principals viewed inclusive education, their perspectives on implementation, and the challenges they encountered. As principals are instrumental in establishing a school climate and providing support for staff, they "need specific knowledge about inclusive education, training on how to guide the building wide changes, and strategies for

addressing the many challenges they will encounter in implementing inclusive educational reform" (Salisbury, 2006, p. 81). While Salisbury's study focused solely on principals currently engaged in developing and maintaining inclusive schools, little is known about the perspectives of those principals who have yet to embrace inclusive schools. Though it is essential to identify the characteristics of those principals already adopting a philosophy of inclusion, it is also beneficial to examine the deficits or misconceptions of the resistant professionals to ensure these needs are reflected in any future training or professional development initiatives.

Salisbury and McGregor (2002) noted that despite the key role of principals in school improvement initiatives, few empirical studies have been reported about the administrative climate and context of inclusive schools. To further investigate this construct these researchers interviewed, surveyed, and observed principals from five elementary schools actively engaged in inclusive approaches. Their results suggested that "effective principals are those that promote change through practices that are collaborative, intentional, and supportive" (p. 269). Salsibury and McGregor reported that changing attitudes, beliefs and practices require attention to factors that influence the culture of the school and imply deeper levels of change; "resulting cultures in these schools were ones that valued diversity, inquiry, collaboration, and the meaningful inclusion of students, teaching staff, and parents" (p. 264).

"Research has identified the school principal as a key participant in directing school change and creating schools that support teachers to meet the

needs of all students" (Hoppey & McLeskey, 2011). In their case study of principal leadership in an effective inclusive school, Hoppey and McLeskey (2011) investigated how principals provide support for school improvement. Their qualitative study found that through building relationships and providing a setting that is supportive of teachers and that helps them to do their best possible work is essential for establishing effective inclusive settings. Three characteristics of a principals' leadership style were identified to facilitate the development of supportive and caring school communities: caring for and personally investing in teachers, buffering teachers and staff from external pressures and promoting teacher growth. Hoppey and McLeskey's investigation provides insight into how one principal can use his or her role to make personal connections, establish strong school cultures, and create a shared commitment to improving educational outcomes for all students. The findings suggest the need for a high level of preparation of principals to ensure they have extensive knowledge of school change of school based professional development. As with most case study research, this study provides some insights that are contextually bound and particular to one school at a particular point of time but provides direction for quantitative research in the area of school leadership and inclusive education.

Waldron and McLeskey (2010) identify key aspects of this reform and discuss the implications of the findings for research and practice. It was noted that the development of a collaborative culture, the use of high quality professional development to improve teacher practices, and strong leadership for school improvement activities by the principal, and other school leaders are required. Of

particular significance to the present study is the critical role the school principal plays in ensuring that leadership is distributed across school personnel in supporting the development and maintenance of a collaborative school culture that builds the capacity to address student needs. They stress the importance of high-quality professional development that ensures that teachers and other school professional have the necessary skills to implement and sustain new practices needed to support inclusive programs.

McLeskey and Waldron (2011) reviewed research related to the delivery of high-quality instruction to students with learning disabilities (LD) in inclusive, general education classrooms, and in resource settings. While the needs of students with LD and ASD are drastically different one can glean from these findings the components of high-quality, intensive instruction for students with all special needs. The idea that traditional special education programming does not fit into the ebb and flow of the general education classroom would be applicable to the successful inclusion of students with ASD in their neighbourhood schools. It was noted that it in terms of inclusion, the setting is not the primary issue of importance; it is what happens in the setting that makes all the difference. McLeskey and Waldron's review indicates that research reveals that full inclusion is insufficient to meet the needs of most students with LD, this observation is likely similar for more severe exceptionalities such as ASD.

Case study research (e.g.; Waldron & McLeskey, 2010) has outlined a number of themes related to the qualities of effective, inclusive schools. These include student support and instructional quality, meeting the needs of all

students, providing high quality instruction for all students, immersing teachers in professional development opportunities and administrative and organization features, using data to drives decisions, very efficient but flexible use of resources, shared decision making, and strong support and leadership from the principal. It has been noted that although these themes continue to evolve, the central role of the school principal continues to be the most important single factor contributing to a highly effective inclusive school (J. McLeskey, personal communication, March 7, 2011).

McLeskey and Waldron (2002) identify important lessons learned as they worked with professionals and other stakeholders in schools that developed successful inclusive programs. It was noted that for the development of a successful inclusive program the role of administrators is of upmost importance as these individuals must set an atmosphere in a school that is conducive to change and provide teachers with a range of necessary supports. School culture is often developed and maintained by the school principal and reform effects should be aimed at cultivating these deeper issues related to the systematic change required for inclusive education. It was mentioned that change must be tailored to each school and there is no universal model yet proven to be effective. This reinforces the important role that school principals play in creating a culture that supports and sustains the inclusion of students with special needs, including those with ASD. Principals are in the best position to recognize the complexity of their schools and are in the position to align resources to support change. Finally, it was revealed that the work on developing an inclusive school is never done; the

complex implementation process requires ongoing strategic planning and awareness to respond to the needs of students, staff and the community at it evolves.

In a survey of elementary school principals investigating relationships regarding attitudes towards inclusion, Praisner (2003) found that positive experiences with students with disabilities and exposure to special education concepts were associated with a more positive attitude towards inclusion. Praisner stressed the importance of ensuring positive experiences for principals by establishing inclusion settings in resistant environments. He noted that the number of in-service training hours in inclusive programs and the number of special education credits in formal training that the principal had completed where significantly related to the attitude score. To improve our understanding of principals' attitudes toward inclusion, the factors related to attitudes, and their potential impact upon the placement of students with disabilities, Priaisner (2003) identified a lack of specific training in special education topics for principals. Teacher training and professional development (PD) typically begins for individuals when they enter a teacher education program, although many pre-service teachers bring with them a wealth of knowledge, experience, attitudes, and beliefs that all contribute to their teaching philosophies which influence their practice (Jordan, Schartz, & McGhie-Richmond, 2009). These initial teacher education programs tend to focus on foundational knowledge and skills as well as content area and teaching methodological content, in addition to teaching practicum experiences. It is from this curriculum that many teachers are exposed

to the needs of students with various exceptionalities and possible interventions used to address their individual needs for the first and sometimes only time. When creating or reflecting on various training and PD models, it is important to remember that "beliefs and practices are linked, and emphasis in teacher professional development on either one without considering the other is likely to fail" (Stipek et al., 2001 as cited in Jordan, Schartz & McGhie-Richmond, 2009, p. 541). This is important not only for teachers, but for any professionals who have an impact on a child's education, most notable school principals and decision makers. As "a whole-school culture of commitment and support, including training for inclusion, was highlighted repeatedly as being essential, if truly inclusive environments were to become a reality" (Moran, 2007, p. 130) the role of principals is critical in creating this culture and as such efforts should be in place to develop PD opportunities to meet the needs of their staff. In order to fully understand the complexities of training and PD programming one must consider the specific needs of all stakeholders.

Theory of Planned Behaviour as a Theoretical Framework for Understanding Behaviour

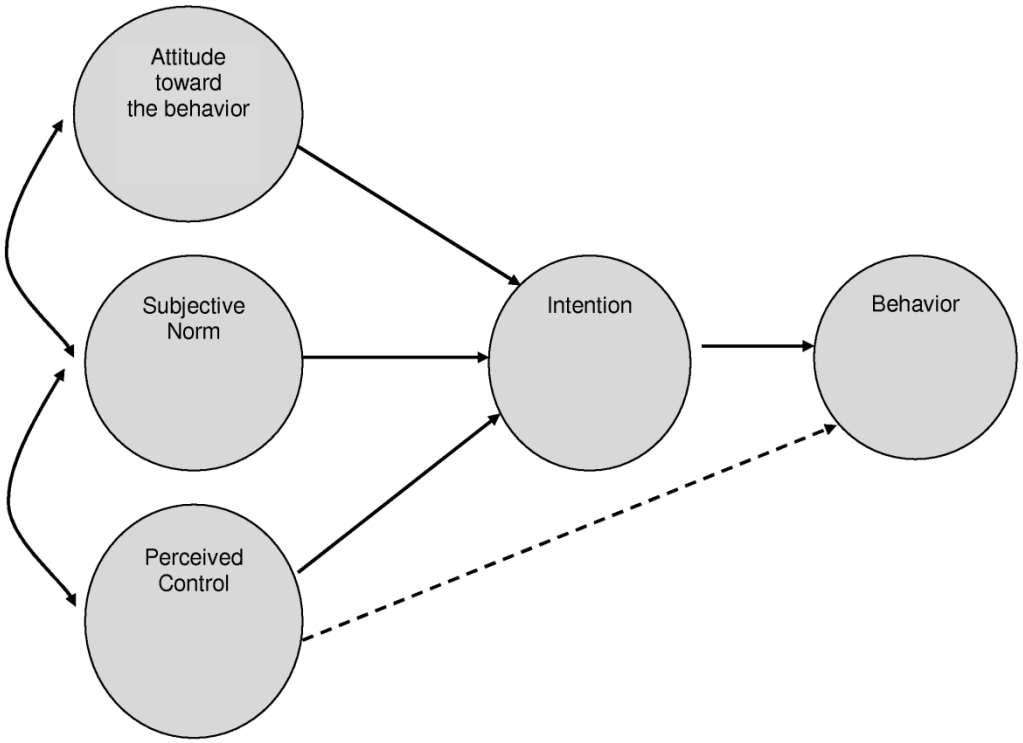
A theoretical framework contributes to a study by providing researchers with a way to organize and give meaning to facts and helps guide further research (Miller, 2002). A relevant theoretical base for the present research study falls within a framework provided by Ajzen's (1985) theory of planned behaviour (TpB). The TpB (Ajzen, 1985), which is an extension of the Theory of Reason Action (Fishbein & Ajzen, 1975) and theorizes that behavioural intention is

determined by three factors –attitude towards a target behaviour; subjective norm (expectations of peers), and perceived behavioural control (in this case knowledge); as seen in Figure 1. The TpB is concerned with actions that are voluntary and is used to provide an understanding of why there is sometimes a mismatch between what we want to do and what we actually do (Ajzen, 1991). "According to the theory of planned behaviour, perceived behavioural control, together with behavioural intention, can be used directly to predict behavioural achievement" (Ajzen, 1991, p. 184). This hypothesis is supported by two rationales. First, if we hold intention constant, the effort spent to bring a course of behaviour to a successful conclusion is likely to increase with perceived behavioural control. The second reason for expecting a direct relationship between perceived behavioural control and behaviour achievement is that perceived behavioural control can often be used to substitute for a measure of actual control (Ajzen, 1999). The TpB provides a useful conceptual framework for dealing with the complexities of human social behaviour and is used to both explain and predict these behaviours.

Attitude. The first component of the TpB explores is attitude. Attitude towards the behaviour is defined as the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question; an individuals positive or negative feelings about performing a behaviour. In the TpB attitude is determined through an assessment of one's beliefs regarding the consequences arising from a specific behaviour. In the present study, attitude refers to the respondents' attitudes and beliefs about teaching students with ASD

Figure 1

The relationship between the TpB determinants



Note: Adapted from Ajzen 2002.

in heterogeneous classrooms. For the purposes of this study, the items related with the attitude construct are primarily concerned with the responding principals' opinion towards the inclusion of three different students, all with ASD with various degrees of disability.

Subjective norm. Subjective norm is defined as an individual's perception of whether people important to the individual think the behaviour should be performed; the perceived social
pressure to perform or not to perform behaviour. In the present study subjective norms refers to those stakeholders important to principals, including their superintendent, their peers, and the parent community.

Perceived behavioural control. Perceived behavioural control is defined as people's perception of the ease or difficulty in performing the behaviour of interest. The importance of actual control is obvious; the resources and opportunities available to a person must contribute to the likelihood of behaviour achievement; however it is of greater psychological interest to consider the perception of behavioural control and its impact on intentions and actions. The TpB views control that people have over their behaviour on a continuum from behaviours that are easily performed to those requiring considerable effort or resources. In the present study perceived behavioural control is investigated through items related to the principals' attitudes and their beliefs regarding their ability to successfully include students with ASD in regular education classrooms in their school.

Literature Review of TpB

The TpB has been widely used in fields of education and physical education (Barnett & Mondo-Amaya, 1998; Kuyini & Desai, 2007; Tripp & Rizzo, 2006). Many of these studies employed Rizzo's current Physical Educators' Intention toward Teaching Individuals with Disabilities (PEITID-III; Tripp & Rizzo, 2006) to assess various constructs related to the inclusion of student with disabilities in physical education classes and to identify the attitudes of physical educators associated with favourable intentions toward the inclusion of a student with a disability.

In their study of Canadian teachers and principal's beliefs about inclusive education of effective teaching, Stanovich and Jordan (1998) used Ajzan's model of the TpB. Using the constructs teachers' beliefs and attitudes, principals' beliefs and school norms, and teacher efficacy to represent the determinants of behavioural intention, Stanovich and Jordan attempted to predict the teacher behaviours associated with effective teaching in heterogeneous, inclusive classrooms. Teachers and principals were provided questionnaires developed within the framework provided by Ajzen's TpB (1985; 1991). They found that there was a direct connection between both the principal's beliefs regarding inclusive education and the norms for his or her school and effective teaching behaviours; reinforcing the principals' role in developing school culture that may affect the instruction provided by teachers in inclusive classrooms.

Kuyini and Desai (2007) also used the TpB as a framework of the survey used in their study to determine whether principals' and teachers' attitudes toward

and knowledge of inclusive education, and principals' expectations, were predictors of effective teaching practices within inclusive classrooms. The findings of this study were consistent with the literature, which suggests that successful inclusion hinges on developing and sustaining positive attitudes, increasing educator knowledge of inclusion through professional development, and providing clear expectations of inclusion for educators. They found that in the context of the TpB attitudes towards inclusion (the attitudinal element) and knowledge of inclusive education (the perceived behavioural control element) were predictive of effective teaching in inclusive classrooms where principals' expectations (the subjective norm element) was not a significant influence on effective teaching; showing that expectations from school principals are not sufficient for successful inclusive educational practices.

"Implementing effective inclusive practices involves a set of behaviours/activities and interactions on the part of several professionals including principals…in order to provide school and classroom modifications for students with special needs" (Kuyini & Desai, 2007). These behaviours/interactions are influenced by principals' attitudes towards inclusive education and their knowledge of the nature and requirements for inclusive practices. School principals in the province of Alberta are aware of their expectations to facilitate inclusive education for students with ASD through legislation; however this is not always realized and it is of interest to explore possible reasons for this disconnect between theory and practice. The variables chosen for the present study were within the framework provided by Ajzen's

TpB; theoretically derived variables that the literature indicates are linked to individuals' behavioural intentions.

For the purposes of this study, the TpB provides an appropriate theoretical framework for examining and understanding what influences school principals' beliefs and intentions towards their inclusion of students with ASD. As little is known about what influences principals' decision making in terms of inclusive education for students with ASD (Horrocks, White, & Roberts, 2008) it would be of interest to investigate this topic with the constructs within the TpB, first to determine if such a relationship exists within this context and then to explore what background characteristics might amplify or attenuate these factors, leading to more positive intentions towards the inclusion of students with ASD. Perhaps different social groups may have more of an influence on principals' intentions and trump the weight of their attitudes and perceived control? It is possible that principal's perceived ability to control or manage situations may have greater effect in swaying their intentions towards the inclusion of students with ASD. Finally, if these relationships exist, they may be mediated by a variety of background characteristics, such as education and experiences, which would be of interest to examine. By exploring the relationships between the theoretical constructs within the TpB framework there is potential to gain insight into what influences principal's intentions and why despite an inclusive education mandate, inclusion is not always realized for all students with ASD.

The Present Study

As the population of children identified as having ASD continues to increase dramatically, so too does the inclusion of students with ASD in general education classroom and the corresponding decision making responsibilities of school principals. With this in mind, there is an interest in improving our understanding of how principals' personal and professional experiences are related to their attitudes and intentions towards inclusion of students with ASD in general education classrooms within their neighbourhood schools. The topic of principals attitudes and intentions towards the inclusion of students with ASD in neighbourhood schools has had limited attention in the literature. Of interest in the present study, is whether the characteristics of the children with ASD, specifically the level of severity of the disorder, are associated with attitudes and intentions that principals may express. Additionally, do these characteristics influence the theoretical constructs attitudes, social norms, and perceived behavioural control as described in the TpB. leading to principals' intentions?

Application of the TpB suggests that the more favourable a principals' attitude, subjective norm, and perceived behavioural control towards their inclusion of students with ASD the more favourable intentions principals will have towards the inclusion of these students. This theoretical framework has the potential to provide meaningful information about factors that influence principals' intentions and attitudes towards inclusive education, specifically regarding the inclusion of students with ASD in general education classroom within their neighbourhood schools. The results of this study have the potential to

guide professional learning opportunities for future leaders engaged in inclusive practices. Understanding attitudes, response to subjective norms, and perceived behavioural control may impact the development of more accurate professional learning opportunities to support inclusive practices in educational settings.

Summary of Study Hypotheses

The purpose of this study is to examine the following research questions:

1. Do principal's intentions to include, attitudes regarding inclusion, perception of social normative pressures about inclusion, and perceived control about inclusion *vary* when presented with children with ASD who appear to be mildly, moderately, or severely affected by the disorder?

It is hypothesized that principal's intentions to include, attitudes regarding inclusion, perception of social normative pressures about inclusion, and perceived control about inclusion will differ depending on the level of severity of the child with ASD. It is anticipated that less positive attitudes about inclusion will be associated with students who appear to be more severely affected by ASD and more positive attitudes towards inclusion will be associated with students who display more mildly affected by ASD. It is predicted that social normative pressure will have a greater influence on principals intentions to include students severely affected by ASD and greater perceived control will result in principals more inclined to include students who are severely affected by ASD than students who are mildly affected by the disorder.

2. Are principal's characteristics (i.e. gender, age, educational background and experiences with ASD) associated with their attitudes regarding inclusion and

perceived control about inclusion for children with ASD who appear to be mildly, moderately, or severely affected by the disorder?

School principals' may have very different personal and professional backgrounds and consequently it is predicated that this variability will influence principals' attitudes regarding inclusion and perceived control about inclusion for children with ASD. It is hypothesized that principals' attitudes and intentions towards the inclusion of children with ASD, regardless of their severity, will be more favourable when they report more course work and positive experiences working with students with special needs and those with ASD. It is predicted that while these characteristics will positively influence principal's attitudes and intentions towards the inclusion of all children with ASD they will have a greater influence on their attitudes and intentions to include students more moderately and severely affected by the disorder.

3. Is intention to include *associated* with the attitude about, perceived control, or subjective norms for children with ASD who appear to be mildly, moderately, or severely affected by the disorder?

It is hypothesized that principal's attitudes, the subjective norms imposed by others and perceived behavioural control will be positively correlated with principals' intention to include children with ASD who appear to be mildly, moderately, or severely affected by the disorder. It is predicted that principals who have a more positive attitude towards inclusive education and children with special needs will be more likely to recommend inclusive education placement for students with ASD regardless of their severity. The subjective norms imposed by

others will influence principals' decisions. Finally, it is expected that principals who feel they have control over their ability to include students with ASD will be more likely to recommend inclusive placements for students with ASD, especially those who are moderate and severely affected by the disorder.

4. Is intention to include *predicted* by attitudes, subjective norms, or perceived control for children with ASD who are a) mildly affected; b) moderately affected; or c) severely affected?

As described in the TpB (Ajzen, 1991), it is hypothesized that the three determinants – attitudes, social norms, and perceived behavioural control–will predict behavioural intention to include children with ASD who appear to be mildly, moderately, or severely affected by the disorder.

Chapter 3: Design and Methodology

The first purpose of this study was to examine factors that influence principals' intentions and attitudes towards inclusive education; specifically regarding the inclusion of students with ASD with the understanding that school principal's actions are a critical factor when working towards effective inclusive education practices. This study incorporates Ajzen's (1991) TpB as a way for understanding principals' self evaluation of their attitudes, social norms, perceived behaviour control, and/or intention about the inclusion of students diagnosed with varying degrees of ASD. A second purpose was to identify the attributes (i.e. gender, age, education background, experience working with students with disabilities and/or ASD, and grade levels at their current school) of school principals associated with favourable intentions toward the inclusion of different students with ASD.

Participants

The target population of this study was school principals. Participants were recruited from three school districts in the greater Edmonton region. Due to restrictions imposed by the different boards, recruitment of participants occurred in three different ways. Principals from Edmonton Public School Board were notified about the study through a posting on an internal message board "Need to Know News". In this posting, principals were invited to participate in the study and the investigator's email address was provided. Edmonton Catholic School Board and Elk Island Public School Board allowed for a personal introductory and follow up reminder email to all principals, which outlined the purpose and

procedures of the study. All participants were provided with access to the same online questionnaire that contained an introduction explaining the purpose of the study.

Characteristics. The final sample consisted of 67 school principals working in schools from Edmonton and surrounding Area. Forty-eight principals were recruited form EPSB, 7 from Edmonton Catholic, and 12 from Elk Island Public schools. They represented schools from a range of specialized programs and grade levels. Principals reported varying levels experience and competency working with students with ASD.

Procedure

This study utilized a questionnaire that principals completed to examine associations between principal characteristics and intentions and attitudes about inclusion.

Data Collection. These data were collected online via a survey completed by principals between December 2011 and February 2012. Questionnaire responses were managed using Research Electronic Data Capture (REDCap; Harris et al., 2009) electronic data capture hosted at the University of Alberta. REDCap is a secure, web-based application designed to provide (a) an intuitive interface for validated data entry; (b) audit trails for tracking data manipulation and export procedures; (c) automated export procedures for seamless data downloads to common statistical packages; and (d) procedures for importing data from external sources.

Measures

Questionnaire development. The online survey entitled Principals Intention toward Teaching Individuals with ASD (Appendix A) was constructed for use in this study. This survey was created using Rizzo's (2006) Physical Educators' Intention toward Teaching Individuals with Disabilities (PEITID-III) as a reference. The PEITID-III has been used to survey principal's beliefs, attitudes, and intentions about teaching students with disabilities (California State University, 2009). While the popularity of this instrument has not been officially investigated, its developers have reflected that it may be due to the theoretical framework from which the survey was developed rather than the instrument itself (T. Rizzo, personal communication, February 13, 2011).

As with the PEITID-III, the questionnaire used in this study was developed using the theoretical constructs described in the TpB (Ajzen, 2002) and contains the essential elements for assessing beliefs, attitudes, intentions, perceived control, and subjective norms. The survey instrument was divided into three sections; 1) demographic information and professional experience; 2) student profiles; and 3) attitudes, subjective norms and behaviour beliefs.

Demographic information and professional experience. In the first section, questions were devised to gather information on the participants' general background information (i.e. gender, age), experiences (i.e., with children with developmental disabilities and students with ASD) and educational levels (i.e., degree received, courses taken in relation to special education).

Background information. Participants were asked to provide information about their gender, age range, and years as a principal. Principals were also asked to identify which school board they worked for, grade levels in the principals' current school and whether their current school had any specialized programs.

Experiences. In this part of the questionnaire, principals were asked both if they had experience teaching individuals with disability or with ASD and how many years experience with both groups. Principals were asked to rate the quality of their typical experiences with both groups using a 4-point rating scale with the qualifiers no experiences (1), not good (2), satisfactory (3), and very good (4). Finally, principals were asked to rate the competency they feel teaching both a student with disabilities and with ASD using a 5-point rating scale ranging from not at all (1) to extremely competent (5).

Student profiles. The second section was designed to explore the different ways principals form impressions of students based on selected information and/or disability labels. Principals were presented with three separate vignettes of students diagnosed with ASD, with each displaying a different degree of severity ranging from mild to severe and additional information was provided to gain insight into the child's cognitive and social abilities. While the concept of severity of impairment is not formally included in the definition of ASD, for the purpose of this study the severity of the three student profiles was determined by polling teachers to rate which student would be the most challenging to include in a regular education classroom.

After reading the vignette (see Table 1), principals were asked to complete the same seven questions about each student assuming that they were told that the following students with ASD has just transferred from another school into their own and will be requesting to attend your regular education class starting next week. All items utilized 7-point Likert scales ranging from strongly agree (1) to strongly disagree (7). The questions addressed principal's recommendations for enrolling the student in a general education classroom, the amount of time the inclusion of this student would impact them, their confidence in their staff to teach the child in a general education classroom, whether their professional training and experience would allow them to support their staff, and whether their access to specialized resources would be adequate.

Attitudes, subjective norms and behaviour beliefs. In the final section of the survey, principals responded to 21 items that related to TpB and gathered information on their attitudes, their intentions, the influence of important others (subjective norms), and the perceived control they have on their behaviour. Each item contained a 7-point Likert type classification ranging from 1 to 7 using various qualifiers outlined in the next section.

Table 1

Student profiles

Severity of ASD	Description
Mild	Adrian is a student diagnosed with Asperger's syndrome. He has an IQ in the superior range and loves anything to do with space. Adrian uses sophisticated language to communicate. He does not have any friends at school, nor does he have friends in the community. Adrian is fixated on rules and gets very upset when classmates do not follow school rules or when he perceives them as being rude.
Moderate	Andrew is a student diagnosed with autism who received programming in a self contained classroom for students with autism the previous school year. He has poor eye contact and engages in some self-stimulatory behaviour such as twirling objects and rocking. He is able to speak, but his speech is echolalic (repetition of words or phrases) and not always appropriate to context. He is extremely sensitive to noise, crowding, and bright lights. Fire alarms/drills are especially problematic for Andrew.
Severe	Amy is a student diagnosed with autism who received programming in a contained classroom for students with autism. Amy has no speech and few vocalizations and she will often laugh uncontrollably. She uses picture exchange communication system (PECS) to request when prompted. Amy only eats with her hands, and has few self-care skills. Amy has low cognitive abilities and continues to work on basic life skills. She is easily over stimulated and has difficulty staying focused. She requires constant supervision and will run out of any doors within eye sight when supervisors are not paying attention.

Attitudes. Attitude toward inclusion was assessed with principals responding to one question "for me, to teach a student with ASD in a general education classroom is…." in three separate ways: 1) routine – challenging; 2) wise -foolish; and 3) satisfying -unsatisfying. Participants rated each of the three questions on a seven point rating scale. For the present investigation, a mean score was derived for responses to these questions and reliability, assessed via Cronbach's alpha, was found to be $\alpha = .67$.

Subjective norms. Subjective norms were assessed with nine items and participants were asked to rate each question using a 7-point scale ranging from definitely true or strongly agree (1) and definitely false or strongly disagree (7). These included questions requiring principals to respond to statements like "most principals in my school district have high expectations for academic achievement and behaviour for all students." and "it is expected that I provide teachers with professional development opportunities in the area of inclusive education for students with ASD." Next principals reflected on the following statements "most people whose opinions I value believe that high quality instruction can be provided for all students in general education classrooms" and "most people who are important to me think that I should place a student with ASD in a general education classroom." Principals then responded to the questions "I should/should not provide all teachers with professional development opportunities in the areas of inclusive education for students with ASD." Finally principals responded to a series of four questions that asked their opinion on belief statements about their school boards superintendent, parents of students with disabilities, parents of non-

disabled students, and their school's general classroom teachers regarding their beliefs on whether we should teach students with ASD in general education classrooms. For the present investigation, a mean score was derived for responses to these questions and reliability, assessed via Cronbach's alpha, was found to be $\alpha = .71$.

Perceived control. Next, perceived behaviour control was assessed with eight items and participants were asked to rate each question using a 7-point scale ranging from strongly agree, impossible or extremely difficult (1) and strongly disagree, extremely easy or possible (7). Principals first responded to three statements about high quality instruction; "high quality instruction for all students in general education classrooms is," "high quality instruction can be provided in the general education classroom for all students" and "for me to ensure that high quality instruction is provided in the general education classroom for all students is." Next principals were asked to reflect on the areas of professional development and if their staff readiness to teach students ASD with the questions: "the staff in my school are prepared to meet the needs of all students within their general education classrooms," "for me to provide teachers with appropriate professional development opportunities in the area of inclusive education for students with ASD is," and "all teachers in my school are provided with appropriate professional development opportunities to improve their teaching practice". Last, principals responded to two questions addressing perceived behaviour control; "one advantage of supporting a student with ASD in a general education classroom within my school would be that special academic training for me is not

necessary" and "whether or not school staff work together to support all students is completely up to me." For the present investigation, a mean score was derived for responses to these questions and reliability, assessed via Cronbach's alpha, was found to be $\alpha = .72$.

Chapter 4: Data Analysis and Results

Descriptive statistics were used to compute means and standard deviations of principal's backgrounds and intentions, attitudes, subjective norms, and perceived behaviour control when including students with ASD, and demographics. Correlations and multiple regression procedures were used to evaluate whether level of severity of student ASD was associated with principals' intention, attitude, perceived control and subjective norm. Multiple regression analyses were also used to test if the TpB components influence and predict principals' intention to include students with varying degrees of ASD. To compute all statistics, SPSS PC 20.0 was used.

Preliminary Analysis

Prior to analysis, all questionnaire data were examined for accuracy of data entry and missing data. Of the 89 participants who accessed the questionnaire, there was close to complete data for 67 participants. Of the 67 participants, 7 had failed to complete 1 to 4 of the 63 study questions. As this represented less than 5% of the total amount of data per participant and values were deemed to be missing randomly (i.e., there was no discernible pattern to the missing data) mean values for the missing variables were calculated, entered, and used in all subsequent analyses (Tabachnick & Fiddel, 2007). Sampling distributions of the variables of interest (i.e., intentions, attitudes, subjective norms, and perceived control) were graphically inspected. Normality of distributions, linearity and homogeneity of variance were acceptable for each variable.

To examine whether there were significant differences between principals from the three participating school districts, a MANOVA was conducted with each of the principal characteristics scores (i.e., age, gender, education, special education coursework, level experience with autism) as dependent variables. The result of this analysis yielded a nonsignificant multivariate effect, Wilks' Lamda=.69, $F(2, 62) = 1.59$, $p = .10$, indicating that the principals from the three districts could be combined and treated as one group for all subsequent analyses.

Assumptions of multiple regression analysis. Prior to completing any of the three regression analysis used for this study, all assumptions were checked.

Sample size. To increase generalizability, Stevens (1996, p. 72) recommends that, "for social science research, about 15 subjects per predictor are needed for a reliable equation". The multiple regression analysis calculated for this study included three independent variables and as such the sample size (n=67) meets this sample size requirement

Multicollinearity. When conducting a multiple regression, it is assumed that the independent variables show at least some relationship with your dependent variables (Tabachnick & Fidell, 2007). When considering the student mildly affected by ASD (Adrian) all the scales for attitude (r=.24, p<.05) and perceived control (r=.29, p<.05) showed moderate correlations and subjective norms (r=.18, p=n.s.) showed a small correlation with the dependant variable, principals' intention to include in a general education classroom. For the student moderately affected by ASD (Andrew) there was a moderate correlation with attitude (r=.36, p<.01) and subjective norms (r=.31, p<.05) and small correlation

with perceived control (r=.23, p=n.s.) with principals' intention to include. Finally, for the student severely affected by ASD (Amy) there was a moderate correlation with perceived control (r=.38, p<.01) and a small correlation with subjective norm (r=.26, p<.05) and attitude (r=.22, p=n.s.) with principals' intention to include.

Outliers, Normality, linearity, and homogeneity of variance. Residual scatterplots and the Normal Probability Plot of the regression standardized residuals generated by SPSS were interpreted to check for the assumptions of normality, linearity, and homoscedasticity.

Outliers. Extreme scores were checked for all variables and deleted from the data set, as part of the initial screening process prior to using each regression analysis.

Linearity. Residual plots were examined to ensure that the points were symmetrically distributed in a linear relationship. Assumptions of linearity were met for all variables analyzed.

Homogeneity of variance. Assumptions of homogeneity of variance were checked by visual examination of a plot of the standardized residuals. Residuals were randomly scattered around 0 providing a relatively even distribution for all variables.

Results

Principal demographics. The majority of the respondents (64 %) were elementary, kindergarten to grade 6, school principals; the remaining 18% were principals of kindergarten to grade 9 schools, 12% were principals of grade 7 to 9

schools, and 6% were high school, grades 10-12, principals. Seventy-two percent of the respondents were female and 29 % were male. Five percent of the participants were in the 30-40 years old age group, 39% were 41-50, 43% were 51-60 years old, and 13% were over 61 years old. Over half of the principals surveyed had been principals for less than 10 years. Forty-eight (72%) of the principals were employed by Edmonton Public Schools, 12 (18%) with Elk Island Public Schools, and 7 (10%) with Edmonton Catholic Schools.

Forty-nine percent of participants reported having taken courses in the area of special education, and only 12% reported taking courses in the area of ASD. Of the 67 principals surveyed 90 % reported having experience teaching students with disabilities, while 70% had experience teaching students with ASD. Forty-six (69%) of the participants had masters' degrees; in the areas of educational leadership and administration (n=29), curriculum and instruction (n=8), special education (n=7), consulting psychology (n=1) and religious education (n=1).

Table 2 shows the principals' ratings, on a 4-point scale (no experience, not good, satisfactory, very good), of the quality of most of their typical experiences teaching students with disabilities (M=3.54, SD=0.64) and with their typical experiences teaching students with ASD (M=2.97, SD=1.00) indicating that experiences were, on average, 'satisfactory' for students with ASD and close to 'very good' for teaching students with disabilities. Principals also reported their competence, on a 5-point scale (not at all, a little, somewhat competent, very competent, extremely competent) teaching both students with disabilities

Table 2

Participants quality of experiences and competencies teaching

	M	SD
Quality of Experiences teaching individuals with disabilities	3.54	0.64
Quality of Experiences teaching individuals with ASD	2.97	1.00
Competent teaching students with disabilities	3.64	0.90
Competent teaching students with ASD	3.04	0.98

Note: N=67; Quality of Experiences teaching individuals with disabilities or ASD: 1 = no experiences, 2 = not good, 3 = satisfactory, 4 = very good; Competent teaching students with disabilities or ASD: 1= not at all, 2 = a little, 3 = somewhat competent, 4 = very competent, 5 = extremely competent.

(*M*=3.64, *SD*=0.90) and students with ASD (*M*=2.97, *SD*=0.98), indicating that, on the whole, they felt less competent with children with ASD than other disabilities.

Group Differences. The first research question of this study was to assess whether severity of ASD affected principals' intention to include these students in general education classrooms and whether principals' intentions was influenced by attitudes, subjective norms and perceived behaviour control.

***Student profiles*.** Table 3 presents the findings of principals' responses to the seven questions that addressed attitudes toward inclusion for each student's profile who varied by level of severity. To compare if these responses were significantly different for each of the three students one-way repeated measures ANOVA's were conducted for each question.

The most significant main effect sizes were found in question one - intention to include ($F(2, 64)=61.30$, $p<.0005$, $\eta^2_{patial}=.93$) and question three - principals confidence in their staffs' capability to include students with ASD in the general education classroom ($F(2, 64)=46.71$, $p<.0005$, $\eta^2_{patial}=.95$). Principals intentions to include Amy, a student severely affected by ASD were significantly lower than either their intentions to include Andrew, a student moderately affected by ASD or Adrian, a student mildly affected by ASD, indicating that principals had a more favourable intention toward including students more mildly affected by ASD. Principals' perception of their staffs' ability to teach students with ASD in general education classrooms were

Table 3

ASD Vignettes

	Severely affected (Amy)		Moderately affected (Andrew)		Mildly affected (Adrian)	
Question	M	SD	M	SD	M	SD
1. Would principal recommend enrolling student in regular classroom?	3.23	1.75	4.62	1.72	5.88	1.44
2. Inclusion of student would require a lot of principal time.	5.70	1.63	5.35	1.42	4.55	1.47
3. Confidence in staff to teach student.	3.99	1.64	5.03	1.72	5.93	0.96
4. It would easy for staff to teach student in regular class.	2.70	1.71	3.30	1.77	3.97	1.67
5. Principal's comfort level supporting staff.	3.09	1.72	2.17	1.25	2.11	1.14
6. Principal's perceived need for more training to support staff to include student.	3.99	1.97	3.26	1.77	2.91	1.67
7. Belief that there is a lack of specialized resources to support inclusion of student.	4.26	2.07	3.71	2.00	3.20	1.87

Notes: Strongly Disagree (1) to Strongly Agree (7). Questions 1-4, 6 & 7 reworded to reflect reverse scoring.

significantly lower for students more severely affected by the disorder then those more moderately or mildly affected by the disorder.

Moderate effect sizes were reported for question two – principals' time requirements to support students with ASD ($F(2, 65)=16.05$, $p<.0005$, $\eta^2_{patial} =.33$), question four – the ease of staff to include ($F(2, 65)=16.64$, $p<.0005$, $\eta^2_{patial} =.34$), and question seven - access to specialized resources ($F(2, 63)=16.80$, $p<.0005$, $\eta^2_{patial} =.35$). Finally, question five – principals comfort level ($F(2, 62)=10.92$, $p<.0005$, $\eta^2_{patial} =.26$) and question six – principals needing more training ($F(2, 63)=14.31$, $p<.0005$, $\eta^2_{patial} =.31$) reported the lowest effect sizes. Regardless of the effect size, the mean scores in each category differed significantly between the three vignettes, highlighting the tendency principals have to select more positive responses for students more mildly affected by ASD.

Correlational relationships with TpB variables and principal attributes. The second research question in this study explored the association between principal attributes and the TpB constructs. Table 4 presents the relationships among principal attributes and demographic information along with the TpB variables, intention, attitude, perceived behaviour control, and subjective norms.

Special education courses. The variables with significant correlations to principals who reported taking special education courses included their experience teaching individuals with disabilities ($r=.32$, $p<.05$) and ASD ($r=.46$, $p<.01$). The data suggest a strong relationship between principals who felt more competent

Table 4

Correlation Matrix Relating principal backgrounds and TpB *components*

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender	__													
2. Special Ed Courses	-.18	__												
3. Experience with Disabilities	.28*	.32*	__											
4. Experiences with ASD	-.02	.46**	.36**	__										
5. Quality of Exp. with disability	.25*	.38**	.43**	.42**	__									
6. Quality of Exp. with ASD	.04	.26	.16	.55**	.53**	__								
7. Competence teaching disability	.28*	.56**	.46**	.52**	.68**	.46**	__							
8. Competence teaching ASD	.24	.39**	.34**	.43**	.48**	.58**	.69**	__						
9. Intention (Mild)	-.06	.11	.04	.07	-.06	.14	.02	-.02	__					
10. Intention (Moderate)	-.11	.30*	.00	.02	.10	-.13	.13	.05	.30*	__				
11. Intention (Severe)	.08	.33**	.08	-.07	-.04	-.17	-03	-.04	.27*	.48**	__			
12. Attitude	-.06	.13	.16	.25	.20	.28*	.13	-.12	.24*	.36**	.22	__		
13. Subjective Norm	-.03	.11	.01	-.03	.05	.16	.03	-.03	.18	.31*	.26*	.48**	__	
14. Perceived Control	-.06	.17	.06	.08	.23	.20	.31*	.32**	.29*	.23	.38**	.33**	.36**	__

*p<.05, **p<.01

Note: N=67 except Gender N=66, Special Ed. Courses N =65, Experience with Disabilities N =65, Quality of Exp. With Disabilities N=65.

teaching students with disabilities (r=.56, p<.01) and those with ASD (r=-.39, p<.01) and taking special education courses.

Experiences. Correlational data reveal a trend of association among positive experiences teaching and positively perceived experiences among both ASD and children with other developmental conditions with correlations ranging from r=.34, p<.05 to r=.55, p<.05.

TpB variables. The third research question addressed the association between principals' intention to include students with ASD who appear to be mildly, moderately, or severely affected by the disorder and the constructs of the TpB, attitude, perceived control, and subjective norms.

Principals' intentions to include a student who was mildly affected by ASD (Adrian) in a general education classroom was significantly correlated with attitude (r=.24, p<.05), perceived control (r=.29, p<.05), and moderately correlated with subjective norms (r=.18, p=n.s.).

Intentions to include a student who was moderately affected by ASD (Andrew) was strongly correlated with attitude (r=.36, p<.01), subjective norms (r=.31, p<.05), and moderately correlated with perceived control (r=.23, p=n.s.). For this student, principal intention was also strongly correlated with having taken special education coursework (r=.30, p<.05).

For a student who was severely affected by ASD (Amy), principals intentions to include was strongly correlated with perceived control (r=.38, p<.01), subjective norms (r=.26, p<.05) and moderately correlated with attitude (r=.22, p=n.s.). For this student, principal intention was also strongly correlated

with having taken special education coursework (r=.33, p<.01).

Principals attitudes were significantly correlated with subjective norms (r=.48, p<.01) and perceived control (r=.33, p<.01). Perceived control was also significantly correlated with subjective norm (r=.36, p<.01). In addition to the relationship between the variables in the TpB, principals attitudes towards inclusion of students with ASD was strongly correlated with quality experiences teaching students with ASD (r=.28, p=n.s.) and experience teaching students with ASD (r=.25, p<.05). Perceived control was strongly correlated with quality experiences working with students with disabilities (r=.23, p=n.s.) and competency teaching students with disabilities (r=.31, p<.05) and competency teaching students with ASD (r=.32, p<.01).

Predicting intentions. The forth, and final, research question addressed by this study was if principal's intentions to include students with ASD can be predicted by their attitudes, subjective norms, or perceived control. To determine whether intention to include was predicted by the theoretical constructs of the TpB (attitude, subjective norms, and perceived behaviour control), standard multiple regression analyses were run for each student described in the student vignettes. The results are presented below.

Mildly affected. This model provided an explanation for 7% of principals' intention to include a student mildly affected by ASD and the model as a whole was nonsignificant, $F(3, 63) = 2.52$, $p = .066$. Table 5 provides the results of the regression correlating principal intention to include Adrian with the constructs of

Table 5

Regression analysis of intention to include student mildly affected by ASD (Adrian)

	B	SE B	β
Constant	2.86	1.31	
Attitude	.20	.18	.16
Perceived Behaviour Control	.33	.19	.23
Subjective Norm	.05	.27	.03

Note: Adjusted R^2 = .07 (*p*=n.s.).

the TpB. The strongest unique predictors was perceived behaviour control (β=.23, *p*=n.s.) followed closely by attitude (β=.16, *p*=n.s.).

Moderately affected. The total variance explained by this model was 12% for the student moderately affected by ASD, and the model as a whole was significant, $F(3, 63) = 4.04$, $p = .011$. The model summary of the regression analysis (see Table 6) shows that principals attitudes (β=.26, $p<.05$) make a significant contribution to their intention to include Andrew in a general education classroom.

Severely affected. The total variance explained by this model was 13% for a student severely affected by ASD, and the model as a whole was significant, $F(3, 63) = 4.04$, $p = .011$.

The multiple regression procedure (see Table 7) showed that perceived behaviour control (β=-.32, $p<.05$) makes a significant contribution to their intention to include Amy in a general education classroom.

Table 6

Regression analysis of intention to include student moderately affected by ASD (Andrew)

	B	SE B	β
Constant	.05	1.52	
Attitude	.39	.20	.26
Perceived Behaviour Control	.17	.22	.10
Subjective Norm	.34	.32	.15

Note: Adjusted $R^2 = .12$ ($p < .01$).

Table 7

Regression analysis of intention to include student severely affected by ASD (Amy)

	B	SE B	β
Constant	-1.65	1.54	
Attitude	.09	.21	.07
Perceived Behaviour Control	.57	.22	-.32*
Subjective Norm	.28	.32	.12

Note: Adjusted R^2 = .13 ($p < .01$). * $p < .01$.

Chapter 5: Reflections and Recommendations

The present study was designed to investigate school principals' intentions to include, attitudes regarding inclusion, perceptions of social normative pressures about inclusion, and perceived control about the inclusion of students who appear to be mildly, moderately, or severely affected by ASD. Hypotheses regarding the association between principals' intentions and individual characteristics and of the variables found within the TpB framework - attitude, social norms, and perceived behaviour control - were partially supported. These finding will be discussed, along with implications for practice and future research.

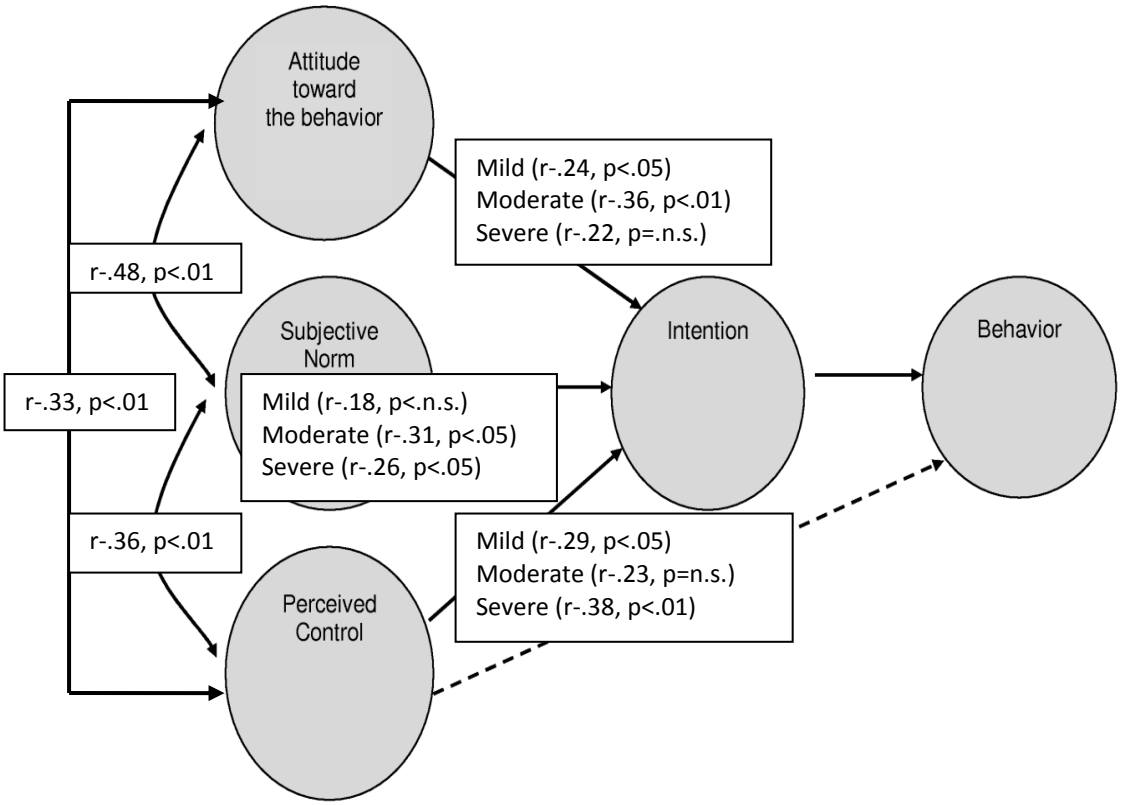
Interpretation of Results

Effect of severity of ASD. One purpose of this study was to determine whether principals' intentions to include, attitudes regarding inclusion, perception of social normative pressures about inclusion, and perceived control about inclusion vary when presented with students with ASD who appear to be mildly, moderately, or severely affected by the disorder. Results favoured my prediction that less positive responses would be associated with students who appear to be more severely affected by ASD.

Intention. As seen in Figure 2, the results from this study indicate that principals' intentions to include students with ASD vary depending on how severely the student is affected by ASD. Principals reported more positive intentions to include Adrian, the student who appeared to be mildly affected by ASD, and more negative intentions to include Amy, the student who appeared to

Figure 2

Correlations of the TpB determinants



be severely affected by ASD. This finding is consistent with pervious findings (Horrocks et al., 2008) that suggest that principal's intentions to include students with ASD is influenced by student strengths in both academic and social areas, both of which were reflected in the student profiles used in the present study. As the severity of ASD increases the demands, both perceived and realistic, increase providing one possible explanation for these results. As noted, the participants involved in this study have varying personal and professional backgrounds and this also contributes to our findings; principals who had less experience and less special education coursework in the area of ASD were less likely to recommend enrolling students with ASD who appeared to be more moderately or severely affected by the disorder.

It is important to note, that although results showed that principals intentions varied depending on how severely the students were affected by ASD, the standard deviations for the principal's responses to individual questions were 1.74 (severely affected), 1.72 (moderately affected) and 1.43 (mildly affected). This large range shows that the participants in this study do not all feel the same way about the inclusion of students with ASD and this variation appears to be associated with individual principal characteristics, educational background and experiences with ASD. An attempt will be made to provide explanations for this variation in the upcoming sections.

Attitude, subjective norms, and perceived behaviour control. Attitudes regarding inclusion, perception of social normative pressures about inclusion, and perceived control about inclusion were addressed in the questionnaire completed

by principals using common questions and as such I am unable to directly comment on the variability of principals' responses when presented with children with ASD who appear to be mildly, moderately, or severely affected by the disorder; however, I can note the relationship between these constructs of the TpB and principals intention to include.

This study found a positive relationship between principals who reported high ratings for inclusion and their attitudes towards inclusion. The correlation between attitude and intention to include a student mildly, moderately and severely affected by ASD suggest a moderate relationship between the two variables. I found a similar correlation between the construct of subjective norms and intention to include a student mildly, moderately and severely affected by ASD and between the two variables perceived control and intention to include a student mildly, moderately and severely affected by ASD. The relationships between these variables reinforce the idea that principals who reported positive intentions towards the inclusion of students with ASD in a general education classroom also reported positive attitudes towards inclusion, were influenced by social normative pressures about inclusion, and felt they had better perceived control (knowledge and skills) about including children with ASD. For the TpB constructs, attitude and subjective norms, there is stronger relationship with intentions to include a student moderately affected by ASD; whereas for the construct of perceived control there is a stronger relationship with intentions to include a student severely affected by ASD.

As "the relative importance of attitude, subjective norm, and perceived behavioural control in the predication of intention is expected to vary across behaviours and situations" (Ajzen, 1991, p. 188) these results are not surprising. In the current study it appears that the severity students are affected by ASD influences the independent contributions the three predictors of the TpB have on principals' intentions to include. One would anticipate that students who are severely affected by the ASD would require the most intensive support. For these students, even though principals may have positive attitudes towards inclusion and that social normative pressures support inclusive placements their intentions are likely more influenced by their perceived behavioural control; if they do not feel confident in their abilities to include the specific child they will likely not recommended enrolling them in a general education classroom. Alternatively for students who are moderately affected by the disorder, and would likely not require as much specialized supports perceived control is of less importance and the TpB determinants attitude and subjective norms are able to have greater contributions.

Principal characteristics. The second purpose of this study was to examine was the association between principals' characteristics (i.e. gender, age) and educational background and experiences with ASD with their intentions to include students with ASD, attitudes regarding inclusion, perception of social normative pressures about inclusion, and perceived control about the inclusion of children who appear to be mildly, moderately, or severely affected by ASD.

Intention. Principals' educational background seemed to have the strongest relationship with their intentions to include children affected by ASD

indicating that those with more education had greater intention to include. There was a moderate relationship between principals intention to include a student moderately and severely affected by ASD suggesting that their educational background influenced their intentions to include these students in a general education classroom.

There was a small relationship between principals who reported quality experiences teaching students with ASD and their intentions to recommend placement in a general education classroom. It was predicted that principals who reported quality experiences working with children with disabilities as well as competency teaching children with disabilities and ASD would be more likely to recommend inclusive placements for students with ASD; however as seen in Table 4 there were little correlation found between these variables in this study.

Attitude. There was a moderate relationship between attitude and principals experience teaching students with ASD, and their reported quality experiences teaching both students with disabilities and with ASD. This study found a small correlation between principals' attitudes towards inclusion and who reported taking special education courses and experiences teaching students with disabilities suggesting a relationship between attitude and these two variables.

There were several factors that did not yield significant correlations with principals reported attitudes and perceived control. It has been reported that principals with more years of experience and those with special education qualifications have more positive attitudes towards inclusive efforts (Center et al., 1985); however the present study revealed little relation. It was also hypothesized

that the grade level of the school from which the principal was presently working would influence attitudes; however we were unable to analyze this variable do the limited number of participants from some grade levels.

Subjective norms. This study found a small correlation between principals' perception of social normative pressures about inclusion and having taken special education courses and reported quality of typical experiences teaching students with ASD. One interpretation of this result could be that those who have taken additional course work in the area of special education and had quality experiences teaching students with ASD may be more aware of the social pressures that are pervasive in society today (Lynch & Irvine, 2009).

Perceived control. In this sample, there was a significant relationship between principals who reported high levels of perceived control and competency both teaching students with disabilities and ASD. There was a moderate correlation between perceived control and principals who reported quality experiences teaching both students with disabilities and ASD. Additionally there was a relationship between principals who took special education classes and their perceived control to include students mildly, moderately, and severely affected by ASD.

The TpB variable of perceived control had no statistically significant relationships with principals reporting taking special education courses, experiences with students with disabilities and/or ASD, family members with disabilities, or competence teaching students with disabilities and/or ASD.

Intention and TpB variables. The final research questions addressed

whether intention to include is associated with or predicted by the variables in TpB, attitudes, subjective norms, or perceived control for children with ASD who are mildly, modernly, or severely affected by the disorder. This study found a great amount of variance in principals' intentions to include students with ASD who display varying levels of severity. The results from this study, summarized in Table 8, suggest that principals were more likely to recommend, intend, to include in a general education classroom students who appear to be mildly affected the disorder.

Association between intention and the* TpB *variables. Correlational data shows that the three determinants – attitudes, social norms, and perceived behavioural control are associated. A medium correlation between attitude, subjective norm, and perceived control were revealed suggesting a strong relationship between the three variables.

Predictability of intention with the TpB variables. Multiple regression analysis were used to test if the TpB constructs, attitude, perceived behaviour control, and subjective norms predicted participants' ratings of their intention to include students with ASD displaying varying degrees of severity.

The results of the regression for Adrian, a student mildly affected by ASD, indicate the three predictors explained 7 % of the variance in the model. It was found that perceived control made the strongest unique contribution, followed by attitude, and subjective norms.

Table 8

Summary of regression analysis of intention to include students affected by ASD

Severity affected by ASD	Significance of model	Strongest unique predictors
Mild	$F(3, 63) = 2.52$, $p = .066$	perceived behaviour control (β=.23, p=n.s.) attitude (β=.16, p=n.s.)
Moderate	$F(3, 63) = 4.04$, $p = .011$	attitudes (β=.26, $p<.05$)
Severe	$F(3, 63) = 4.04$, $p = .011$	perceived behaviour control (β=-.32, $p<.05$)

The results of the regression for Andrew, a student moderately affected by ASD, indicate the three predictors explained 12 % of the variance in the model. It was found that attitude made the strongest unique contribution, followed by subjective norms, and perceived behavioural control.

The results of the regression for Amy, a student severely affected by ASD, indicate the three predictors explained 13 % of the variance in the model. It was found that perceived control made the strongest unique contribution, followed by subjective norms, and attitude

Discussion

Recommendations. The study reinforces the notion that there are several factors that influence the decisions that administrators make when implementing inclusive education. Principals in this study who had positive experiences working with students with disabilities and ASD as well as those who had taken special education courses were more likely recommend inclusive placements for students with ASD. Additionally, the perceived severity of children with ASD appears to have influence over principals' perceptions and they are more likely to recommend students for inclusive placements if their severity is lower.

Implications for practice. The results of this study reinforce Horrocks, White, and Roberts (2008) finding that principals' positive attitudes are a critical prerequisite for successful inclusion. It was found that principal's attitudes towards teaching students with ASD in general education classrooms had a strong relationship between their intentions to include students mildly and moderately affected by ASD, and a moderate relationship with their intentions to include a

student severely affected by ASD. Park and Chitiyo (2011) found that teachers' positive attitudes were influenced by their personal and professional experiences; and this study found similar influences for principals' positive attitudes towards. This highlights the importance of principals' attitudes towards inclusive education for students with ASD, and highlights the need to explore ways these attitudes could be influenced.

Furthermore, this study articulates the need to further investigate the influence of principals' professional learning on their placement recommendations and ultimately influence their attitudes towards inclusive education. The results suggest that school principals may not be fully prepared to support the teachers in their schools to include students with ASD. Simpson, Mundschenk, and Helfin (2011) stress the importance of providing appropriate supports for students and staff to meet the needs of students with ASD in their neighborhood schools. As school principals are responsible for providing these supports it is crucial to ensure they have the resources and the awareness to ensure these are made available in their school. If a goal is to create an inclusive education system, professional learning opportunities must be made available to school administrators in order to provide them with the skills and knowledge required to fully realize this for all students, including those with ASD.

The question becomes what topics should be included in order to support inclusive education in professional learning opportunities for school leaders. It is important to note Horrocks et al (2008) finding that formal training did not necessarily predict more positive attitudes towards the inclusion of students with

ASD. As it would be difficult to fully prepare leaders to meet the needs of all students especially students with ASD who may display a wide range of abilities it is important to explore which learning opportunities create the greatest impact. Do school principals' need additional training in student related skills including topics such as differentiated instruction and classroom interventions for students with exceptionalities such as ASD, or training in a more philosophical nature exploring a deeper understanding of the importance of inclusive education and the need to provide their staff with appropriate training to prepare them for working with students with more severe needs? The three determinants of the TpB - attitude, subjective norms and perceived control - could provide some direction for future professional development. Most professional learning impacts individuals perceived control as the aim of these experiences if often to increase knowledge; however these experiences often indirectly impact one's attitudes and awareness of normative expectations. The results of this study suggest that principals could benefit from learning opportunities to influence their attitude and perceived control towards the inclusion of students with ASD; the more knowledge school leaders have the more they will be in a position to influence inclusive education. As recommended by Lynch and Irvine (2009), one approach could be to integrate best practice for ASD and inclusive education and that leadership and funding continue to be the prerequisite for establishing this foundation for successful inclusion.

It is equally important to understand when this professional learning should take place. It appears that this learning may be useful before school

principals are faced with making decisions related to inclusive education and perhaps should take place while they are in the role of an assistant principal who in the province of Alberta are often given the role of coordinating the education of students with exceptionalities in their schools. Alternatively professional learning could take place in tandem of programming for students with exceptionalities, providing principals with a context for their learning. Again this is an area where further research could provide insight into how to influence principals' intentions towards their inclusion of student with ASD.

One possible application of the results from this study would be to provide principals with an opportunity to regularly discuss their experiences with inclusion, particularly their successes and challenges when working with students with more severe exceptionalities such as ASD. The hope would be that from these discussions principals will become more aware different strategies when working with these students and possibly help them reflect on their practices and identify areas for own future learning. The next step would be for school boards to provide ongoing opportunities for this learning to occur.

Implications for policy. The results of this study reinforce the need to address educational policy from both the provincial and school based level.

With new inclusive education practices outlined in provincial documents such as Alberta Education's Action on Inclusion (Alberta Education, 2011) it is important to recognize that while these documents and accompanying workshop experiences may influence principals' awareness of social expectations (social norms), they do little in the way of addressing principals' attitudes and perceived

control. When planning to implement these new initiatives it is important to find ways to address attitudes and perceived control as these constructs have been found to influence principals' intentions to include students with ASD.

One should not ignore the complex roles school principals are faced with; not only are they responsible for the day to day operations at their school they have an important influential role in the implantation of various initiatives including inclusive education practices. The results of this study reinforce that principals should not only be required to have experience or training in the areas of administration and leadership but also need to have knowledge and experiences working with students with disabilities and ASD. These experiences would not only directly address principals perceived behavioural control and attitude but would indirectly influence their understandings of social expectations.

Future research. While the findings of this study identified some potential influences over principals' intentions to include students with ASD, work continues to be needed in this area. The TpB provided a model for understanding the predictors of intention; however the influence of attitude, subjective norms, and perceived behavioural control only accounted for at most one quarter of the variability in this study. It is important to further explore other potential variables that influence principals' intentions and behaviours.

The student profiles used in this study explicitly stated that they were either diagnosed with autism or Asperger's syndrome. It would be of interest to examine if principals' beliefs and intentions towards their inclusion were

influenced by these labels. Future studies could focus on removing labels and giving respondents only behavioural characteristics in the student profiles.

This current study explored principals' intentions towards the inclusion of students with ASD and it would be of interest to examine principals' actual behaviours through case studies; if their intention is to recommend inclusive placement are those students, are they actually included. While you would need to define successful inclusion, it would be of interest to explore if success of inclusion of students with ASD is influenced by principals attitudes and intentions.

The results of this quantitative study reinforce the findings from previous qualitative and mixed method studies (McLeskey & Waldron, 2006, 2011, Salisbury, 2006) that identify the important role principals contribute in developing highly effective, inclusive schools. As seen from the findings of this study, without a specific plan or support structure in place even a new provincial framework for inclusive education (Alberta Education, 2011) will not be fully realized. The roles and influences school principals provide should not be ignored as comprehensive, long term school change activities occur (Fullan, 2011; McLeskey & Waldron, 2006, 2011).

Study limitations. Generalizations from the results are interpreted cautiously for several reasons. First is related to the very nature of a questionnaire research design itself. Typical of many studies involving questionnaires the response rate was low resulting in a small sample size which limits the ability to generalize results. While the sample size allowed for statistical analysis, it does

not hold the power to suggest generalization of response. Questionnaires also cause some limitations as the researcher is not present and it is difficult to know whether or not a respondent has understood the question properly or if the questions asked mean the same to all respondents as they do the researcher.

Additionally, participants were recruited from three separate school boards in two separate but equally problematic ways. Principals from Edmonton Public School board were notified through a posting on an internal message board which may or may not have been read by all principals. While participants from Edmonton Catholic School Board and Elk Island Public School Board allowed for personal introductory and follow up reminder emails to be sent to all participants, this method still did not ensure that all potential participants were informed of the study. As such one could conclude that the principals who took the time and trouble to respond to questionnaire were from a highly motivated section of the sample, and their strong options may not be a true representation of the population. Alternatively, it would be just as important to consider why some principals choose not to participate as this too may have influenced the findings of this study.

While attempts were made to create three vignettes to reflect the variability of ASD it is difficult to identify which elements of the student profile influenced principals' responses to the questionnaire. Future studies could create vignettes with only variability amongst one specific characteristics of ASD, socialization, communication, or adaptive behaviour.

Finally, another limitation of this study results from the assumption that all principals had teaching experience and that these experiences influenced their intention. The questionnaire included items inquiring if the participants had experience teaching individuals with disabilities and individuals with ASD, but failed to gather information regarding their experience as an administrator. While the study explored participants professional teaching experiences but failed to consider their experiences as an administrator. This is potentially problematic since a participant may not have had any formal experiences, either positive or negative, but had experiences working with individuals with disabilities of ASD as an administrator and these experiences may even have a greater influence on intention.

Concluding thoughts. It is noted that educators have two choices "the road to exclusion or the road to inclusion...[and] the road we choose has little to do with finances or law[and] has everything to do with values and leadership" (Pearpoin & Forest, 1992, as cited in Killoran, 2002, p. 371). In order to make progress in the area of inclusive education we must move beyond just having policies supportive of inclusion, we need to create truly supportive environments where all stakeholders feel capable of achieving true inclusion. While school principals are in the influential position to create these environments, "there are few models and procedures to facilitate the successful inclusion of … students; therefore educators are faced with the task of designing programs in the absence of clear guidelines and procedural protocols" (Horrocks, White, & Roberts, 2008, p. 1463).

As a principal's belief about inclusion is hard to overstate, efforts should be directed towards educating and empowering this powerful group of individuals. When faced with the challenges of inclusion, they will make the difficult decisions and provide appropriate supports to ensure success for all students if it is in fact part of their philosophy and schools' vision. Once this is established, principals and decision makers will take on the role of promoting inclusion by encouraging and actively supporting inclusive placements. Efforts will be made to ensure schools are physically prepared for inclusion and will focus on teacher's staff development. School principals and those in formal leadership positions have great influence over a schools climate, and their passion for inclusive education can be contagious.

Further research in the area of inclusive education is required for true progress to be made in the field. Principal's stories of success and struggles need to be shared so professionals can learn from their experiences and potential roadblocks can be identified.

As we move towards having inclusion as a culture of teaching, and begin to embrace diversity in schools, professionals will be ready to meet the varying needs of all their students. Creating an inclusive learning climate is really not as difficult as one may think, as long as all stakeholders have an open mind and willingness to learn and seek creative solutions it can become a reality. Progress will not happen without its challenges, and it's important to embrace these challenges and grow from all experiences gained on the journey towards inclusion.

By increasing our understanding of principals' beliefs and intentions toward inclusion we will support scholars in the field to examine professional development and training opportunities to promote effective inclusive educational practices for students with ASD. "The question is no longer whether to include students with special needs into the regular classroom. Inclusion is here to stay. The question is how to make inclusion most effective for all students?" (Horne & Timmons, 2009, p. 284).

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Appendix

Principals' Beliefs and Intentions towards their Inclusion of Students with Autism Spectrum Disorders

Please complete the survey below.

Dear Participant:

My name is Shaun Hall and I am a graduate student in Educational Psychology at the University of Alberta. I am conducting a study to examine the attitudes and intentions of current principals towards the inclusion of students with autism spectrum disorders (ASD) in general education classrooms. I am interested in answering the following question in an attempt to provide better professional learning opportunities for future leaders.

1. What influences principals' attitudes and intentions towards including students with autism spectrum disorder (ASD) in general education classrooms within their school?

To determine this, school principals from Edmonton and surrounding areas will be asked to fill out an online questionnaire. Results from this study are important in gaining an understanding of the influence of personal and professional experiences necessary in providing the training and support needed to promote successful inclusion practices.

Your participation is completely voluntary and you are under no obligation to participate in this study or answer any specific questions even if you participating in the study. As a participant you will be requested to select yes if you agree to participate or close the browser if you do not wish to participate. No information that would identify participants will be requested or reported in written documents. Furthermore, all data will be kept in a locked cabinet and a password protected computer at all times.

If you agree to participate in this study, please know that you are free to withdraw at any time without consequences. This study has been approved by the Research Ethics Board of the Faculties of Education and Extension at the University of Alberta. If you have any questions or comments about this study or measurement and evaluation in general, I would like to hear from you. Please contact me at 492-7425 at the Department of Educational Psychology at the University of Alberta or please email me at sfhall@ualberta.ca For additional questions regarding participant rights and ethical conduct of research, contact the Chair of the Research Ethics Board at (780) 492-3751.

Sincerely,

Shaun Hall

Do you understand that you have been asked to be in a research study?

- ☐ Yes
- ☐ No

Have you read the Study Information Sheet (located above)?	☐ Yes ☐ No
Do you understand that you are free to leave the study prior to submitting the completed questionnaire, without having to give a reason?	☐ Yes ☐ No
I agree to participate in the above mentioned study.	☐ Yes ☐ No

Personal Background and Professional Experiences

1	Identify your gender.	☐ Male ☐ Female
2	What is your age?	☐ 30-40 years old ☐ 41-50 years old ☐ 51-60 years old ☐ 61 years of age or older
3	How many years have you been a principal?	☐ 0-5 years ☐ 6-10 years ☐ 11-15 years ☐ 16 years or more
4	Have you taken any courses on general Special Education?	☐ Yes ☐ No
	How many courses?	_____
5	Have you taken any courses specific to autism spectrum disorders (ASD)?	☐ Yes ☐ No
	How many courses?	_____
6	Do you have a Masters Degree?	☐ Yes ☐ No
	What was your area of study?	_____
7	Have you had any experience teaching individuals with disabilities?	☐ Yes ☐ No
	How many years have you taught individuals with disabilities?	_____
8	Have you had any experience teaching individuals with autism spectrum disorder?	☐ Yes ☐ No
	How many years have you taught individuals with autism spectrum disorder?	_____
9	Do you have any family members with a disability?	☐ Yes ☐ No
10	Do you have any family members who have autism spectrum disorder?	☐ Yes ☐ No
11	Do you have any close personal friends with a disability?	☐ Yes ☐ No
12	Do you have any close personal friends with autism spectrum disorder?	☐ Yes ☐ No
13	Do you have a disability?	☐ Yes ☐ No
14	Rate the quality of most of your typical experiences teaching students with disabilities.	☐ No experience ☐ Not good ☐ Satisfactory ☐ Very good
15	Rate the quality of most of your typical experiences teaching students with autism spectrum disorder.	☐ No experience ☐ Not good ☐ Satisfactory ☐ Very good

16 How competent do you feel teaching a student with disabilities?

- ☐ Not at all
- ☐ A little
- ☐ Somewhat competent
- ☐ Very competent
- ☐ Extremely competent

17 How competent do you feel teaching a student with autism spectrum disorder?

- ☐ Not at all
- ☐ A little
- ☐ Somewhat competent
- ☐ Very competent
- ☐ Extremely competent

18 What grade levels are in your current school?

- ☐ K-6
- ☐ K-9
- ☐ 7-9
- ☐ 10-12

19 Do you have any specialized programs in your school?

- ☐ Yes
- ☐ No

Which one (s) _____

20 Please list any Professional Development/Learning in the area of autism spectrum disorders (ASD) you participated in the last five years. _____

21 Please list any Professional Development/Learning in the area of Inclusive Education you participated in the last five years. _____

Which school board do you work for?

- ☐ Edmonton Public
- ☐ Edmonton Catholic
- ☐ Elk Island Public
- ☐ St. Albert Protestant

Assume for a moment that you have just been told that the following student who has autism spectrum disorder (ASD) has just transferred from another school into yours and will be requesting to attend your general education class starting next week.

Andrew is a student diagnosed with autism who in the previous school year received programming in a self contained classroom for students with autism. He has poor eye contact and engages in some self-stimulatory behaviour such as twirling objects and rocking. He is able to speak, but his speech is echolalic (repetition of words or phrases) and not always appropriate to context. He is extremely sensitive to noise, crowding, and bright lights. Fire alarms/drills are especially problematic for Andrew.

1	If a student like Andrew registered in my school in the next month I would recommend enrolling him in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
2	Teaching a student like Andrew in a general education classroom would not require much of my time.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
3	If they wanted to, I am confident the staff at my school could teach a student like Andrew in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
4	It would not be easy for my staff to teach a student like Andrew in their general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
5	Because of my lack of experience, I would not feel comfortable supporting staff teaching a student like Andrew in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
6	I would need more training before I could support staff at my school with teaching a student like Andrew in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

7	A lack of access to specialized resources to teach a student with autism spectrum disorder (ASD) would affect my ability to support the staff teaching a student like Andrew in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

Assume for a moment that you have just been told that the following student who has autism spectrum disorder (ASD) has just transferred from another school into yours and will be requesting to attend your general education class starting next week.

Amy is a student diagnosed autism who received programming in a contained classroom for students with autism. Amy has no speech and few vocalizations and she will often laugh uncontrollably. She uses picture exchange communication system (PECS) to request when prompted. Amy only eats with her hands, and has few self-care skills. Amy has low cognitive abilities and continues to work on basic life skills. She is easily over stimulated and has difficulty staying focused. She requires constant supervision and will run out of any doors within eye sight when supervisors are not paying attention.

1	If a student like Amy registered in my school in the next month I would recommend enrolling her in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
2	Teaching a student like Amy in a general education classroom in my school would not require much of my time.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
3	If they wanted to, I am confident the staff at my school could teach a student like Amy in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
4	It would not be easy for my staff to teach a student like Amy in their general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
5	Because of my lack of experience, I would not feel comfortable supporting staff teaching a student like Amy in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
6	I would need more training before I could support staff at my school with teaching a student like Amy in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

7	A lack of access to specialized resources to teach a student with autism spectrum disorder (ASD) would affect my ability to support the staff teaching a student like Amy in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

Assume for a moment that you have just been told that the following student who has autism spectrum disorder (ASD) has just transferred from another school into yours and will be requesting to attend your general education class starting next week.

Adrian is a student diagnosed with Asperger's syndrome. He has an IQ in the superior range and loves anything to do with space. Adrian uses sophisticated language to communicate. He does not have any friends at school, nor does he have friends in the community. Adrian is fixated on rules and gets very upset when classmates do not follow school rules or when he perceives them as being rude.

1	If a student like Adrian registered in my school in the next month I would recommend enrolling him in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
2	Teaching a student like Adrian in a general education classroom in my school would not require much of my time.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
3	If they wanted to, I am confident the staff at my school could teach a student like Adrian in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
4	It would not be easy for my staff to teach a student like Adrian in their general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
5	Because of my lack of experience, I would not feel comfortable supporting staff teaching a student like Adrian in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
6	I would need more training before I could support staff at my school with teaching a student like Adrian in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

7	A lack of access to specialized resources to teach a student with autism spectrum disorder (ASD) would affect my ability to support the staff teaching a student like Adrian in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

Additional questions

1	I would be willing to enroll a student with autism spectrum disorder (ASD) in a general education classroom in my school in the next month.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
2	For me, to teach a student with autism spectrum disorder (ASD) in a general education classroom is:	☐ 1-Routine ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Challenging
3	For me, to teach a student with autism spectrum disorder (ASD) in a general education classroom is:	☐ 1-Wise ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Foolish
4	For me, to teach a student with autism spectrum disorder (ASD) in a general education classroom is:	☐ 1-Satisfying ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Unsatisfying
5	Most of the principals in my school district have high expectations for academic achievement and behaviour of ALL students.	☐ 1-Definitely True ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Definitely False
6	It is expected that I provide teachers with professional development opportunities in the area of inclusive education for students with autism spectrum disorder (ASD).	☐ 1-Definitely True ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Definitely False
7	Most people whose opinions I value believe that high quality instruction can be provided for ALL students in general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
8	Most people who are important to me think that I should placea student with autism spectrum disorder (ASD) in a general education classroom.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

9	I should / should not provide all teachers with professional development opportunities in the areas of inclusive education for students with autism spectrum disorders (ASD).	☐ 1-I should ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-I should not
10	High quality instruction for ALL students in general education classrooms is	☐ 1-Impossible ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Possible
11	For me to provide teachers with appropriate professional development opportunities in the area of inclusive education for students with autism spectrum disorders (ASD) is	☐ 1-Impossible ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Possible
12	Whether or not school staff work together to support ALL students is completely up to me.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
13	For me to ensure that high quality instruction is provided in the general education classroom for ALL students is	☐ 1-Extremely difficult ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Extremely easy
14	The staff in my school are prepared to meet the needs of ALL students within their general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
15	High quality instruction can be provided in the general education classroom for ALL students.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
16	All teachers in my school are provided with appropriate professional development opportunities to improve their teaching practice.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree

17	One advantage of supporting a student with autism spectrum disorder (ASD) in a general education classroom within my school would be that special academic training for me is not necessary..	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
18	My school board's Superintendent believes that we should teach students with autism spectrum disorder (ASD) in general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
19	Parents of students with disabilities believe that we should teach students with autism spectrum disorder (ASD) in general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
20	Parents of non-disabled students believe that we should teach students with autism spectrum disorder (ASD) in general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree
21	My school's General classroom teachers believe that we should teach students with autism spectrum disorder (ASD) in general education classrooms.	☐ 1-Strongly Agree ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-Strongly Disagree