THE INTERSECTION OF DISABILITY, ACHIEVEMENT, AND EQUITY: A SYSTEM REVIEW OF SPECIAL EDUCATION IN THE TDSB

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The Intersection of Disability, Achievement, and Equity: A System Review of Special Education in the TDSB
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Medicalization of Ability

According to the Ministry of Education in Ontario, there are 12 medically based exceptionalities relating to intellectual, developmental, and emotional functioning for which students can be identified. However, many scholars and education advocates believe that using a medical or individual model to shape education-related praxis problematizes students and builds constructed divisions among the student population. Mitchell (2010) lists the following concerns: 1) the medical model places the focus and onus of student failure on an individual flaw or deficit; 2) the way in which the medical model leads to the identification and congregation of students according to a specific disability or exceptionality designation/classification wrongly assumes sameness within "diagnostic categories" (p. 24); 3) there is evidence that many students who hold special education status do not demonstrate any form of pathology; and 4) evidence shows that deficit-based instruction and curriculum are not successful strategies to ensure learning. Advocates for inclusion state that the identification of an exceptionality does not provide teachers and educators with strategies on how to accommodate students' needs or how to appropriately differentiate teaching styles or classroom environments (Porter, 2013).

Special education, particularly special education instruction that is taught in segregated classes, continues to be poorly valued within institutions of higher learning and many fields of employment. Established trends throughout the United States and recently in the Toronto District School Board (TDSB) (2010) find that there is a disproportionate representation of students in Special Education who are racialized or come from poverty. Minority students and students living in poverty are more likely to be identified and segregated from mainstream education than students from more privileged backgrounds (Ferri & Connor, 2006). The conflation of individual ability with historically marginalized characteristics such as race, poverty, class, etc. often legitimizes and normalizes the decision to place poor and racialized students within special education (Reid & Knight, 2006). The evidence and theorization around education and special education practices and outcomes points to hierarchical structures that socially reproduce experiences of advantage or disadvantage (Parekh, Killoran & Crawford, 2011).

Evolution of Models of Disability

Mitchell (2010) noted that the medical/individual model of disability is the most globally accepted paradigm applied to special education. However, Mitchell (2010) suggests that there are alternative paradigms to consider. Historically seen as an individual deficit, disability is now being conceived as a result of social and environmental factors. One of the more important changes is the differentiation between impairment and disability. Impairment refers to the biological condition of the person while disability denotes the structural barriers that 'disable' full social, economic, and political participation. This shift in perspective carries dramatic consequences in how impairment and disability are addressed within governing institutions. A

shift to a social model of disability would require greater attention be paid in assessing and addressing barriers embedded in social policy, practice, and attitudinal perspectives as opposed to individual deficits. The human rights model of disability could be interpreted as a progression of the social model emphasizing the importance of considering the 'social determinants of disability' (Rioux & Valentine, 2006) and upholding universal rights principles as an evaluative mechanism of equity.

OVERVIEW

Special Education Needs in the Toronto District School Board

Over the 2011-12 school year, 46,379 (18%) of the total Toronto District School Board population were students identified with Special Education Needs (SEN). Half of the students with SEN had been *formally* identified as having one of 12 Exceptionalities as outlined by Ontario's Ministry of Education. The remaining half of the SEN population were students who had *not been formally* identified, but had been placed on an Individual Education Plan (IEP).

Changes in Specific Exceptionalities, 2005-06 to 2010-11

The largest increase in terms of numbers was amongst students who only had an IEP (no formal identification). This subset of the SEN population rose from 17,807 to 23,731 with an increase of 5,924 students. Students identified as having a Gifted exceptionality demonstrated the largest increase from 3,689 to 5,980, or 2,291 more students. The next largest increase was Autism, which increased from 930 to 1,767 or 837 more students. There was a decline of 1,062 students identified with a Mild Intellectual Disability (MID) exceptionality.

Annual Changes in New Special Education Needs, 2010-11 to 2011-12

Between October 31, 2010 and October 31, 2011:

- 2,240 students were identified with an Exceptionality (excluding Gifted)
- 9,543 students were placed on an Individual Education Plan (IEP)
- 21 students lost an Exceptionality (excluding Gifted)
- 3,543 students lost their IEP

There were 9,543 students who received a new IEP status between October 31, 2010 and October 31, 2011. In general, new IEPs are generally developed within the early years of elementary school, in particular Grades 1-3. The vast majority (80%) of students who received a new exceptionality (excluding Gifted) had an IEP in place prior to their formal identification. The identification of exceptionalities (excluding Gifted) is an incremental process, and for the most part a second step after the development and implementation of an IEP.

Special Education Needs: Changes over Time, Grade 3 to Grade 10

Gifted Exceptionality: Once students had been identified as having a Gifted exceptionality, they generally kept the designation throughout their education tenure.

Learning Disability: The majority of students identified with a Learning Disability (LD) in Grade 6 did not have the designation in Grade 3. As of Grade 8, almost three quarters (72%) of students identified with an LD were placed in congregated Special Education classes while 25% received integrated programming along with students who had not been identified as having SEN. By Grade 9, this trend had reversed with most students identified with LD taking classes in the regular stream.

Mild Intellectual Disability: Most students identified with an MID exceptionality in Grade 6 had received this exceptionality by Grade 4, and almost all identified students (97%) still had an MID exceptionality in Grade 10.

Students who only have an IEP: By Grade 10, little over a third (36%) of students still had an IEP; more than a third (39%) had lost their Special Education Needs status altogether, while 20% had an exceptionality and were taking regular education classes.

Students with Special Education Needs in the 2006-11 Grade 9 Cohort

There were **18,265** students between 13 and 15 years of age starting secondary school in the TDSB on October 31, 2006. We looked at how these students were doing five years after they started. By this time, 1,900 students within this cohort group had left the TDSB. Reasons for "leaving" included moving to other boards, countries, education institutions, provinces, and private schools, or the students who were deceased. The final Grade 9 cohort analysis includes **16,365** students.

For our analysis on Special Education, we began looking at students within the Grade 9 cohort when they started Grade 7 in Fall of 2004. Data from that time is the earliest student-level information on Special Education Needs (SEN) that is available, and reflects decisions made regarding identification and placement up until the end of Grade 6. In Grade 7, 18.2% (2,532) of the cohort were students who had been identified with having SEN.

The greatest similarity uncovered in the data is between students who have only been assigned an IEP (no formal exceptionality) and students who had been formally identified as having LD exceptionality. Given that both groups cumulatively account for two thirds of students with SEN, we have opted to look at classroom placement in either Intensive Support Programs (ISP) (congregated/full-time Special Education Needs classes) or Home School Programs (HSP) (part-time Special Education classes).

In terms of student achievement, there was little noticeable difference between students who had an LD exceptionality in an ISP program and students who only had an IEP in an HSP program. The most marked differences in achievement were between students who were integrated into the regular classroom and students who were in congregated placements.

In terms of overall achievement and post-secondary outcomes, students identified as having a Gifted exceptionality have higher than average Grade 6 achievement and post-secondary outcomes. Conversely, students identified as having other exceptionalities (excluding Gifted) have much lower Grade 6 achievement and post-secondary outcomes.

Gender: In all subgroups, the proportion of female students with Special Education Needs is much lower than males.

Racial Groups: The proportion of students with and without Special Education Needs varies widely according to self-identified race: for example, 10% of East Asian students had been identified with SEN compared to 29% of Black students. International literature indicates that the proportion of impairment within a racial group should mirror the overall representation within the population (Mitchell, 2010).

Languages: The distribution of SEN categories according to key TDSB languages (any language with 100 or more students in the cohort) was examined. As with race,there is a wide variation of SEN categories. In particular, students speaking Arabic, only English, Spanish, and Somali have higher proportions of SEN identifications.

Changes in Time – Special Education and Regular Classes: While nearly all students with a Gifted exceptionality and 82% of students without SEN were taking Academic courses in Grade 9 , only 40% of students identified with SEN (excluding Gifted) who were in regular education placements, and only 11% of students in congregated placements took Academic courses. Outside of moving to regular education settings in secondary school, there was little change in students' SEN status between Grade 7 and the end of secondary school.

There is also a strong relationship between Special Education Needs' setting and socio-economic factors. Students with a Gifted exceptionality are more likely to come from backgrounds of greater privilege compared to students without SEN. In comparison, of students with SEN (excluding Gifted), those in regular education settings faced greater socio-economic challenges than the overall TDSB population, and students placed in congregated settings demonstrated the greatest socio-economic challenges.

Overview of Suspension Data: Suspensions in the 2006-11 Grade 9 Cohort

Number of Suspensions

In total, 3,628 students (or 22%) out of the cohort sample of 16,365 had been suspended at least once between September 2002 and October 2011:

- 1,700 or 47% were suspended once;
- 673 or 19% were suspended twice;
- 356 or 10% were suspended three times;
- 381 or 11% were suspended four or five times;
- and 581 or 16% were suspended six or more times.

Relationship of Being Suspended to Achievement

Despite the comparatively few numbers of suspensions and of days suspended over the students' elementary and secondary school careers, the relationship of achievement and cumulative suspensions is very strong, as seen in Table 18. The cumulative suspension rate of students who achieved below Level 1 in the Grade 6 Education Quality and Accountability Office (EQAO) assessments was 38% compared to 7% of students who achieved at Level 4. The suspension rate of students taking a majority of their courses in the Locally Developed (Essentials) Program of Study was 50%, the rate of students taking Applied courses was 41%, and the rate of students taking Academic courses was 15%. Students who dropped out had a 49% suspension rate, compared to a rate of 15% for graduates. Students who did not apply to post-secondary had a suspension rate of 44%. However, students who confirmed an offer of admission to university had a notably reduced rate of suspension at 9%.

Special Education Needs: In looking at Grade 7 Special Education Needs (SEN) status, students without SEN had a suspension rate of 20% and students identified as Gifted had a suspension rate of 13%. In comparison, the suspension rate was 42% for students with an LD exceptionality, 42% for students with MID, 45% for students with other exceptionalities (including Behavioral), and 42% for students with an IEP. Note that the majority of students with SEN were not suspended, and most students who were suspended did not have SEN. However, there is a strong connection.

Exploring the relationship between other demographic characteristics and suspensions revealed extremely strong correlations. For more information on the relationships between race, parental occupation, parental status, parental education, neighborhood income, gender, and student language please refer to Table 19.

A Combined At-Risk Variable

Given the strong relationship of SEN to both low academic achievement (as defined by students below Levels 3 and 4 in the Grade 6 Education Quality and Accountability Office (EQAO) assessments) and suspensions (students suspended at least once from the beginning of Grade 5), a variable was developed that would examine all three at-risk components.

In total, 51% of students in the cohort did not demonstrate any of the at-risk features and 49% did. The differences between socio-economic (SES) and demographic subgroups seen with students who had low-achievement, students who were suspended, and students who had SEN tended to be magnified when the three at-risk factors was combined. There was a 17% gender gap, with 57% of males and 40% of females having at least one at-risk characteristic. In a similar pattern, it was revealed that 29% of self-identified East Asian, 45% of self-identified South Asian, 43% of self-identified White, and 74% of self-identified Black students had at least one 'at-risk' characteristic. The range of students by language starts from 31% of students speaking Chinese, to 68% of students speaking Spanish, and 74% of students speaking Somali.

The three at-risk characteristics (SEN, suspensions, and low EQAO) are very highly correlated to themselves, meaning once a student presents with one risk factor, they appear to be highly susceptible to acquiring another.

Systematic Evidence Review

In light of its pursuit to address the needs of historically marginalized groups, the TDSB made a commitment towards greater inclusion of students identified with Special Education Needs. In order to facilitate this process, the TDSB's Research department has conducted a systematic evidence review of literature looking specifically for studies that address barriers to and successful initiatives supporting inclusion. A systematic evidence review results in an objective scan of international literature exploring emerging themes in special and inclusive education. The systematic evidence review was conducted with stringent guidelines regarding the extraction and inclusion of education-based studies. The driving question behind the review was "What enables or disables inclusion of students with SEN in schools?" Thematic results indicated that three areas have been explored: 1) the role of teachers, 2) the outcomes of segregated vs. inclusive classroom placement, 3) procedures involved in the identification of students.

Overall, results from the systematic evidence review support an inclusive model of education for students with SEN. Outcomes resulted in positive economic security for included students with SEN. Also, results did not reveal any negative outcomes for students without SEN taught within inclusive environments. Teachers are generally supportive of inclusion and results demonstrated that with support, training and knowledge, teachers feel more confident in tackling the inclusive classroom. New approaches to identification could also support the move towards an inclusive model of education where greater numbers of students are accommodated in their home schools and classrooms. In light of the absence of positive

outcomes reported for segregated programming, the results of this review should be considered in the development and evaluation of policy concerning placement and identification of students in the TDSB.

CONCLUSION

The TDSB has recently identified the inclusion of students with Special Education Needs as a critical piece in addressing issues of equity and in fostering positive learning opportunities for all students. The TDSB's 2012-13 Board Improvement Plan incorporates transition planning for students with SEN as well as goals to increase engagement levels for those students, both within the school and throughout the Special Education process. In addition, the Teaching and Learning as well as the Special Education departments are keen to establish reviews regarding the impact of systemic bias and streaming. The TDSB is committed to addressing inequities across student demographics within Special Education. A shift towards a social model of disability includes greater attention to processes in which disparities occur, and will help to identify opportunities that educators can use to bring about greater equity for all students. Areas that may potentially present as barriers to student success and which require further examination are: programmatic structures (congregated and integrated settings); referral, identification and placement processes; culturally and socio-demographically sensitive approaches to student learning.

INTRODUCTION

As greater discussion around inclusion takes place within the public discourse, there has been increased attention on Special Education practices and policies. Variations within education structure and programming have demonstrated to be highly correlated to future academic and economic outcomes (such as post-secondary access and economic independence). Based on its impact on student outcomes, parents, students, educators, and stakeholders are requesting greater transparency into the decisions made concerning Special Education identification, programming, and placements. Every student requires support to successfully navigate through the public education system. For students who encounter greater barriers, specialized services and programming may be essential to meeting their academic and social needs.

Historically, Special Education has largely been responsible for addressing the needs of students identified with medically defined impairments (intellectual, physical, etc.). This report provides a historical analysis of Special Education and discusses the evolution of thinking around identification, rehabilitation, and intervention. As our understanding of disability evolves, so has the scope and reach of Special Education. Current scholars in disability studies call for a distinction to be made between the terms 'impairment' and 'disability' as part of positioning disability as a social construction (Shakespeare, 2006). Within the social model of disability, 'impairment' denotes the loss of function relating to the physical, intellectual, or emotional self, whereas 'disability' describes the barriers that people face as they negotiate the various spheres of society (e.g., accessibility issues, discrimination, etc.). In accordance to the Ontario Ministry of Education, the reach of Special Education is not limited to only serving students who have a formal identification of impairment (Memorandum, Barry Finlay to Directors of Ontario, "Categories of Exceptionalities", December 19, 2011). In fact, the Toronto District School Board (TDSB) has already made a commitment to moving towards a social model of disability that promotes greater inclusion of students identified with Special Education Needs within mainstream education programs and the school community (TDSB's Futures Conference, Director's Keynote, May 2012).

There is no question that accommodations, supports, and services are critical aspects to student success; however, greater attention needs to be paid to the processes in which supports and services are delivered to students. Exploring the demographics of students identified as having Special Education Needs reveals the complexities around the assessment, identification, and accommodation of students. One key aspect of this report is an analysis of demographic differences within Special Education. The hope is that greater deconstruction of the demography of Special Education will function as a baseline for educators to explore further opportunities to address issues of equity.

Other aspects explored throughout this report include an overview of Special Education in the TDSB as well as an analysis of Special Education trajectories examining the data from Grade 3 to when students take the Ontario Secondary School Literacy Test. Findings from the Grade 9 cohort will also be presented, specifically deconstructing student demographics and relevant

variables relating to Special Education. This report includes preliminary findings on a new direction of Special Education analysis – the correlation between Special Education and student suspension. Furthering this analysis on suspension data, a new framework of analysis was created based on risk factors that demonstrates the co-morbidity and intersections of 'at-risk' factors relating to Special Education, academic failure, and suspension. The 'at-risk' analysis highlights areas for increased awareness and acute intervention.

To conclude this report, a systematic review of international literature on Special Education research is provided exploring three critical aspects of Special Education practice and inclusion: the role of teachers, classroom placement and organization, and identification processes. The systematic review of literature outlines conclusive findings regarding strategies to support students identified with Special Education needs.

THE MEDICAL/INDIVIDUAL MODEL AND THE SHAPING OF THE CURRENT EDUCATION AND SPECIAL EDUCATION PRACTICES

Reflecting on the historical development of special education, Mitchell (2010) writes that "[u]ntil recently, special education has been dominated by a psycho-medical model paradigm, which focuses on the assumption that deficits are located within individual students (Clark et al., 1995)" (p. 24). He further adds, citing Ackerman et al. (2000), that "in this model students receive a medical diagnosis based on their psychological and/or physical impairments across selected domains and both strengths and weakness are identified for education and training. Those with similar diagnoses and functional levels are grouped together for instructional purposes" (Mitchell, 2010, p. 24).

For many scholars, using the medical model to shape education policies and practices problematizes students and builds constructed divisions among the student body. Mitchell (2010) lists the following concerns: 1) the medical model places the focus and onus of student failure on an individual flaw or deficit; 2) the way in which the medical model identifies and congregates students according to a specific disability or exceptionality designation/ classification wrongly assumes sameness within "diagnostic categories" (p. 24); 3) there is evidence that many students that hold special education status do not demonstrate any form of pathology; and 4) evidence shows that deficit-based instruction and curriculum are not successful strategies to ensure learning.

Employing a medical model of disability, the Ministry of Ontario uses 12 exceptionality classifications in which students, once identified through formal medical, psychological, or educational assessments, can be designated (Ministry of Education [MOE], 2001). The list includes: Behaviour, Autism, Deaf or Hard of Hearing, Language Impairment, Speech Impairment, Learning Disability, Giftedness, Mild Intellectual Disability, Developmental Disability, Physical Disability, Blind or Low Vision, Multiple Exceptionalities (MOE, 2001). Each student with an identified exceptionality receives an Individual Education Plan (IEP) outlining

the interventions and individualized services the student will receive. Over the 1999-2000 school year, 96,467 students held a special education needs status across Ontario, 17,017 of whom were being taught in congregated (segregated) special education classes (Organisation for Economic Co-operation and Development [OECD], 2003). In addition to congregated learning, exceptionality labels are often irrevocable (Burkhauser & Daly, 2009; Reid & Knight, 2006).

Principals have the discretion to prepare an IEP for students who do not have an exceptionality but are receiving Special Education programming (MOE, 2004). The Individual Education Plan, rather than the Identification, Placement and Review (IPRC) process has become the underlying means through which Special Education is administered. In both Ontario and the Toronto District School Board (TDSB), students with an IEP who do not have an exceptionality comprise the largest category of Special Education Needs students (Auditor General of Ontario, 2008). In the TDSB, students who only have an IEP are the majority of students with Special Education Needs (excluding Gifted). Furthermore, the majority of students, initially identified with an exceptionality, had an IEP, and the identification of an exceptionality was often a second, supplementary step.

In Ontario, Bill 82, established within the Education Act of 1980, insisted that all students with identified exceptionalities receive appropriate accommodation within the public school system (MOE, 2012). In 2005, the Ministry of Education released the document *Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6.* This document, along with its 2006 successor *Special Education Transformation: The Report of the Co-Chairs with Recommendations of the Working Table on Special Education* insisted on approaching special education through differentiated instruction and universal design (Bennett, 2009). However, in a recent report released from the Toronto District School Board, up to 87% of students with an identified exceptionality in elementary school continue to be educated in congregated (segregated) Special Education classes (Brown & Parekh, 2010).

Historical and social scientific study of the past few decades has challenged the theories behind segregated education for students perceived as impaired. Critics have pointed to disadvantages for minority and lower-income students leading to over-representations of both within lower streamed and special education classes (for discussion of the US, Toronto, Ontario, and British Columbia, see Ellis, 2011; Clarke, 2004, 2005). Likewise, Ellis (2011) in his examination of the Toronto Board's historical records found clear race, socio-economic, and gender patterns in Special Education. Special Education classes were rarely located in affluent neighourhoods, students from non-Anglo-Saxon ethnicities and working-class families were over-represented, and the gender distribution of Special Education classes was similar to that of today (i.e., a disproportionally high number of males).

The medicalized structure of special education often requires multiple forms of assessment to occur prior to placement in a congregated special education class or receipt of support services.

Based upon constructed normative measures reflecting White, middle-class, and able bodied/minded ideals, deviation from these standards can lead educationalists and other professionals to perceive or misinterpret such deviance as disordered (Ishil-Jordan, 1997; O'Connor & Fernandez, 2006; Reid & Knight, 2006). However, through studies examining demographic trends within the special education population, it has become disturbingly apparent that there is often an over-representation of minority students as well as students living in poverty (Brown & Parekh, 2010; De Valenzuela, Copeland, Huaqing & Park, 2006; Oswald, Coutinho & Best, 2002; Skiba, Poloni-Staudinger, Gallini, Simmons & Feggins-Azziz, 2006). In agreement with Baker (2002), Reid and Knight (2006) write, "[b]ecause most people in contemporary society perceive students with impairments as qualitatively distinct…referral, diagnosis, labeling, sorting, and remediating – appears objective, fair, and benevolent…One result of perceiving "different" others through this technical-rational lens (i.e., as defective is that it seems natural…that students of color, the poor, and immigrants lie outside the predominant norm and, therefore, belong in *special* education" (p. 19). Reid and Knight (2006) demonstrate the conflation between difference and ability as well as how the identification of any difference outside the norm can be conflated with ability.

Interestingly, the medical model and scientific assessment suggests a certain rigorous and measurable approach to ability. However, there are exceptionality designations that are largely based upon teacher perception. These classifications have been dubbed high incidence "judgment" categories (Artiles et al., 2010) and are most often associated with negative social connotations. Behaviour disorders, mild intellectual disability, and language impairments are exceptionalities in which teacher perception can greatly influence identification. They are also categories in which minority students and students living in poverty are often over-represented (Brown & Parekh, 2010; De Valenzuela et al., 2006; Reid & Knight, 2006; Skiba et al., 2006). In contrast, exceptionality categories that are associated with more socially valued characteristics, such as brilliance, as represented within the Gifted and Autism spectrum disorders, are often over-represented by White, male, and upper-middle class students (Brown & Parekh, 2010; De Valenzuela et al., 2006).

EVOLVING MODELS OF DISABILITY

The ways in which public and social policy addresses impairment is largely dependent upon which paradigm of disability is employed. The three paradigms explored in this review are the medical model, the social model, and the human rights model of disability. The evolution between models will also be reviewed. In terms of special education, Mitchell (2010) noted that the medical model is currently the most globally accepted paradigm. Despite its prevalence, many scholars suggest that there are alternative paradigms to consider. Historically seen as an individual deficit, disability is now being conceived as a result of social and environmental factors. One of the more important changes is the differentiation between impairment and disability. *Impairment* refers to the biological condition affecting function, while *disability* denotes the structural barriers that 'disable' full social, economic, and political participation (Shakespeare, 2006). This shift in perspective carries dramatic consequences in how

impairment and disability are addressed within governing institutions. A shift to a social model of disability would require greater attention be paid in assessing and addressing barriers embedded in social policy, practice, and attitudinal perspectives as opposed to individual deficits.

INDIVIDUAL DEFICIT/MEDICAL MODEL OF DISABILITY

The medical model of disability is often used synonymously with the individual deficit model. These would include the near global shift from feudalist to capitalist political economic models (Abberley, 1987; Finkelstein, 1980; Gleeson, 1999; Oliver, 1990), the advancement of biomedicine (Samson, 1999; Stiker, 1997; Szasz, 2010), the rise of the professional (Foucault, 1988; French & Swain, 2001; Goffman, 1991; Parens, 2006; Starr, 1982), and the growing prevalence of sociological theories around social coherence and social structure (Somers, 2008; Thomas, 2007).

The Advent of Capitalism as a Contributing Factor to the Individual Model

Finkelstein (1980) was among the first theorists to connect the construction of disability and disablement to shifting modes of production (Parekh, 2012). Following the theoretical direction outlined by Finkelstein (1980), Oliver (1990) re-iterated the causal links between the development of capitalism and the increased focus on the individual and their ability to perform labour. The increasingly competitive market, along with the subsequent normalization of heightened standards of ability, aligned with the demands of material production were exclusionary to people with impairments and led to economic and social disablement (Oliver, 1990).

Advances in Bio-Medicine

The ability to systematically locate disease and dysfunction within the body or mind satisfied the new philosophical direction that aligned with the rational objectification of the natural world. The aim of biomedicine was to advance new ways of identifying illness and injury while developing interventions and remedies for sickness and impairment (Samson, 1999). However, throughout this idyllic pursuit of optimal well-being, new normative standards of health and functionality were established. Measures and assessments intended to identify impairment expanded beyond the body to incorporate evaluations of intellectual and psychological functioning (Gould, 1996; Szasz, 2010).

The Rise of the Professional

The sustainability of a capitalist society rested on the productive capabilities of its members and the reduction of state funded supports. Coupled with the increasing precision and complexity around organic systems of the human body, as well as the growing need of the state to selectively distribute care, the role of determining who was capable of labour and who was eligible for support was often assigned to the medical practitioner (Starr, 1982). Once

recognized as holding expertise on identifying deviance and developing interventions, medical expertise expanded beyond the body to include knowledge on cognition and intellect (Gould, 1996) as well as emotional and psychical states (Szasz, 2010).

Theories of Social Cohesion and Social Structure

Increasing industrialization and advances in capitalism provided the foundation for the development of structural-functional theories of society, highlighting the roles and interrelationships of various social groups (Thomas, 2007; Bourgeault, 2006). According to Thomas' (2007) interpretation of Parsons' 1951 social theory, only healthy and 'normal' people could participate in sustaining "the economy, family life and other core fibres of the social organism" (Thomas, 2007, p. 17). It is precisely the individual role defined by new modes of labour that places people with impairments at a disadvantage. To maintain a functioning capitalist society, the expectation is that individuals will fully participate in the economy. In essence, the current modes of production dictate the severity of impairment and define subsequent incapacity (Barnes, Mercer & Shakespeare, 1999). Despite the establishment of impairment and perceived incapacity through economic and social structures, the medical/individual model of disability continues to problematize the individual, and address social and economic disablement through therapeutic and rehabilitative practices.

Within the medical model of disability, incapacity is addressed through "curative and rehabilitative" (Barnes, Mercer & Shakespeare, 1999, p. 21) practices, overseen by professionals with the goal of social re-integration (Oliver, 1990). The focus on rehabilitation as a sole pathway to social inclusion and participation, situates "health practitioners, psychologists and educationalists" (Barnes, Mercer & Shakespeare, 1999, p. 21) as experts in not only curing the 'faulty' body or mind, but as those responsible for securing the cohesiveness of society as a whole.

THE EMERGENCE OF THE SOCIAL MODEL OF DISABILITY

In the 1970s, disability discourse took a significant turn. Groups such as the Union of the Physically Impaired Against Segregation (UPIAS) began discussing disability as socially produced (Oliver, 1990; Barnes, Mercer & Shakespeare, 1999). The distinction made between impairment and disability opened up a new discussion around how disability could be conceived. According to Tremain (2006), "the term "impairment" is generally taken to refer to an objective, transhistorical and transcultural entity of which modern bio-medicine has acquired knowledge and understanding and which it can accurately represent" (p. 185). Disability, in contrast, is defined by disability scholars as "[t]he disadvantage or restriction of activity caused by a contemporary social organization which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities" (UPIAS, 1976: 3-4, as cited in Barnes, Mercer & Shakespeare, 1999, p. 28). As Shakespeare (2006) writes, "Impairment is distinguished from disability. The former is individual and private, the latter is structural and public" (p. 198). It was the creation of the impairment/disability

dichotomy that founded the social model of disability.

The social model works to shift the focus away from the body and onto the social structures and policies that 'disable' people perceived as impaired. For example, instead of focusing on a person's inability to walk, the focal point of change should be the inaccessible stairs. If a child is not achieving in school, attention should be paid to the pedagogical approach and the accessibility of the classroom environment and curriculum, as opposed to the child's intellectual functioning. The social model aims to address and identify "the extent of social exclusion and disadvantages facing disabled people, and across different social contexts, as well as the impact of shifts in disability policy towards social barriers" (Barnes & Mercer, 2010, p. 33).

In his chapter entitled, 'The Social Model of Disability', Shakespeare (2006) outlined three dichotomies that defined the social model. The first dichotomy, as mentioned, stated that "[i]mpairment is distinguished from disability" (Shakespeare, 2006, p. 198). The second dichotomy is that "[t]he social model is distinguished from the medical or individual model" (Shakespeare, 2006, p. 198). The social model identifies sources of disablement within society and supports initiatives such as "barrier removal, anti-discrimination legislation, independent living and other responses to social oppression" (Shakespeare, 2006, p. 199). The third dichotomy is that "[d]isabled people are distinguished from non-disabled people" as an oppressed group deserving of specific civil rights to ensure equity (Shakespeare, 2006, p. 199). Since its inception, the social model has been used to assess and target barriers and exclusion within many social structures such as inaccessible employment, education, social services, transportation, built environments, political participation, and housing (Barnes & Mercer, 2010).

THE HUMAN RIGHTS MODEL OF DISABILITY

The human rights model of disability could be interpreted as a progression of the social model emphasizing the importance of considering the 'social determinants of disability' (Rioux & Valentine, 2006). The human rights approach to disability addressed the marginalization of people with disabilities through "the reformulation of social and political policy…recognizing the condition of disability as inherent to society" (Rioux & Valentine, 2006, p. 116). Within this construct, barriers to inclusion and equal economic, political, and social outcomes were addressed through the establishment and enactment of laws and policies (Rioux & Valentine, 2006). Formalized obligations to provide supports and accommodations were what made the human rights model distinct from the social model of disability. Rioux and Valentine (2006) write, "[t]he human rights approach to disability is that it is a consequence of how society is organized and the relationship of the individual to society at large" (p. 120). Equality of outcome and well-being, supported by formalized obligatory and protection-oriented legislation, was the foundation of the rights approach to disability.

Upon the establishment of the Convention on the Rights for Persons with Disabilities (CRPD) (UN, 2006), new hope for people with disabilities emerged. The potential of advancing a model of disability that could now be justifiable according to international principles was heralded as a significant victory (Kayess, 2008). However, according to Kayess (2008) furthering social justice requires greater theoretical understanding of the complexity of disability, and may only be possible if the "CRPD interpretation and implementation efforts penetrate beyond populist social model ideas to a more sophisticated understanding of impairment and disability in its social context" (p. 34).
In terms of current human rights principles, the CRPD stresses the importance of inclusive education in Article 24 states:

"Parties shall ensure that:

a. Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability;
b. Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live;
c. Reasonable accommodation of the individual's requirements is provided;
d. Persons with disabilities receive the support required, within the general education system, to facilitate their effective education;
e. Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion." (UN, 2006, article 24)

Having both signed and ratified the CRPD (UNenable, current website), Canada has affirmed its pledge to uphold a universal standard of human rights principles relating to persons with disabilities.

OVERVIEW OF THE TORONTO DISTRICT SCHOOL BOARD'S SPECIAL EDUCATION NEEDS, 2010-11 AND 2011-12

Special Education Needs in the Toronto District School Board

Over the 2011-12 school year, 46,379 (18%) of the total TDSB population were students identified with Special Education Needs (SEN). Half of the students with Special Education Needs had been *formally* identified as having one of 12 Exceptionalities as outlined by Ontario's Ministry of Education. The remaining half of the Special Education Needs population represented students who had *not been formally* identified, though had been placed on an Individual Education Plan (IEP).

The Special Education Needs population was further broken down as follows:

- 3,725 students (1.4% of all TDSB students) had been formally identified through the Identification, Placement and Review Committee (IPRC) as Gifted and were taking over 50% of their courses or classes within congregated Special Education Classes.
- 2,244 students (0.9% of all TDSB students) were formally identified as Gifted and were enrolled in mainstream classes for the majority of the time.
- 9,495 students (3.7% of all TDSB students) had been formally identified with one of the 11 Exceptionalities (not including Gifted) and were spending 50% or more of their class time in congregated Special Education classes
- 7,184 students (2.8% of all TDSB students) were formally identified with one of the 11 Exceptionalities (not including Gifted) and were enrolled in mainstream classes for the majority of the time.
- 23,731 students (9.2% of all TDSB students) had an IEP without being formally identified with an exceptionality through the IPRC process.
- 212,213 (82.1% of all TDSB students) of the TDSB population were students who had not been identified with Special Education Needs.

Changes in Special Education Needs Patterns, 2005-6 to 2011-12

Table 1 shows changes over seven years, between 2005-06 and 2011-12. Although enrolment declined by 15,460 students, the number of students with Special Education Needs (SEN) increased by 8,532 students increasing the proportion of students with SEN by 4%.

Table 1: Special Education Needs, 2005-06 and 2011-12

	2005-06		2011-12	
	Frequency	**Percent**	**Frequency**	**Percent**
GIFTED: Special Education Classes	2,652	1.0%	3,725	1.4%
GIFTED: Regular Classes	1,037	0.4%	2,244	0.9%
Exceptionalities without Gifted: Special Education Classes	9,826	3.6%	9,495	3.7%
Exceptionalities without Gifted: Regular Classes	6,525	2.4%	7,184	2.8%
IEP Only	17,807	6.5%	23,731	9.2%
Students Without Special Education Needs	236,205	86.2%	212,213	82.1%
Total	**274,052**	**100%**	**258,592**	**100%**

Changes in Specific Exceptionalities, 2005-06 to 2011-12

As seen in Table 2 the largest increase in terms of numbers was amongst students who only had an IEP (no formal identification). This subset of the SEN population rose from 17,807 to 23,731 with an increase of 5,924 students.

Students identified as having a Gifted exceptionality demonstrated the largest increase from 3,689 to 5,969 or 2,280 more students. The next largest increase was Autism, which went up from 930 to 1,758 or 828 more students. There was a decline of 1,081 students with a MID exceptionality.

Table 2: Change in Specific Exceptionalities, 2005-06 to 2011-12

	N (2005-06)	N (2011-12)	% of All Exceptionalities (2005-06)	% of All Exceptionalities (2011-12)	% Change of All Exceptionalities	Change in Numbers
Learning Disability	8,436	9,128	42.1%	40.3%	-1.8%	692
Giftedness	3,689	5,969	18.4%	26.4%	7.9%	2,280
Mild Intellectual Disability	3,674	2,593	18.3%	11.4%	-6.9%	-1,081
Behavioural	1,020	1,080	5.1%	4.8%	-0.3%	60
Autism	930	1,758	4.6%	7.8%	3.1%	828
Developmental Disability	1,075	1,065	5.4%	4.7%	-0.7%	-10
Physical Disability	375	449	1.9%	2.0%	0.1%	74
Language Impairment	368	247	1.8%	1.1%	-0.7%	-121
Deaf and Hard of Hearing	349	277	1.7%	1.2%	-0.5%	-72
Other	124	82	0.6%	0.4%	-0.3%	-42
Total Exceptionalities	**20,040**	**22,648**	**100.0%**	**100.0%**		**2,608**
IEP only	**17,807**	**23,731**				**5,924**

Annual Changes in New Special Education Needs, 2010-11 to 2011-12

Between October 31, 2010 and October 31, 2011:

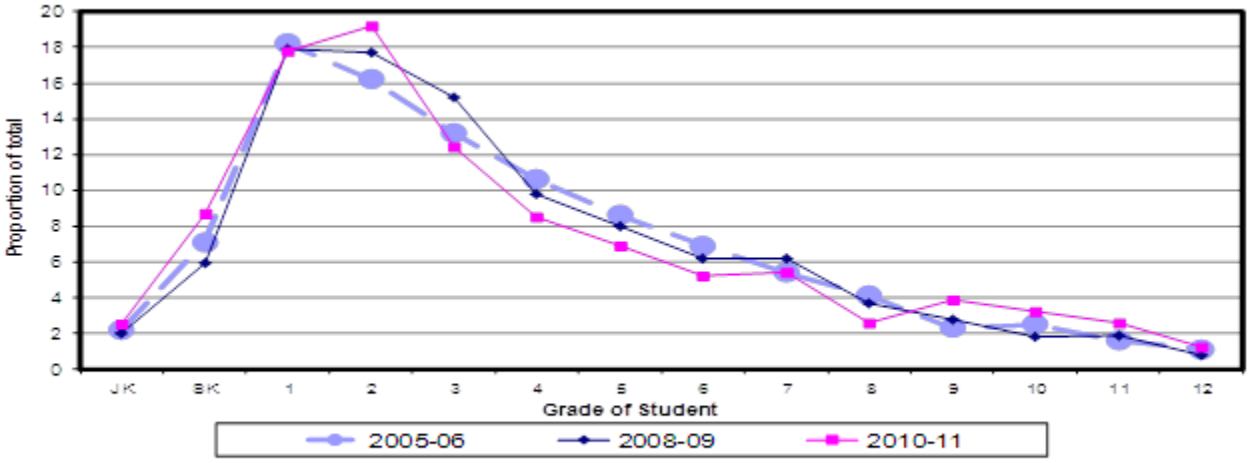
- 2,240 students were identified with an Exceptionality (excluding Gifted)
- 9,543 students were placed on an IEP
- 21 students lost an Exceptionality (excluding Gifted)
- 3,543 students lost their IEP

This numerical breakdown only includes students present in the TDSB as of October 31, 2011, and excludes the 4,724 students who left the TDSB over the year by graduating, transferring, or dropping out.

Students Who Received a New Individual Education Plan

There were 9,543 students who received a new IEP status between October 31, 2010 and October 31, 2011. This is more than double the baseline number of students (4,564) with a new IEP in the 2005-06 school year. Figure 1 shows the pattern according to grade for 2005-06, 2008-09, and 2010-11. As seen, the patterns by grade have been consistent. In general, new IEPs are developed within the early years of elementary school, in particular Grades 1-3. The proportion of students who receive an IEP within early elementary school has been increasing slightly: as of the 2005-06 school year, 57% of students who received an IEP were in Junior Kindergarten (JK) to Grade 3, while this proportion increased to 61% as of the 2010-11 school year.

Figure 1: New IEPs by Grade
2005-06, 2008-09, and 2010-11

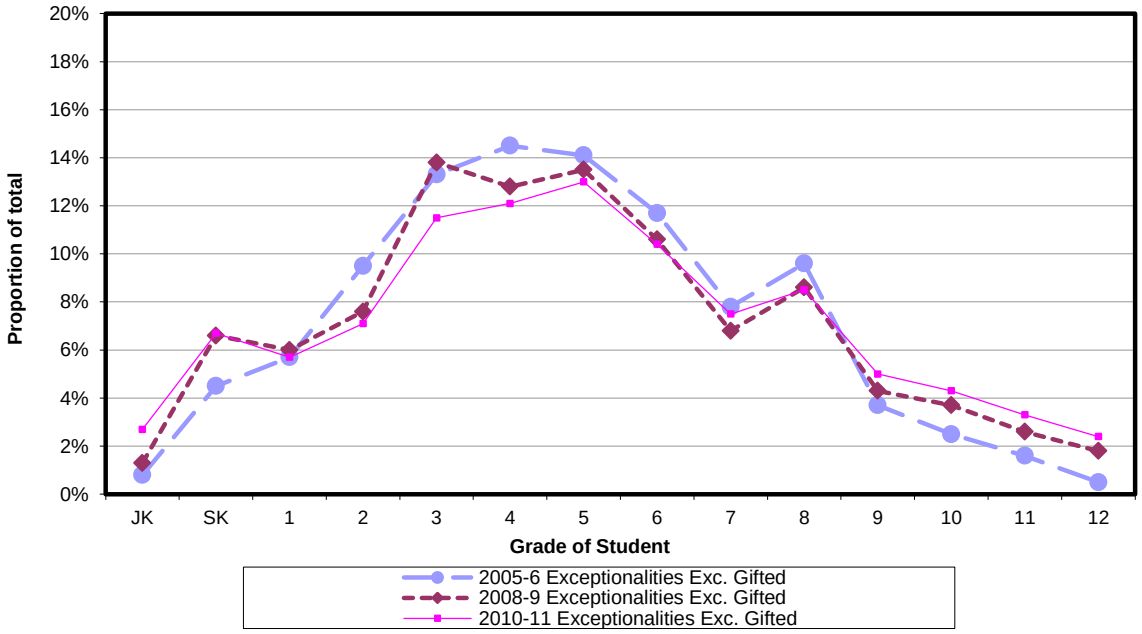


Students Receiving an Exceptionality (excluding Gifted) between 2005-06 and 2010-11

Figure 2 looks at the grade of the 2, 240 students who did not have an exceptionality (excluding Gifted) as of October 31, 2010, but who had received an exceptionality over the year. The proportion of students receiving their exceptionality over Grades 3 to 6 has declined somewhat from 54% in 2005-06 to 47% in 2010-11.

The number of students with a new exceptionality declined by 9% in 2010-11 from 2005-06. Students identified with an exceptionality (excluding Gifted) dropped from 2,615 to 2,240 students and with a Gifted exceptionality from 984 in 2005-06 to 917 students in 2010-11. During the 2010-11 school year, the vast majority of students (80%) who received a new exceptionality (excluding Gifted) had an IEP in place prior to their formal identification.

Figure 2: New Exceptionalities (excluding Gifted) by Grade
2005-06, 2008-09, 2010-11



Students Losing Special Education Needs Status

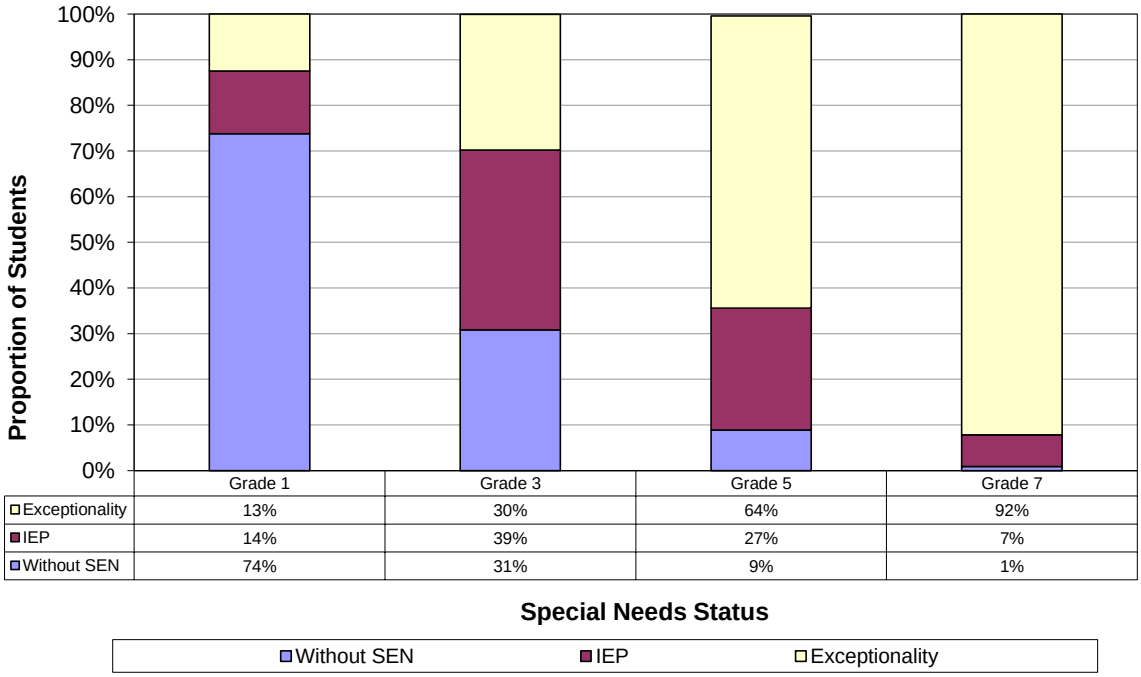
There were records of only 21 students losing exceptionality status over the year. Given the usual error rate, the incidence of students losing their exceptionalities while still in the TDSB can be described as nil. However, 3,543 students identified with an SEN, who did not have a formal identification, lost their IEP, over the year. The majority of students who lost their IEP were largely in the secondary school panel.

Exceptionalities (excluding Gifted) on October 31, 2011: Their Status in Previous Years

Earlier, 'new' exceptionalities (excluding Gifted) were examined over the 2010-11 and 2011-12 school years, and found that most students were placed on an IEP a year or years before a formal identification of an exceptionality. Students in Grade 8 (October 31, 2011) with exceptionalities (excluding Gifted) were examined and their evolving SEN status over Grade 1, Grade 3, Grade 5, and Grade 7 was reviewed. Results are seen in Figure 3. As of Grade 1, less than a fifth of students had an exceptionality and most did not have any SEN status. As of Grade 3, under a third had a formally identified exceptionality, over a third had only an IEP, and under a third had no SEN status. By Grade 7, nearly all had a formally identified exceptionality.

Thus, the identification of exceptionalities (excluding Gifted) is an incremental process, and for the most part a second step after the development and implementation of an IEP. By the end of Grade 8, the process is generally complete.

Figure 3: Grade 8 Exceptionalities (excluding Gifted) October 31, 2011
Grades 1, 3, 5, and 7 Status



	Grade 1	Grade 3	Grade 5	Grade 7
Exceptionality	13%	30%	64%	92%
IEP	14%	39%	27%	7%
Without SEN	74%	31%	9%	1%

SPECIAL EDUCATION NEEDS OVER TIME: THE GRADE 10 ONTARIO SECONDARY SCHOOL LITERACY TEST AND SPECIAL EDUCATION NEEDS FROM GRADE 3 TO GRADE 10

According to Education Quality and Accountability Office (EQAO) records, there were 18,538 students in the Toronto District School Board (TDSB) who were 'first-time eligible' to write the Ontario Secondary School Literacy Test (OSSLT or Literacy Test). First-time eligible means that students were in their second year of high school and eligible to write the Grade 10 Literacy Test as of April 2012. Previous research has documented that TDSB students who pass the OSSLT the first time are much more likely to graduate and go onto university than students who do not pass the OSSLT as first-time eligible students (e.g., Brown, 2006; Wiggers, Brown & Maldonado, 2012). Therefore, it was decided to examine the relationship of Special Education Needs (SEN) to OSSLT achievement.

Because students' SEN status (in particular, IEP status) changes so much over time, the SEN status of the student as of Grade 6 was examined.

Changes of SEN status over time were also examined and therefore students who had been present in the TDSB continuously since the beginning of Grade 3 (Fall 2004) until the student wrote the OSSLT in April 2012 were included. In total, there were 11,774 students continuously present in the TDSB between Grade 3 and the writing of the OSSLT at the end of Grade 10. Of the students who wrote the OSSLT, 64% were in the TDSB at the start of Grade 3, while 36% entered the TDSB after Grade 3 began.

ONTARIO SECONDARY SCHOOL LITERACY TEST RESULTS

The 11,774 students were categorized according to key Special Education identifications:

- 451 (or 3.8%) were students identified with a Gifted exceptionality as of Grade 6;
- 8,984 (or 76.3%) were students who had not been identified with any Special Education Needs;
- 606 (or 5.1%) were students identified with a Learning Disability (LD) exceptionality;
- 160 (or 1.4%) were students identified with a Mild Intellectual Disability (MID) exceptionality;
- 232 (or 2%) were students identified as having any of the other nine Ministry exceptionality categories, including Autism and Behavior (all had less than 100 students per exceptionality and hence were collapsed into one 'other' category);
- 1,341 of students (or 11.4%) had an Individual Education Plan without a formal exceptionality.

Results are seen in Table 3. Overall, 79% of students who were first-time eligible passed the OSSLT the first time it was offered. Nearly all (98%) of the students with a Gifted exceptionality passed the Literacy Test, while the rate of those students without Special Education Needs was 88%. Results for students with SEN (excluding Gifted) were much lower. The overall pass rate was 43% for students with SEN (excluding Gifted).

Table 3: SEN Status in Grade 6 (Fall 2007) and OSSLT Success Rate (April 2012)

SEN Status in Grade 6	OSSLT Successful	Number of Students in the Cohort	% of Students in the Cohort
Gifted Exceptionality	97.8%	451	3.8%
Without SEN	88.0%	8,984	76.3%
LD Exceptionality	45.5%	606	5.1%
MID Exceptionality	5.6%	160	1.4%
Other Exceptionalities	27.7%	232	2.0%
IEP Only	49.0%	1,341	11.4%
Total Grade 3 to OSSLT	79.4%	11,774	100.0%

SPECIAL EDUCATION NEEDS: CHANGES OVER TIME

In Table 4, the various Special Education categories have been explored from Grade 3 (Fall 2004) to Grade 10 (2012), when students wrote the OSSLT. The second-last column shows the OSSLT pass rate, and the last column shows the proportion of students taking Grade 9 courses in the Academic Program of Study. Most notable is the static nature of exceptionality identifications. Once identified in the earlier grades, the majority of students keep their exceptionality label throughout their academic tenure. Aside from the identification, the exceptionality category can impact students' programming and placement across all grades.

The last column of the table shows the overall proportion of secondary school students taking a majority of their courses in the Academic Program of Study. This has previously shown to be very strongly related to post-secondary access. Nearly all students confirming an offer of admission to university, and the majority of students confirming an offer of admission to college, took most of their courses in the Academic Program of Study (e.g., Sweet et al., 2011). Therefore, enrolment in the Academic Program of Study is highly correlated to university confirmation. Lowered enrolment in Academic Program of Study creates critical barriers for students identified as having an exceptionality (excluding Gifted) as their chances of post-secondary access is dramatically much lower.

Gifted Exceptionality: most students who ended up with an exceptionality of Giftedness were identified by Grade 5. Once students had been identified as having a Gifted exceptionality, they generally kept the designation throughout their education tenure (e.g., 96% of students with a Gifted exceptionality in Grade 6 still had it when they wrote the OSSLT).[1] Looking at Programs of Study across groups, 99% of students identified as Gifted were taking Academic courses in Grade 9.

Learning Disability: the majority of students identified with an LD in Grade 6 did not have the designation in Grade 3. Nearly all students (96%) identified with an LD, still had the exceptionality in Grade 10. The most important change in placement occurred between Grade 8 and Grade 9. As of Grade 8, almost three quarters (72%) of the students were placed in congregated Special Education classes; that is, they were taking a majority of their classes as Special Education programming; 25% received integrated programming along with students who had not been identified as having SEN. By Grade 9, this had reversed: 71% of these students were integrated into mainstream programming, while only 26% remained in congregated Special Education classes. Only 24% of students identified as having an LD exceptionality were enrolled in the Academic Program of Study.

[1] Nearly all of the students reported as having a Gifted exceptionality in Grade 6 but not as Gifted in Grade 10 were classified as having 'another exceptionality'. A more detailed analysis of the records found that nearly all of these students *still* maintained a Gifted exceptionality as well as the other exceptionality. When this is taken into account, only 5 of the 461 students with a Gifted exceptionality in Grade 6, had lost this exceptionality by Grade 10.

Mild Intellectual Disability: most students with a Grade 6 MID exceptionality had their exceptionality by Grade 4, and almost all (97%) still had an MID exceptionality in Grade 10. Nearly all were in Special Education classes in Grade 8 and two thirds (66%) continued to be in Special Education classes in Grade 9. Only 1% of these students took courses in the Academic Program of Study in Grade 9.

Other Exceptionalities: students with other exceptionalities were much more likely (84%) to have had an exceptionality early on, in Grade 3, and 95% continued to have an MID exceptionality by Grade 10. Most students were in full-time Special Education classes in elementary school, and the majority continued to be in congregated classes when they entered Grade 9. Less than a fifth (19%) were taking courses in the Academic Program of Study.

Individual Education Plan Only: the OSSLT pass rate of students who only had an IEP (no formal exceptionality) in Grade 6 was nearly identical to those with a formal identification of LD (49% compared to 46%). Most of these students had been placed on an IEP by Grade 4. While nearly all students with exceptionalities in Grade 6 retained their exceptionalities into secondary school, this was *not* the case for students who had an IEP only in Grade 6. By Grade 10, a little over a third (36%) still had an IEP; more than a third (39%) had lost their Special Education Needs status altogether, while 20% had an exceptionality and were taking general education classes.

The OSSLT pass rate for the students who had an exceptionality and were integrated into taking regular education classes was 46% - exactly the same as the pass rate for students who were identified as having an LD. However, the pass rate for students who only had an IEP continued to be 40% - *lower* than the pass rates of students with LD. It appears that there is no clear connection to the change of SEN status amongst students who only have an IEP, and their later achievement as measured through the Grade 10 Literacy Test.

Table 4: Grade 10 OSSLT, 2011-12
March 2012

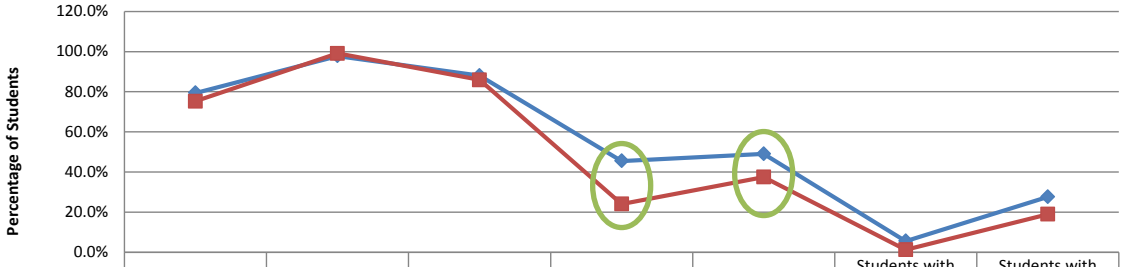
									N	OSSLT	% Academic
All students									**11,774**	**79.4**	**75.3**
1. Gifted Exceptionality, Grade 6									**451**	**97.8**	**99.1**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	5.1	61.2	79.6	100.0	94.2	95.1	96.2	95.8			
Without SEN	88.0	32.2	14.9	0.0	0.2	0.0	0.2	0.4			
Sp Ed Classes	0.7	1.8	2.9	0.0	1.8	1.1	0.0	0.0			
Regular Classes	0.4	0.7	9.0	0.0	1.6	2.2	3.3	3.5			
IEP	5.8	4.2	1.8	0.0	2.2	1.6	0.2	0.2			
2. Students without SEN, Grade 6									**8,984**	**88**	**85.9**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	0.0	0.0	0.0	0.0	0.6	0.9	1.1	1.1			
Without SEN	98.3	98.5	99.1	100.0	96.8	94.0	94.2	93.7			
Sp Ed Classes	0.0	0.0	0.0	0.0	0.2	0.4	0.2	0.2			
Regular Classes	0.0	0.0	0.0	0.0	0.2	0.4	1.0	1.2			
IEP	1.7	1.4	0.8	0.0	2.0	4.3	3.6	3.8			
3. Students with LD Exceptionality, Grade 6									**606**	**45.5**	**24.1**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	0.0	0.2	0.2	0.0	1.0	1.0	1.0	1.0			
Without SEN	38.9	18.8	6.3	0.0	0.2	0.3	1.5	1.2			
Sp Ed Classes	10.7	28.7	53.5	80.0	76.9	71.9	25.6	22.9			
Regular Classes	2.1	5.3	12.7	20.0	21.0	24.6	70.8	73.4			
IEP	48.2	47.0	27.4	0.0	1.0	2.1	1.2	1.5			
4. Students with MID Exceptionality, Grade 6									**160**	**5.6**	**1.3**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Without SEN	23.8	8.1	3.1	0.0	0.0	0.0	1.3	1.3			
Sp Ed Classes	38.8	55.6	76.9	96.9	96.3	95.6	66.3	65.6			
Regular Classes	5.0	1.3	2.5	3.1	3.1	2.5	30.6	31.9			
IEP	32.5	35.0	17.5	0.0	0.6	1.9	1.9	1.3			
5. Students with Other Exceptionalities, Grade 6									**232**	**27.6**	**19**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	0.9	0.9	0.9	0.0	1.3	1.3	1.3	1.3			
Without SEN	10.8	5.6	2.2	0.0	0.9	0.9	1.7	1.3			
Sp Ed Classes	61.6	65.5	75.9	84.1	81.9	80.2	59.5	56.9			
Regular Classes	12.1	14.7	17.2	15.9	15.1	15.9	36.6	38.4			
IEP	14.7	13.4	3.9	0.0	0.9	1.7	0.9	2.2			
6. Students with IEP Only, Grade 6									**1,341**	**49.0**	**37.5**
	Grade 3	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**			
Gifted	0.0	0.0	0.1	0.0	0.9	0.9	1.0	1.0			
Without SEN	52.1	35.0	16.6	0.0	4.5	10.4	28.7	38.6			
Sp Ed Classes	0.4	0.7	0.9	0.0	9.7	13.6	4.3	4.8			
Regular Classes	0.1	0.1	0.1	0.0	3.2	4.8	18.6	19.9			
IEP	47.4	64.2	82.3	100.0	81.7	70.3	47.4	35.8			

THE RELATIONSHIP BETWEEN GRADE 9 ACADEMIC PROGRAM OF STUDY AND GRADE 10 OSSLT RESULTS: SEN STATUS IN GRADE 6

Figure 4 shows the proportion of students passing the OSSLT in Grade 10 and the proportion of the same students taking a majority of their courses in the Academic Program of Study in Grade 9. Given how strongly both relate to post-secondary access, it is not surprising that for most SEN categories, these two lines are almost the same. Students without an SEN designation, 86% took Academic courses in Grade 9 and 88% passed the OSSLT the first time it was offered; students with an MID exceptionality, 1% took Academic courses in Grade 9 and 6% passed the OSSLT.

There appears to be two categories where this is not the case. Of students identified with an LD exceptionality, only 24% took Academic courses and 46% passed the OSSLT. Of students who only had an IEP and no formal exceptionality, 38% were taking the Academic Program of Study while 49% passed the OSSLT. In those cases, there appears to be something of a mismatch between Program of Study and Literacy rates (as measured through the OSSLT).

Figure 4: Students with Special Education Needs: OSSLT and Academic Courses Comparison



	All students (n=11,774)	Gifted Exceptionality Grade 6 (n=451)	Students without SEN Grade 6 (n=8,984)	Students with LD Exceptionality Grade 6 (n=606)	Students with IEP only Grade 6 (n=1,341)	Students with MID Exceptionality Grade 6 (n=160)	Students with Other Exceptionalities Grade 6 (n=232)
OSSLT (% Successful)	79.4%	97.8%	88.0%	45.5%	49.0%	5.6%	27.6%
% Taking Academic	75.3%	99.1%	85.9%	24.1%	37.5%	1.3%	19.0%

STUDENTS WITH SPECIAL EDUCATION NEEDS IN THE 2006-11 GRADE 9 COHORT

There were **18,265** students between 13 and 15 years of age starting secondary school in the TDSB on October 31, 2006. We looked at how these students were performing five years after they started, as of October 31, 2011. By this time, 1,900 students within this cohort group had left the TDSB. Reasons for "leaving" included moving to other boards, countries, education institutions, provinces, and private schools or the students who were deceased. The Grade 9 cohort analysis included **16,365** students.

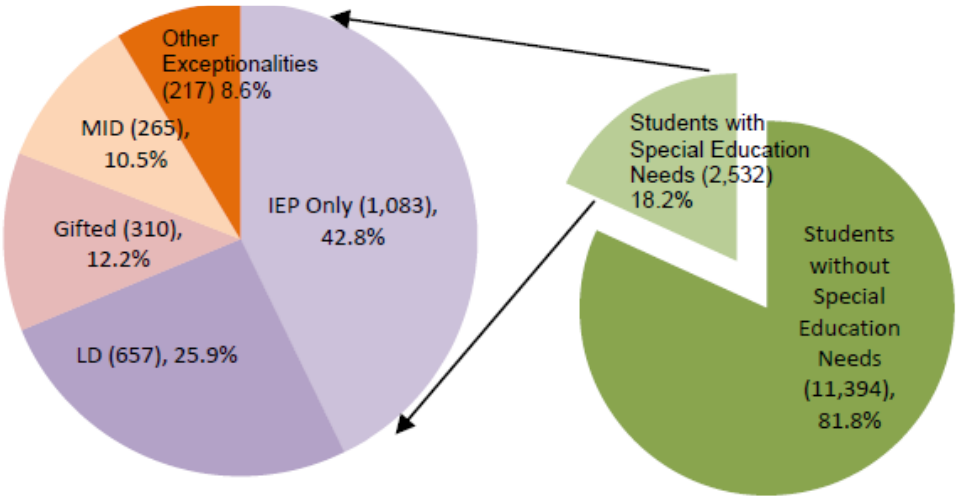
For the analysis on Special Education, students within the Grade 9 cohort who were also in the TDSB from Grade 7 (2004) were examined. Data from Fall 2004 is the earliest student-level information on Special Education Needs (SEN) that is available, and reflects decisions made regarding identification and placement up until the end of Grade 6.

What was the Special Education Needs status of these students in Grade 7?

Figure 5 shows that 18.2% (2,532) of the cohort were students identified as having SEN in Grade 7. As seen here, the largest group were students who only had an IEP (43% of all students with SEN). Of students with formal exceptionalities, the largest proportion was students with a Learning Disability (LD) (26%), 12% of students had a Gifted exceptionality, and 10% had a Mild Intellectual Disability (MID) exceptionality. The remaining nine exceptionalities, with numbers too small to report individually, accounted for the remaining 9% of the student population identified with SEN.

Despite the complexity of Ontario's Special Education Needs categories, over two thirds of students are accounted for by two groups: students who only have an IEP and students identified as having an LD. When students identified as Gifted and MID are included in the analysis, over 90% of all students identified with SEN are accounted.

Figure 5: Percentage Breakdown of Students with Special Education Needs in the Grade 9 Cohort (status as of Grade 7)



Key Outcomes: Grade 6 to Post-secondary

Table 5 shows key educational outcomes across SEN categories as students progress from Grade 6 to post-secondary. Included outcomes are:

- Grade 6 EQAO Reading,
- Grade 6 EQAO Mathematics,
- The proportion of Grade 9 courses in the Academic Program of Study,
- The five-year graduation rates,
- As well as university, college, and combined post-secondary confirmations.

The first column in Table 5 shows the key categories:

- Students identified with a Gifted exceptionality,
- Students without Special Education Needs,
- Students identified with an LD exceptionality,
- Students who only have an IEP,
- Students identified with an MID, other exceptionalities, and
- The total of all students in the cohort.

Student achievement outcomes for students with an LD exceptionality and those with an IEP in Grade 7 were explored by classroom placement. In the TDSB, most students in fully self-contained settings in the elementary school panel are in Intensive Support Programs (ISP), while most students in partially integrated settings are in Home School Programs (HSP).[2]

In general, the outcomes are strongly related. Students with higher achievement in Grade 6 are: more likely to be enrolled in Grade 9 Academic courses, to graduate, and go on to post-secondary education. Students identified as having a Gifted exceptionality have higher than average Grade 6 achievement and post-secondary outcomes. Conversely, students identified as having other exceptionalities (excluding Gifted) have much lower Grade 6 achievement and post-secondary outcomes.

[2] These terms exist only in the TDSB, and the HSP program exists only in elementary school. Of the 1,025 cohort students in the HSP-ISP programs excluding Gifted, the majority (60%) were LD or IEP only; slightly less than a quarter (or 23%) had an MID exceptionality, and the remainder were identified with other exceptionalities.

Table 5: The Grade 9 Cohort 2006-11:
Students with Special Education Needs Grade 7 (2004) and Status up to Grade 7 (2011)

Subgroups (Grade 7 Status)	Level 3-4 EQAO Grade 6 Reading	Level 3-4 EQAO Grade 6 Math	Grade 9 Academic	Graduation	Confirm University	Confirm College	Confirm Post-secondary	N
Gifted	93.0%	95.7%	99.4%	92.9%	68.4%	2.9%	71.3%	310
Students without Special Education Needs	67.7%	68.5%	82.0%	83.2%	54.0%	12.8%	66.8%	11,394
LD (Total)	18.7%	25.3%	22.8%	63.8%	12.6%	21.9%	34.5%	657
LD Categories								
A. LD- ISP	9.8%	15.5%	10.6%	55.7%	5.5%	24.3%	29.8%	235
B- LD- HSP	15.4%	26.2%	18.1%	61.2%	9.7%	23.6%	33.3%	237
B. LD- Regular Classes	30.8%	33.1%	42.5%	76.5%	24.6%	16.8%	41.3%	179
IEP only (Total)	25.8%	29.3%	36.1%	61.3%	17.7%	21.0%	38.7%	1,083
IEP Categories								
C. IEP only-- HSP	5.5%	7.9%	9.5%	56.2%	5.1%	25.5%	30.7%	137
D. IEP only-- Regular Classes	28.5%	32.1%	40.0%	62.2%	19.7%	20.5%	40.2%	930
MID	4.0%	5.1%	3.8%	44.2%	3.0%	17.7%	20.7%	265
Other Exceptionalities	21.6%	17.9%	14.3%	38.7%	9.2%	12.4%	21.6%	217

In terms of trajectories, the greatest similarities in achievement outcomes were between students who had only been assigned an IEP (no formal exceptionality) and students formally identified as having an LD exceptionality - who account for two thirds of students with Special Education Needs. In terms of student achievement, there was little noticeable difference between students who had an LD exceptionality in an ISP program and students who only had an IEP in an HSP program. The most marked differences in achievement were between students who were integrated into the regular classroom and students who were in congregated placements.

Gender: In all subgroups, the proportion of female students with Special Education Needs is much lower than males. Nearly two thirds (63%) of students identified as having Special Education Needs are male (see Table 6 for more detail).

Table 6: The Grade 9 Cohort 2006-11, Gender

Subgroups (Grade 7 Status)	Female	Male
Gifted	37.1%	62.9%
Student without Spec. Ed. Needs	51.2%	48.8%
LD	35.9%	64.1%
MID	41.9%	58.1%
Other Exceptionalities (excluding Gifted)	25.8%	74.2%
IEP Only	39.3%	60.7%
All Students in Grade 7 (2004) and Grade 12 (2011)	**48.7%**	**51.3%**

Racial Groups: Tables 7a and 7b compare students' self-identified racial groups. Within the TDSB's 2006 Student Census, students were asked to self-identify by race. The last row of Table 7a indicates the proportion of all students within each racial category. The last row of Table 7b shows the proportion of all students according to Special Education Needs categories. Across categories important racial trends emerge. Certain racial groups are over-represented in specific exceptionality categories, as can be seen in Table 7a. As seen in Table 7b, the proportion of students with and without Special Education Needs varies widely according to self-identified race: for example, 90% of East Asian students were without Special Education Needs and 10% had been identified with SEN, while 71% of Black students were without SEN and 29% had been identified with SEN.

Research has shown that factors, such as material advantage and access to resources, can influence perceptions of ability (O'Connor & Fernandez, 2006; Reid & Knight, 2006). The disparities shown in Tables 7a and 7b demonstrate a need for further research into referral and identification processes to ensure more equitable outcomes.

Table 7a: The Grade 9 Cohort 2006-11, Racial Groups

Subgroups (Grade 7 Status)	Black	East Asian	Latin	Middle Eastern	Mixed	South Asian	South East Asian	White
Gifted	4.6%	28.5%	0.0%	0.0%	6.3%	7.4%	1.1%	52.1%
Student without Spec. Ed. Needs	10.6%	19.8%	1.8%	4.1%	5.9%	20.6%	3.9%	33.4%
LD	17.1%	6.7%	3.8%	0.9%	7.6%	7.6%	3.1%	53.2%
MID	31.5%	2.8%	2.8%	9.6%	5.6%	20.2%	3.4%	24.2%
Other Exceptionalities (excl. Gifted)	25.2%	10.4%	3.5%	5.2%	8.7%	11.3%	3.5%	32.2%
IEP Only	27.2%	9.9%	2.9%	6.5%	6.6%	14.8%	3.0%	29.0%
All Students in Grade 7 (2004) and Grade 12 (2011)	**12.4%**	**18.3%**	**2.0%**	**4.2%**	**6.0%**	**19.2%**	**3.7%**	**34.2%**

Table 7b: The Grade 9 Cohort 2006-11, Racial Groups

Student Racial Group	Students without Spec. Ed. Needs	Gifted	LD	MID	Other Exceptionalities (excluding Gifted)	IEP only
Black	71.2%	0.9%	6.2%	3.7%	1.9%	16.1%
E Asian	90.1%	3.6%	1.6%	0.2%	0.5%	4.0%
Latin	76.7%	0.0%	8.8%	2.1%	1.7%	10.8%
MiddleE	83.0%	0.0%	1.0%	3.3%	1.2%	11.5%
Mixed	81.2%	2.4%	5.6%	1.3%	1.3%	8.1%
S Asian	89.6%	0.9%	1.8%	1.5%	0.6%	5.7%
SE Asian	87.5%	0.7%	3.7%	1.3%	0.9%	5.9%
White	81.4%	3.5%	7.0%	1.0%	0.9%	6.2%
All students in Grade 7 (2004) and Grade 12 (2011)	**83.5%**	**2.3%**	**4.5%**	**1.4%**	**0.9%**	**7.3%**

Languages: Table 8 shows the distribution of SEN categories according to key TDSB languages (any language with 100 or more students in the cohort). As with Race in Table 7b, there is a wide variation of SEN categories. In particular, students speaking Arabic, only English, Spanish, and Somali have higher proportions of SEN identifications.

Table 8: Key TDSB Languages and Special Education Needs

Student Language	Students without Spec. Ed. Needs	Gifted	LD	MID	Other Exceptionalities (excluding Gifted)	IEP only
Arabic	77.9%	0.0%	2.1%	4.3%	2.9%	12.9%
Bengali	92.4%	1.0%	0.0%	0.5%	1.0%	5.1%
Chinese	89.0%	3.4%	1.8%	0.5%	1.0%	4.3%
English	77.3%	3.0%	7.0%	2.1%	1.9%	8.7%
Greek	80.2%	1.7%	4.1%	5.0%	0.0%	9.1%
Gujarati	93.5%	0.5%	1.0%	2.0%	0.5%	2.5%
Hindi	88.6%	1.8%	0.0%	1.8%	1.8%	6.1%
Korean	94.0%	0.4%	1.7%	0.4%	0.0%	3.4%
Persian (Farsi)	82.5%	0.0%	0.8%	4.1%	1.2%	11.4%
Punjabi	88.3%	0.0%	1.8%	3.2%	0.5%	6.3%
Russian	88.2%	3.2%	2.2%	1.1%	0.5%	4.8%
Somali	71.4%	0.0%	3.8%	3.4%	2.9%	18.5%
Spanish	75.6%	0.0%	8.4%	3.1%	1.9%	11.1%
Tagalog (Pilipino)	90.5%	0.0%	2.4%	3.2%	0.0%	4.0%
Tamil	88.4%	0.3%	1.7%	1.8%	1.1%	6.7%
Urdu	91.2%	0.0%	0.5%	1.3%	0.8%	6.3%
Vietnamese	87.2%	1.0%	2.4%	0.7%	1.7%	6.9%
Others	83.2%	1.2%	3.5%	2.1%	1.6%	8.3%
All students in Grade 7 (2004) and Grade 12 (2011)	**81.8%**	**2.2%**	**4.7%**	**1.9%**	**1.6%**	**7.8%**

Changes in Time: Special Education and Regular Classes

Most students identified with an exceptionality are in Special Education classes in Grade 7; however, by Grade 12 the majority are enrolled in regular education secondary school classes. As seen in Table 9, there are noted differences in Special Education Needs status according to the Program of Study taken in Grade 9. While nearly all students with a Gifted exceptionality and 82% of students without SEN were taking Academic courses in Grade 9, only 40% of students with exceptionalities (excluding Gifted) in regular classes and only 11% of students in full-time Special Education classes took Academic courses[3]. As Table 10 illustrates, the relationship of Grade 9 Program of Study to post-secondary pathways is strong - in particular, confirming an offer to university.

Outside of moving to regular settings in secondary school, there was little change in students' SEN status between Grade 7 and the end of secondary school. Over 90% of students identified with exceptionalities in Grade 7 continued to be identified with SEN in Grade 12 and over 80% maintained their Grade 7 exceptionality. The only noticeable change was that 287 students lost their IEP status between Grade 7 and 12, and became students without Special Education Needs. However, there was little difference in achievement between students who lost their IEP status and the 494 who maintained their IEP status between Grades 7 and 12.

Table 9: The Grade 9 Cohort 2006-11, Program of Study

Subgroups (Grade 7 Status)	Academic	Applied	Locally Developed	No Program of study
Gifted (Regular and Special Education)	99.4%	0.6%	0.0%	0.0%
Grade students without Spec. Ed. Needs	82.0%	16.3%	1.2%	0.5%
Regular Classes	39.5%	51.0%	8.5%	0.9%
Special Education Classes	10.8%	45.5%	33.3%	10.4%
All Students in Grade 7 (2004) and Grade 12 (2011)	**73.5%**	**21.1%**	**4.2%**	**1.3%**

Table 10: The Grade 9 Cohort 2006-11, Post-secondary Pathways

Subgroups (Grade 7 Status)	Confirm University in Ontario	Confirm College in Ontario	Apply to post-secondary in Ontario but no record of acceptance	Did not apply to post-secondary
Gifted (Regular and Special Education)	68.4%	2.9%	16.8%	11.9%
Students without Spec. Ed. Needs	54.0%	12.8%	10.2%	23.0%
Regular Classes	20.2%	19.8%	9.7%	50.3%
Special Education Classes	6.0%	20.3%	6.7%	67.0%
All Students in Grade 7 (2004) and Grade 12 (2011)	**47.9%**	**13.7%**	**10.1%**	**28.3%**

[3] Regular Classes include those students with regular setting information (Indirect Service, Research Assistance, Withdrawal Assistance) plus those with an IEP (no exceptionality) and no record of setting information.

There is also a strong relationship between Special Education Needs setting and socio-economic factors as seen in Tables 11 and 12. Students with a Gifted exceptionality are more likely to come from backgrounds of greater privilege compared to students without SEN. In comparison, students with SEN who are in regular classes faced greater socio-economic challenges, and students in full-time Special Education classrooms had the greatest socio-economic challenges.

Table 11: The Grade 9 Cohort 2006-11, Parental Presence

Subgroups (Grade 7 Status)	Both Parents	One Parent	Other
Gifted (Regular and Special Education)	87.6%	12.4%	0.0%
Students without Spec. Ed. Needs	79.6%	18.2%	2.2%
Regular Classes	70.4%	26.4%	3.2%
Special Education Classes	63.2%	32.4%	4.4%
All Students in Grade 7 (2004) and Grade 12 (2011)	**78.0%**	**19.6%**	**2.3%**

Table 12: The Grade 9 Cohort 2006-11, Parental Education and Parental Occupation

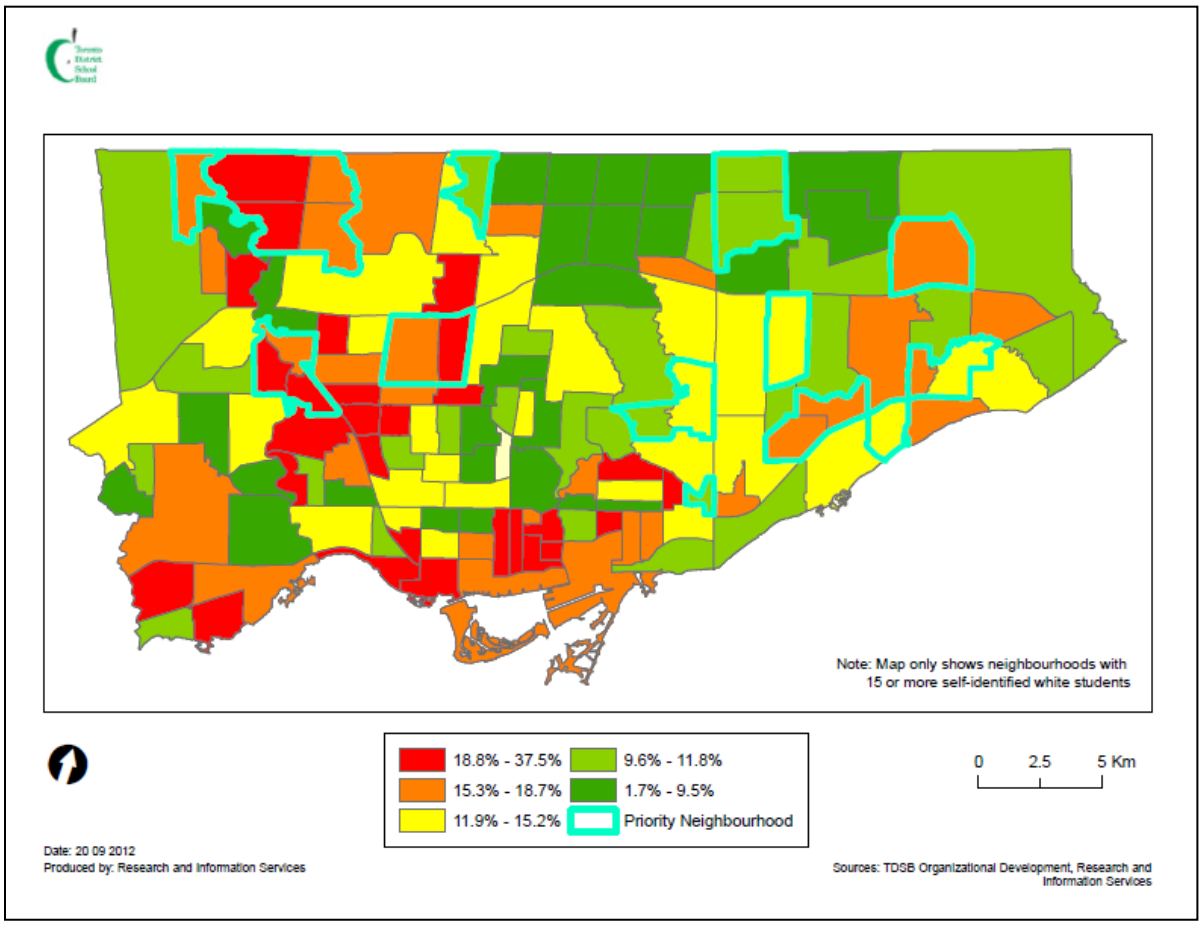
Subgroups (Grade 7 Status)	High School	College	University	Don't Know
Gifted (Regular and Special Education)	6.3%	8.1%	77.1%	8.5%
Students without Spec. Ed. Needs	14.4%	15.6%	45.8%	24.2%
Regular Classes	17.7%	16.2%	31.6%	34.6%
Special Education Classes	20.8%	16.9%	24.4%	38.0%
All Students in Grade 7 (2004) and Grade 12 (2011)	**14.9%**	**15.5%**	**44.1%**	**25.5%**
Subgroups (Grade 7 Status)	**Professional**	**Semi-Professional**	**Skilled Clerical**	**Unskilled Clerical & Non-renumerative**
Gifted (Regular and Special Education)	56.2%	29.5%	12.0%	2.4%
Students without Spec. Ed. Needs	27.7%	32.5%	26.8%	12.9%
Regular Classes	20.0%	29.2%	32.5%	18.3%
Special Education Classes	11.1%	29.9%	33.8%	25.2%
All Students in Grade 7 (2004) and Grade 12 (2011)	**27.1%**	**32.1%**	**27.1%**	**13.7%**

GEOGRAPHICAL DISTRIBUTION OF STUDENTS WITH SPECIAL EDUCATION NEEDS

The City of Toronto can be divided into 140 Neighborhoods, based on the Census Tracts used in the 2006 Federal Census[4]. The colour refers to the proportion of students with SEN (excluding Gifted) out of all cohort students living in the neighbourhood.

Although the relationship is by no means absolute, neighbourhoods with a higher proportion of students with SEN (brown or red colour) also tend to be neighbourhoods traditionally associated with higher socio-economic challenge (see, for example, *The 2010-2011 Vision of Hope Environmental Scan of the Toronto District School Board*, pp. 18, 20, 59).

Figure 6: Percentage of Students in the Grade 9 Cohort (2006-11) with Special Education Needs (excluding Gifted) in Grade 7 by Toronto Neighbourhoods



[4] This map was generated by Cosmin Marmureanu of the TDSB's Organizational Development/Research & Information Services department.

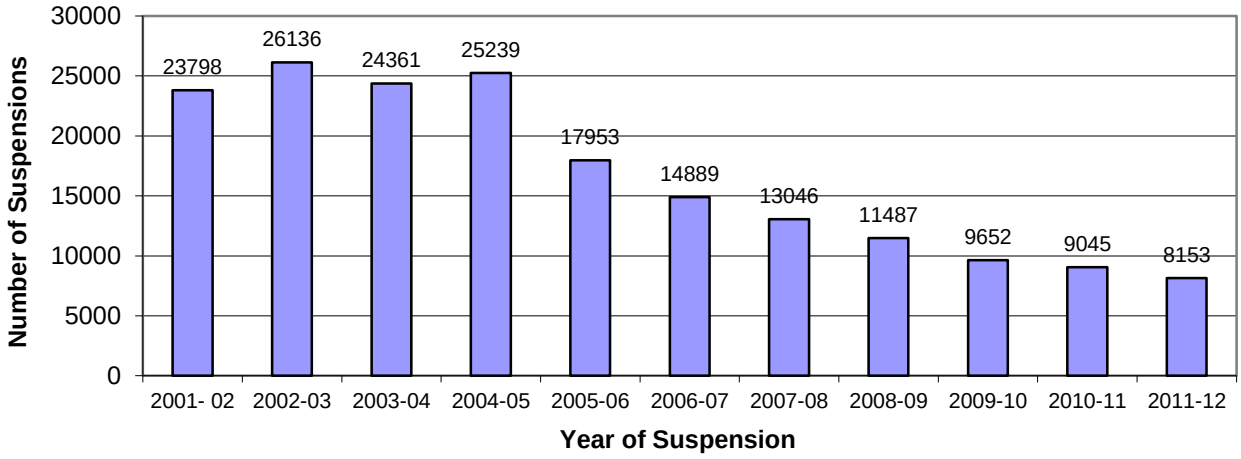
OVERVIEW OF SUSPENSION DATA: SUSPENSIONS IN THE GRADE 9 COHORT, 2006-11

Methodology of Linking Suspension Data to the Grade 9 Cohort

Information from the Suspension Dataset was provided by the Safe Schools department. Between the 2001-02 and 2011-12 school years, there were 74,115 students suspended and 183,759 suspension cases across the TDSB. The actual number of suspensions each year has declined greatly since the 2005-06 school year. The number of suspensions over the 2011-12 year was a third (8,153) the number of suspensions in 2001-02.

For students in the 2006-07 cohort, suspensions starting in September 2002 and up to October 31, 2011 were included (see Figure 7).

Figure 7: Number of Suspensions in the TDSB, 2001-02 to 2011-12



CUMULATIVE SUSPENSIONS OF STUDENTS IN THE GRADE 9 COHORT: GRADE 5 TO THE END OF SECONDARY SCHOOL

Number of Suspensions

In total, 3,628 students (or 22%) out of the cohort sample of 16,365 had been suspended at least once between September 2002 and October 2011:

- 1,700 students (or 47%) were suspended once;
- 673 students (or 19%) were suspended twice;
- 356 students (or 10%) were suspended three times;
- 381 students (or 11%) were suspended four or five times; while
- 518 students (or 14%) were suspended six or more times.

Length of Suspensions

Of the suspended students,

- 800 students (or 22%) were suspended for only one day;
- 483 students (or 13%) were suspended for two days;
- 515 students (or 14%) were suspended for three days;
- 450 students (or 12%) were suspended for four to five days;
- 519 students (or 14%) were suspended for six to ten days; and
- 861 students (or 24%) were suspended 11 or more days (up to 122 days in total).

The majority of students who were suspended lost a week (five days) of school or less between Grade 5 and the end of secondary school, although some did lose substantial number of days in total.

Relationship to Demographic and Socio-economic Variables

The relationship to other variables was extremely strong.

Special Education Needs: In looking at Grade 7 Special Education Needs (SEN) status, students without SEN had a suspension rate of 20% and students identified as Gifted had a suspension rate of 13%. In comparison, the suspension rate was 42% for students with an LD exceptionality, 42% for students with MID, 45% for students with other exceptionalities (including Behavioral), and 42% for students with an IEP. Note that the majority of students with SEN were not suspended, and most students who were suspended did not have SEN. However, there is a strong connection.

Table 13: Suspension Rates by Special Education Needs Variables

Special Education Needs Variables		No Suspension	At Least One Suspension
Students With Special Education Needs Status	Students Without Special Education Needs	80.0%	20.0%
	IPRC Gifted	87.1%	12.9%
	LD	58.1%	41.9%
	MID	57.7%	42.3%
	Other Exceptionalities (excluding Gifted)	54.8%	45.2%
	Non-identified Special Needs and or IEP	58.0%	42.0%
	All Students	76.6%	23.4%

Gender: The suspension rate for females was 13% compared to 31% of males.

Race: Nineteen percent (19%) of self-identified White students in the cohort had been suspended at least once. This figure is fairly reflective of the 22% overall suspension rate. Students with a suspension rate below this were students self-identified as: East Asian (8%), South East Asian (14%), and South Asian (17%). Students with a rate above this were students self-identified as: Black (44%), Middle East (29%), Mixed (29%), and Latin (28%).

Parental Occupation: Students whose parents had professional backgrounds encountered a suspension rate of 12%, around half the rate of students whose parents did not have a professional background.

Parental Status: Students living with both parents had a 17% suspension rate, compared to 30% for those living with one parent, and 31% for students in other living arrangements.

Parental Education: Students whose parents had a university education had a 14% suspension rate, compared to 26% of students whose parents had a secondary school education, 25% of students whose parents had a college education, and 24% for students who did not know their parents' level of education.

Table 14: Suspension Data by Student Demographic Variables

Demographic Variables		No Suspension	At Least One Suspension
Gender	Male	69.4%	30.6%
	Female	86.8%	13.2%
	All Students	**77.8%**	**22.2%**
Sexual Orientation	Heterosexual	79.3%	20.7%
	LGBTQ	74.3%	25.7%
	Questioning	85.4%	14.6%
	All Students	**79.5%**	**20.5%**
Racial Groups	Black	56.3%	43.7%
	East Asian	91.8%	8.2%
	Latin	71.6%	28.4%
	Middle Eastern	70.9%	29.1%
	Mixed	70.9%	29.1%
	South Asian	83.5%	16.5%
	South East Asian	85.6%	14.4%
	White	81.2%	18.8%
	All Students	**79.5%**	**20.5%**

Note: racial groups with less than 100 students are not included

Table 15: Suspension Data by Parent's Demographic Variables

Parent's Demographic Variables		No Suspension	At Least One Suspension
Parental Education	High School	73.9%	26.1%
	College	74.7%	25.3%
	University	85.7%	14.3%
	Don't Know	75.5%	24.5%
	All Students	**79.8%**	**20.2%**
Parental Presence	Both Parents	82.6%	17.4%
	One Parents	70.0%	30.0%
	Other	68.9%	31.1%
	All Students	**77.8%**	**22.2%**
Parental Occupation	Professional	88.0%	12.0%
	Semi-Professional	81.0%	19.0%
	Skilled Clerical	78.6%	21.4%
	Unskilled Clerical	74.7%	25.3%
	Non-Remunerative	78.2%	21.8%
	All Students	**81.5%**	**18.5%**

Neighbourhood Income: While 34% of students in the lowest income neighbourhoods had been suspended at least once, 14% of those in the highest income neighbourhoods had been suspended.

Table 16: Suspension Data by Income Deciles

Demographic Variables		No Suspension	At least One Suspension
Income Level	1 Lowest Income Level	66.0%	34.0%
	2	70.5%	29.5%
	3	74.9%	25.1%
	4	74.8%	25.2%
	5	77.2%	22.8%
	6	76.5%	23.5%
	7	80.0%	20.0%
	8	79.7%	20.3%
	9	82.7%	17.3%
	10 Highest Income Level	85.6%	14.4%
	All Students	**76.8%**	**23.2%**

Student Language: Students speaking Somali (43%), Arabic (34%), and Spanish (30%) were much more likely to be suspended, while those speaking Chinese (8%), Hindi (9%), and Gujarati (10%) were much less likely to be suspended.

Table 17: Suspension Data by Student Language Variables

Student Language	No Suspension	At least One Suspension
Arabic	65.9%	34.1%
Bengali	86.3%	13.7%
Chinese	92.1%	7.9%
English	72.0%	28.0%
Greek	80.0%	20.0%
Gujarati	90.4%	9.6%
Hindi	90.6%	9.4%
Korean	86.8%	13.2%
Persian (Farsi)	73.7%	26.3%
Punjabi	81.6%	18.4%
Russian	79.4%	20.6%
Somali	56.5%	43.5%
Spanish	70.0%	30.0%
Tagalog (Pilipino)	89.5%	10.5%
Tamil	83.1%	16.9%
Urdu	84.0%	16.0%
Vietnamese	81.7%	18.3%
Other (Unclassified)	78.2%	21.8%
All Students in Grade 7 (2004) and Grade 12 (2011)	**77.7%**	**22.3%**

Relationship of Being Suspended to Achievement

Despite the comparatively few numbers of suspensions and of days suspended over the students' elementary and secondary school careers, the relationship of achievement and cumulative suspensions is very strong, as seen in Table 18. The cumulative suspension rate for students who achieved below Level 1 in Grade 6 EQAO was 38% compared to 7% of those who achieved at Level 4.

Table 18: Suspension Data by Student Achievement Variables

Student Achievement Variables		No Suspension	At Least One Suspension
EQAO Grade 6 Average Score (2003-04)	Below Level 1	62.4%	37.6%
	Level 1	49.0%	51.0%
	Level 2	65.4%	34.6%
	Level 3	83.2%	16.8%
	Level 4	92.8%	7.2%
	All Students	**76.9%**	**23.1%**
Grade 9/10 Academic Program	Academic	85.3%	14.7%
	Applied	59.1%	40.9%
	Locally Developed (Essentials)	49.7%	50.3%
	No Program	67.4%	32.6%
	All Students	**77.8%**	**22.2%**
Graduation Outcome	Graduate	85.0%	15.0%
	In TDSB Oct 31 2011	50.9%	49.1%
	Dropout (or no information)	51.5%	48.5%
	All Students	**77.8%**	**22.2%**
Post-secondary Pathways	Confirm University in Ontario	91.1%	8.9%
	Confirm College in Ontario	76.9%	23.1%
	Apply to post-secondary in Ontario	79.0%	21.0%
	Did not apply to post-secondary	56.3%	43.7%
	All Students	**77.8%**	**22.2%**

The suspension rate for students taking a majority of their courses in the Locally Developed (Essentials) Program of Study was 50%, the rate for students taking Applied courses was 41%, and the rate for students taking Academic courses was 15%. Students who dropped out had a 49% suspension rate, compared to a rate of 15% for graduates. Students who did not apply to post-secondary had a suspension rate of 44%. However, students who confirmed an offer of admission to university had a notably reduced rate of suspension at 9%.

A COMBINED AT-RISK VARIABLE

Given the strong relationship of Special Education Needs (SEN) to both low academic achievement (as defined by students below Level 3 in the Grade 6 EQAO tests) and suspensions (students suspended at least once from the beginning of Grade 5), a variable was developed that would examine all three at-risk components.

In total, 51% of students in the cohort did not demonstrate any of the at-risk features and 49% did. The differences between socio-economic status (SES) and demographic subgroups regarding students who had low-achievement, students who were suspended, and students who had an SEN tended to be magnified when the three at-risk factors were combined. There was a 17% gender gap, with 57% of males and 40% of females having at least one at-risk characteristic. In a similar pattern, it was revealed that 29% of self-identified East Asian, 45% of self-identified South Asian, 43% of self-identified White, and 74% of self-identified Black students had at least one 'at-risk' characteristic. The range of students by language goes from 31% of students speaking Chinese, to 68% of students speaking Spanish, and 74% of students speaking Somali. A more detailed analysis can be seen in Table 19.

Table 19: Combined At-Risk Variables across Achievement, Demographic, and Neighbourhood Indicators

a. Student Achievement Variables		No Risk Factors	At Least One At-Risk Factor
Grade 9/10 Academic Program	Academic	65.0%	35.0%
	Applied	11.2%	88.8%
	Locally Developed (Essentials)	1.1%	98.9%
	No Program	13.8%	86.3%
	All Students	**51.5%**	**48.5%**
Graduation Outcome	Graduate	59.0%	41.0%
	In TDSB Oct 31 2011	16.9%	83.1%
	Dropout (or no information)	21.7%	78.3%
	All Students	**51.5%**	**48.5%**
Post-secondary Pathways	Confirm University in Ontario	73.6%	26.4%
	Confirm College in Ontario	30.2%	69.8%
	Apply to post-secondary in Ontario	51.3%	48.7%
	Did not apply to post-secondary	22.1%	77.9%
	All Students	**51.5%**	**48.5%**

b. Demographic Variables		No Risk Factors	At Least One At-Risk Factor
Gender	Male	43.1%	56.9%
	Female	60.1%	39.9%
	All Students	**51.5%**	**48.5%**
Sexual Orientation	Heterosexual	54.3%	45.7%
	LGBTQ	51.4%	48.6%
	Questioning	43.1%	56.9%
	All Students	**53.8%**	**46.2%**
Racial Groups	Black	26.3%	73.7%
	East Asian	70.8%	29.2%
	Latin	36.2%	63.8%
	Middle Eastern	34.8%	65.2%
	Mixed	49.6%	50.4%
	South Asian	55.2%	44.8%
	South East Asian	57.6%	42.4%
	White	56.5%	43.5%
	All Students	**53.4%**	**46.6%**

Note: racial groups with less than 100 students are not included

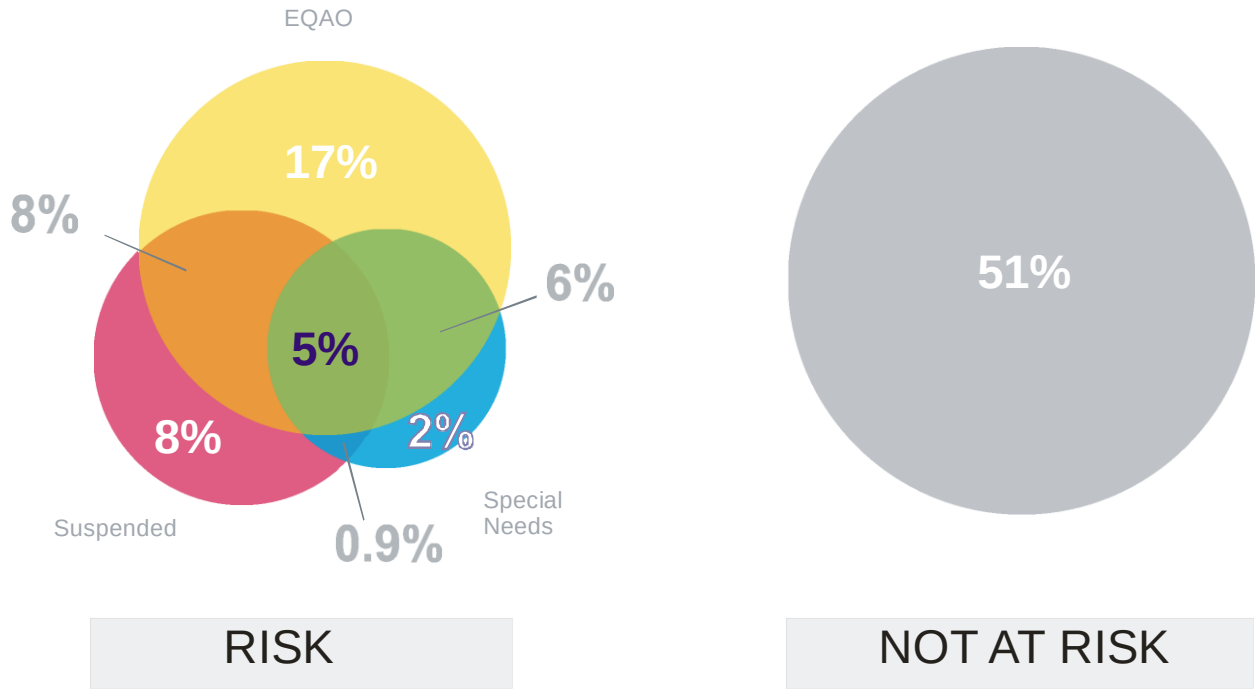
c. Neighbourhood Income		No Risk Factors	At-least One At-Risk Factor
Income Level	1 Lowest Income Level	34.1%	65.9%
	2	39.6%	60.4%
	3	45.3%	54.7%
	4	47.7%	52.3%
	5	50.1%	49.9%
	6	53.9%	46.1%
	7	54.9%	45.1%
	8	58.6%	41.4%
	9	61.5%	38.5%
	10 Highest Income Level	69.5%	30.5%
	All Students	**51.7%**	**48.3%**

d. Parent's Demographic Variables		No Risk Factors	At Least One At-Risk Factor
Parental Education	High School	44.1%	55.9%
	College	48.6%	51.4%
	University	65.2%	34.8%
	Don't Know	42.8%	57.2%
	All Students	**53.8%**	**46.2%**
Parental Presence	Both Parents	57.4%	42.6%
	One Parents	40.8%	59.2%
	Other	32.6%	67.4%
	All Students	**51.5%**	**48.5%**
Parental Occupation	Professional	71.1%	28.9%
	Semi-Professional	59.0%	41.0%
	Skilled Clerical	50.8%	49.2%
	Unskilled Clerical	41.6%	58.4%
	Non-Remunerative	39.5%	60.5%
	All Students	**57.7%**	**42.3%**

e. Student Language	No Risk Factors	At Least One At-Risk Factor
Arabic	29.4%	70.6%
Bengali	65.2%	34.8%
Chinese	68.6%	31.4%
English	47.8%	52.2%
Greek	39.3%	60.7%
Gujarati	58.7%	41.3%
Hindi	61.9%	38.1%
Korean	65.0%	35.0%
Persian (Farsi)	36.6%	63.4%
Punjabi	50.0%	50.0%
Russian	54.4%	45.6%
Somali	25.9%	74.1%
Spanish	32.0%	68.0%
Tagalog (Pilipino)	58.8%	41.2%
Tamil	59.3%	40.7%
Urdu	47.3%	52.7%
Vietnamese	58.8%	41.2%
Other (Unclassified)	49.2%	50.8%
All students in Grade 7 (2004) and Grade 12 (2011)	**51.4%**	**48.6%**

Figure 8 shows the overall frequencies of the risk factors. The large circle on the right shows the 51% of students with no at-risk factors, while the Venn diagram on the left illustrates the intersection of the three at-risk factors for the 49% of students who have at least one factor. Students with SEN are strongly associated with multiple risk factors. Out of all students with SEN, 6% had both SEN and low EQAO achievement; 0.9% had both SEN and suspensions; 5% had all three risk factors - SEN, low EQAO achievement, and suspensions. Just 2% of students had SEN only, without any of the other two risk factors. This 2% of students who only had SEN accounts for *less than a fifth* of all students with SEN. As the Venn diagram shows, it is quite a small piece of the SEN pie. This means that for the most part, SEN is not an independent concept, but is clearly associated with other at-risk characteristics.

Figure 8: Percentage of Students by At-Risk Factors[5]

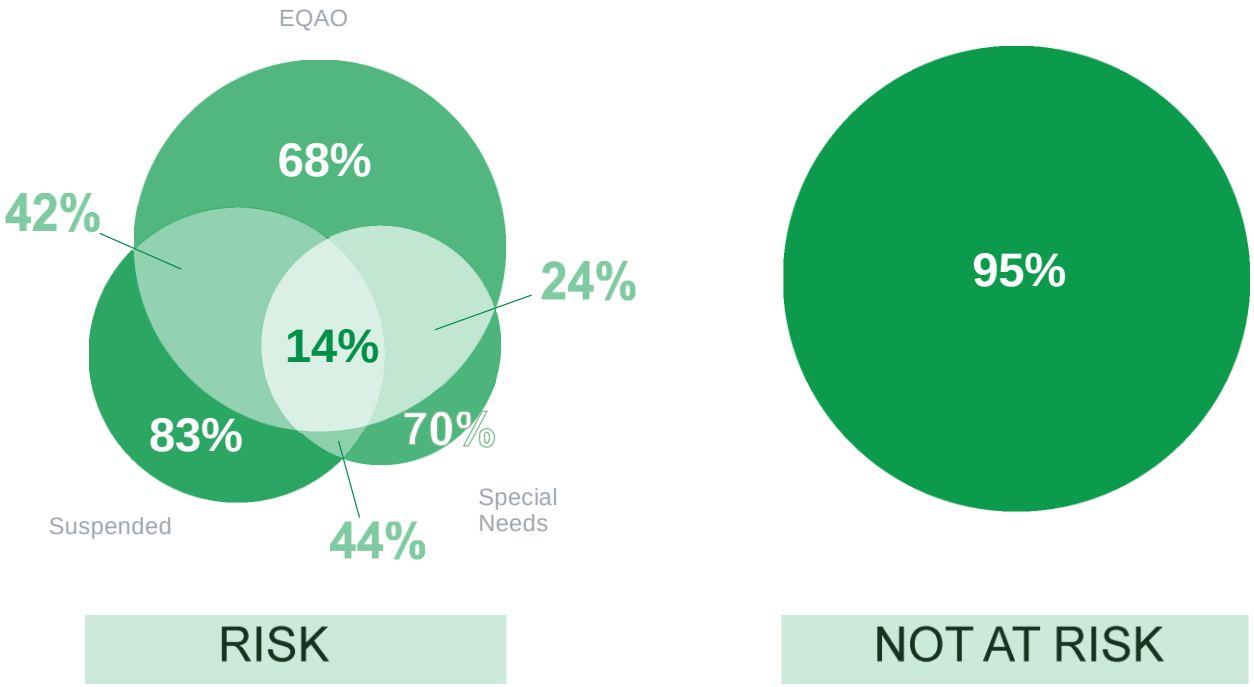


[5] We would like to acknowledge the role of Chris Conley, Research Analyst with the Durham DSB and Executive Lead for the Barrie Region MISA Professional Network Centre, in the development and execution of Figures 8-10, as part of the KNEAR project on Data Visualization.

Relationship to Grade 9 Program of Study and University Confirmations

The strength of these combined at-risk factors is best seen in the relationship to Grade 9 Program of Study and university confirmations. Figure 9 shows the at-risk factors through colour density. The darker the colour, the more likely students will be taking the majority of their courses in the Academic Program of Study. When students without any of the three at-risk factors were examined, the relationship to Program of Study is nearly absolute: 95% of those students took a majority of their Grade 9 courses in the Academic Program of Study.

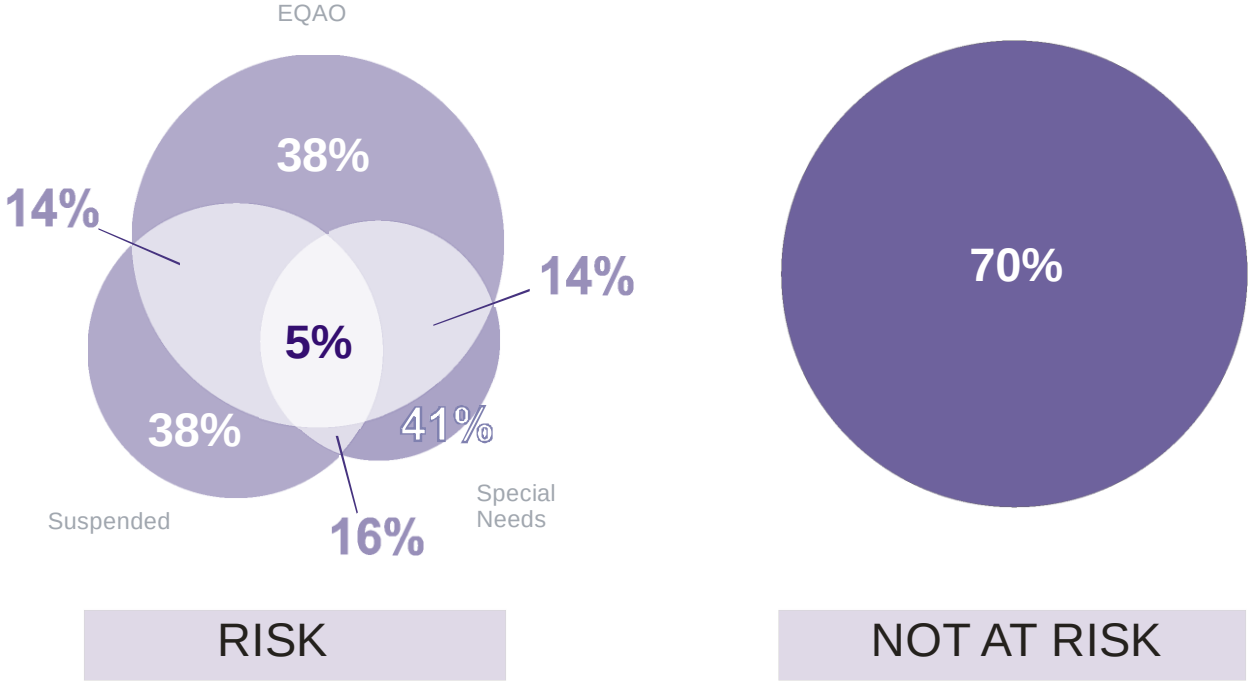
Figure 9: Percentage of Students taking Grade 9 Courses in the Academic Program of Study by At-Risk Factors



When the at-risk factors are examined, the shades of green fade as the at-risk factors increase: from students who have one at-risk factor, to those with two, and finally a very pale shading for students with three at-risk factors. As student at-risk factors accumulate, the likelihood of students taking the majority of their courses in the Academic Program of Study diminishes. Only 14% of students with all three at-risk factors took Academic courses, which suggests serious limitations to their future academic and employment opportunities.

Figure 10 also shows the at-risk factors through colour. The darker the colour, the more likely students confirm an offer of admission from an Ontario university. Students with no at-risk factors show a fairly intense purple: 70% or close to three quarters confirmed an offer of admission from an Ontario post-secondary institute[6].

Figure 10: Percentage of Students Confirming an Offer of Admission from an Ontario University by At-Risk Factors



As we explore the intersection of at-risk factors, the colour fades. It appears that the presence of even one identified at-risk factor severely limits university access for students (from 70% down to 38-41%). University access for students with two at-risk factors was unlikely (14-16%) and for students with all three at-risk factors, the chance of directly going to university was very remote (5%).

The implications of these patterns are critically important. The three at-risk characteristics (SEN, suspensions, and low EQAO) are very highly correlated to themselves, meaning once a student presents with one at-risk factor, they are highly vulnerable to acquiring another.

[6] Because information on students who go to university outside Ontario is not available, it is safe to assume that this proportion is 75% or higher.

IDENTIFIED BARRIERS TO INCLUSIVE EDUCATION: A SYSTEMATIC REVIEW

Special education has been identified as a mechanism to advance equity among a student population with diverse educational needs. Through specialized support and accommodation, students are afforded more equitable education opportunities and can expect to achieve greater academic outcomes. International literature suggests that moving towards an inclusive model of education, as opposed to the currently employed parallel system, not only aligns with international human rights conventions (such as the Convention on the Rights of Persons with Disabilities), but also boosts social and academic outcomes for both students with and without Special Education Needs (SEN). The benefits of segregated placements as well as deficit oriented pedagogical approaches have been widely challenged (Mitchell, 2010). Processes around special education referrals and identification have been questioned as to their objective rigor particularly around whether assessment results which indicate impairment are being conflated with other socio-economic disadvantages (Artiles, Kozleski, Trent, Osher & Ortiz, 2010). Past Toronto District School Board (TDSB) reports on special education have demonstrated significant over-and under-representation of socio-demographic variables within exceptionality categories (Brown & Parekh, 2010).

In light of its pursuit to address historically marginalized groups, the TDSB is seeking to move towards greater inclusion of students identified with SEN. In order to facilitate this process, the TDSB's Research department has conducted a systematic evidence review of literature looking specifically for studies that address barriers to and initiatives supporting inclusion. A systematic evidence review is an objective scan of international literature exploring emerging themes in special and inclusive education. The role of this review is to conduct a broad literature search, extract studies that fall under specified criteria, and to synthesize results in a way that is accessible and clear to policy-makers and educationalists.

METHODOLOGY

The systematic evidence review was conducted with stringent guidelines regarding the extraction and inclusion of education studies. The driving question behind the review was "What enables or disables inclusion of students with SEN in schools?" To begin the process, researchers tested several online search engines with various terms to see which terms in combination with which search engines produced the most relevant results. Initial "fishing" terms included: *evidence inclusion education, evidence inclusive education disability, evidence based special inclusive education policy, evidence based practice mainstreaming, meta analysis inclusive education policy, systematic evidence review inclusive education policy, meta analysis effectiveness of inclusive education, evidence effective inclusive education policy, mainstream policy effective, effective mainstreaming policy inclusion, implementing inclusive education setting, benefits of inclusive education evidence, evidence based inclusive inclusion, literature evidence inclusion, studies evidence inclusive education, meta analysis on inclusion education, international trends in special education, international trends in inclusive education, meta analysis on ability grouping education.*

After an initial search, three search terms that led to the most relevant results were selected: 1) *evidence based inclusive special education*, 2) *evidence effective inclusive education policy*, and 3) *international studies in trends special inclusive education*. All three search terms were then applied to three separate search engines (Google Scholar, ERIC, and ProQuest). The following criteria were applied in filtering articles to include in the review.

CRITERIA AT TITLE - ABSTRACT LEVEL	CRITERIA AT ABSTRACT - ARTICLE LEVEL
Article	Evidence based results
Published 2008 to present	Clear methodology
Not strategic towards specific exceptionality	Based within urban public education system
Not service/program specific	Addresses shift towards inclusion
Include first 50 results or less	

In short, the first round of selected articles, based on titles and abstracts, had to be in article format, found within the first 50 results per term within each search engine, published in 2008 or after, could not be a strategy specific to an exceptionality (e.g., learning disability, autism, etc.), and could not be service or program specific (e.g., cognitive therapy, applied behaviour, etc.). The first round of the article search yielded 63 potential articles. Pulling from this initial collection of articles, based on full abstract and/or article review, selected articles were run through a second round of criteria which included: articles had to establish evidence based results, a clear methodology, be based within a relatively urban public education system, and must address barriers to or strategies for moving towards inclusion. Upon completion of the second round of screening, 20 articles were approved. After repeated articles were eliminated, 17 articles remained.

SEARCH ENGINE	TERM	ARTICLES THAT MET 1ST CRITERIA AT ABSTRACT LEVEL	ARTICLES THAT MET 2ND CRITERIA AT ABSTRACT LEVEL
Google Scholar	evidence based inclusive special education	10 of 50	1
	evidence effective inclusive education policy	16 of 50	4
	international studies in trends special inclusive education	12 of 50	8
ERIC	evidence based inclusive special education	6 of 41	3
	evidence effective inclusive education policy	1 of 10	0
	international studies in trends	4 of 5	1

SEARCH ENGINE	TERM	ARTICLES THAT MET 1ST CRITERIA AT ABSTRACT LEVEL	ARTICLES THAT MET 2ND CRITERIA AT ABSTRACT LEVEL
	special inclusive education		
ProQuest	evidence based inclusive special education	4 of 50	1
	evidence effective inclusive education policy	6 of 50	0
	international studies in trends special inclusive education	4 of 50	2

NUMBER OF TOTAL ARTICLES	NUMBER OF TOTAL ARTICLES WITHOUT REPEATS
20	17

These themes included:

ARTICLE CATEGORIES	NUMBER OF STUDIES
Teacher beliefs	5
Classroom placement	4
Identification practices	2
Interventions	1
Social inclusion	1
Educational assistants	1
Whole school focus	1
Market influences	1
Country policy comparisons	1
Total	17
Subtract missing articles = total	**16**

The following trends were included in the final review: teacher beliefs, classroom placement, and identification processes. Eleven articles were included.

TOPICS SELECTED DUE TO MULTIPLE FINDINGS	NUMBER
Teachers	5
Classroom placement	4
Identification practices	2
Total	**11**

RESULTS

Inclusion is an important aspect of current educational literature. After running the systematic review of evidence in search for barriers to and strategies for supporting inclusion, three important trends emerged. In brief, trends included teachers' beliefs and attitudes towards inclusion, placement of students with SEN in congregated versus integrated classrooms and dilemmas around identification processes for students with SEN.

Tables 20-22 present the synthesis of results extracted from the systematic review of evidence.

Table 20: Teachers' Beliefs and Attitudes around Inclusion and Disability

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Cook & Cameron, 2010	The validity study aimed to evaluate whether teacher concern and rejection ratings correlated to the rate of engagement in individual, instructional-academic or non-behavioral interactions. The comparative study sought to determine whether inclusive teachers' concern or rejection responses towards students varied by student disability.	Validity Study: Teachers in inclusive classrooms rated their attitudes towards students either by concern or rejection. Teachers' attitudes were correlated to observational data on teacher-student engagement in the classroom. Comparative Study: Teachers in inclusive classrooms rated their attitudes towards students either by concern or rejection. Responses were correlated to student exceptionality type. A statistical analysis was conducted.	Teachers' ratings of concern towards students were positively and significantly correlated to the rate of individual, instructional-academic interactions. Teachers' ratings of rejection were positively and significantly correlated to individual, non-instructional-behavioral interactions. Teachers responded with greater concern ratings for students with learning disabilities (LD), cognitive disorders (CD), attention deficit disorders, and behavior disorders (BD) than students without identified disabilities. Teachers responded with greater rejection ratings for students with LD and BD than students without identified disabilities. Teachers also responded with greater rejection ratings for students with BD

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
			over students with CD.
Haq & Mundia, 2012	The aim of the study was to compare the attitudes of pre-service teachers towards identified disabilities and inclusion by program of study (Bachelor of Arts in Education or Bachelor of Science in Education) as well as by gender.	Researchers implemented a field survey and collected results from 89 pre-service teachers. Questions looked at attitudes towards inclusion and various disabilities.	Results indicated that participants' attitudes towards inclusion were generally positive. However, participants indicated that they preferred to include students identified with physical, learning, and health exceptionalities over students identified with visual, mental, or multicategory exceptionalities. Students with either behavioral or communication disorders were borderline positive for inclusion. There were no significant gender differences. Pre-service teachers from the Bachelor of Arts in Education Program were slightly more favorable towards inclusion and towards various disabilities, but the differences were not significant.
Ben-Yehuda Leyser & Last, 2009	This study set out to explore "the effectiveness of social inclusion of students with special educational needs (SEN) by examining the educational beliefs, and practices of teachers identified as successful inclusion educators" (p. 21).	The study had two phases: 1) interviews with 4 teachers; 2) a study of 24 teachers including an evaluation of whether they were effective in promoting social inclusion of students with disabilities. For this study, 782 students completed a sociometric questionnaire.	Teachers, who were shown to successfully socially include students, held an interest in the students' background, maintained close communication with parents, held high expectations for students, and provided support for students to facilitate success. Successful teachers also believed in the full inclusion of all students with disabilities except for students who had severe cognitive or behavioural challenges. Successful teachers were highly co-operative and collaborative with special education

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
			teachers as well as demonstrated personal attributes of “sensitivity and giving” (p. 30).
Forlin, Loreman, Sharma & Earle, 2009	An international comparative study seeking to uncover “the impact of teacher education focusing specifically on preparing pre-service teachers to work in inclusive regular classrooms, on their sentiments towards people with a disability, and their attitudes and concerns about inclusive educational practices” (p. 197). Special attention to demographic differences is considered as well.	Using a four-part measurement instrument, 603 pre-service teachers were polled across Canada, Hong Kong, Singapore, and Australia. Although all teachers were preparing to teach in regular classrooms, teachers in Australia, Hong Kong, and Singapore enrolled in coursework specific to meeting the needs of a diverse student body. The pre-service teachers in Canada, had this course work infused throughout various aspects of its curriculum. The instrument was implemented both during first and last lectures of the specific unit on inclusion. For Canadian pre-service teachers, the instrument was implemented at the beginning and end of their program.	Both confidence and knowledge around relevant legislation and policy significantly improved. Attitudes around inclusion improved, discomfort in engaging with students with special needs was reduced, and pre-service teachers’ concerns around meeting the needs of diverse learners were also reduced. Demographic variables such as previous qualifications, training and teaching experience correlated with the greatest degree of change. Pre-service teachers without an undergraduate degree or who already held a post-graduate degree demonstrated less likely to experience a change in attitude compared to teachers who possessed an undergraduate degree. Previous training on educating people with disabilities as well as prior teaching experience contributed to more positive and significant outcomes around attitudes even if change was at the same rate. Age and gender differences of pre-service teachers were not significant.

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Chiner & Cardona, 2012	The study looked to uncover what factors may contribute to teachers' perceptions and attitudes around inclusion. Guiding research questions included whether "regular education teachers have positive perceptions of inclusion in Spain?" (p. 5) and whether these perceptions vary by teaching role, experience, and gender as well as skills, available time, resources, and supports.	This study included 336 randomly selected regular education teachers from Alicante, Spain who were given the 'Teachers' Perceptions on Inclusion Questionnaire". The survey included 12 items regarding teaching strategies and conditions.	Of the participating teachers, 84% felt that inclusion developed tolerance and respect for differences; 65% supported the principles of inclusion; and 59% felt that segregating students based on disability was unfair. Only 40% thought it possible to include students with moderate to severe impairments and only 30% thought inclusion could work in the secondary school panel (results pg. 8). The majority of teachers cited not having enough time, skills, or resources to implement inclusion. Less than half of the teachers cited insufficient support from special education or specialists. Differences in perceptions of inclusion varied by grade taught but not by teaching experience or gender. Access to time, resources, or teaching skills did not affect teacher perceptions on inclusion.

Table 21: Classroom Placement: The Debate between Congregated and Integrated Placements for Students with SEN

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Giota, Lundborg & Emanuelsson, 2009	The aims of this study were to understand the ways and methods in which special education support was being implemented in comprehensive schools. It also aimed to explore the relationship between special education and student characteristics and academic achievement in Grade 9. The study looked at the evolution of special education delivery and structure.	The study sample drew from nationally representative cohort studies (roughly 35, 000 people born in 1972, 1977, 1982, and 1987) (p. 561). Data was collected by Statistics Sweden over 29 years.	Special education continues to be implemented extensively within compulsory schooling. The study also confirmed "the allocation of support is clearly more related to factors other than ability/intelligence only" (p. 572). Students who are male, who have parents with low educational attainment, and non-Swedish students are more likely to be over-represented as recipients of special education. Most students received specialized support in inclusive forms and for short periods of time. Inclusive forms of support have risen. Exclusive and intensive forms of special education are more likely to be received when students are in Grades 4 and 5. The degree of special education support received had a negative correlation to achievement. The more extensive and earlier the intervention, the less likely students were to reach similar levels of academic achievement as their peers who did not receive the intervention. This is particularly evident in 'segregated' forms of support. Special education does not appear to be able to address the sub-optimal preconditions facing students who are struggling to learn.

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Fore III, Hagan-Burke, Burke, Boon & Smith, 2008	"The purpose of this study was to examine classroom placement, inclusive versus non-inclusive, relative to the academic performance of students with specific learning disabilities in secondary content area classrooms" (p. 55).	"Fifty-seven high school students with learning disabilities were assessed using the Grade Level Short Form of the *Multilevel Academic Survey Test* (MAST). Their reading and math scores were examined relative to each student's grade level, number of general and special education classes attended, and types of placement (i.e., inclusive or non-inclusive setting)" (p. 55)	"The results revealed no statistically significant evidence to indicate that students' academic achievement varied based on inclusive versus non-inclusive placement. The only statistically significant differences observed regarded participants enrolled in a general education literature class compared to those participants placed in a special education setting for literature" (p. 55). Findings are consistent with other research that suggests that academic achievement did not correlate with class placement. Although results also suggest that students in more inclusive settings glean better academic outcomes, the effect size was small and authors caution against reading too much into it.
Myklebust & Batevik, 2009	This study investigated whether being taught in a congregated or integrated classroom effects future occupational outcomes for students with SEN.	The analysis was based on a longitudinal study (10 years) where 373 Norwegians were interviewed and surveyed. Schools participating in the study had varied approaches to placing students in either integrated or congregated classrooms. Allocations of placement based upon perceived ability only represented a trend and was	Of students identified to have skills on the highest half of the functional scale and who were taught in both special and integrated classes, 54% were able to establish economic independence. Of students identified on the lower half of the functional scale, only 26% who were taught in special classes were economically independent compared to 55% who were taught in integrated classes. Of students who obtained competence, students taught in integrated classes were more likely to be economically independent (4% difference). Students who did not gain competence were less

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
		not a constant therefore linking class placement to future employment could be tested.	likely to be economically independent particularly if taught in a special education class (difference of 20%). Of students taught in either special or integrated classrooms who obtained a driver's license, 58% were able to find gainful employment. However, only 6% of students who did not acquire a driver's license and were taught in a special education class became economically independent compared to 41% of students who did not obtain a license but were taught in an integrated class.

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Ruijs, Van der Veen, & Peetsma 2010.	"This study investigated whether there is a relation between inclusive education and the academic achievement and socio-emotional functioning of typical students, and, more importantly, whether inclusive education affects the achievement and socio-emotional functioning of more and less intelligent typical students differently. Furthermore, we investigated whether differences occur by type of SEN of the included students. Here, we made a distinction between students with behavioural, cognitive and other problems" (p. 351)	"Language and arithmetic tests were used to assess academic achievement. For socio-emotional functioning, both teacher and student questionnaires were used. A non-verbal IQ test was used to assess student intelligence. Based on the number of students with diagnosed SEN, the students without SEN were divided into several groups: typical students with no, a few and more than a few students with (certain types of) SEN in their class. Multi-level regression analyses were used to compare these groups" (p. 351).	"For academic achievement, no differences were found between students without SEN in inclusive and non-inclusive classes. In this, we found no emotional functioning, some differences were found, but the practical importance of these differences is unclear, since the effect sizes were small. The functioning of typical students does not meaningfully differ by type of SEN of the included students" (p. 351). There appears to be "no relation between inclusive education and the academic achievement of typical students" (p. 385). Aside from minimal increases in student-reported-confidence for typical students taught in inclusive classrooms, the study was not able to determine any affect on typically developing students in inclusive classrooms.

Table 22: Identification of Students with SEN

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Lebeer, Struyf, De Maeyer, Wilssens, Timbremont, Denys & Vandeveire, 2010	"This paper reports a field test of a new system of Graded Learning Support Classification Matrix to determine special educational needs (SEN) in a more systemic way, proposed by the Belgian Ministry of Education (Flanders Region), to put a barrier to the trend of referrals to special education schools. It is not directly determined by a child's medical diagnosis, but suggests SEN to be a product of the needed level of curricular adaptation and classroom support, and the child's broad category (cluster) of functional difficulties" (p. 375).	"A sample of 8648 pupils (aged 2.5-18) from regular and special education was assigned into the new matrix by collaborators of all 73 Centres for Pupils' Counselling (CPC), according to a new criteria. Data were compared with current allocations" (p. 375).	According to the new framework, 20% of primary school age children have some form of SEN (4 times higher than previously reported). In terms of developing a greater understanding of funding needs and government resources, the authors suggest implementing this new framework based upon children's characteristics and the extent of required curricular adaptation. The authors suggest that adopting this new framework moves away from the current psychometric approach to special education and adopts a social model of disability.

SOURCE	OBJECTIVE	DESCRIPTION OF STUDY	OUTCOMES
Norwich, 2009	"The aim of the overall study was to examine the perspectives of education practitioners and policy makers in specific school systems in the UK (England), the USA and the Netherlands about recognizing and resolving the three dilemmas of difference in relation to special and inclusive education. A secondary aim was to compare these perspectives with those from similar groups in the UK and the USA from the early 1990s" (p. 449). The three dilemmas of difference identified by this study are whether or not identification of SEN should happen and how, the relevance of a common curriculum, and questions around integrated or segregated placements.	This study was based on a larger comparative study looking at perspectives of difference drawn from 132 policy writers and education practitioners across England, the USA, and the Netherlands. "Participants were interviewed on a presented dilemma about the consequences of identifying children as having a disability or a special educational need" (p. 447).	Results indicated that 78% of US participants, 85% of participants from the Netherlands, and 74% of participants from England had some recognition of the dilemma around identifying students with special needs. All but three US participants felt there was a possible resolution to the dilemma around identification. "The most frequent resolution rating was significant across all three participants groups – 38% for the USA, 48% for the Netherlands, and 32% for the English participants" (p. 454). Similarities drawn from the study regarding possible resolutions were: "reducing special education identification, adopting national and local developments to improve the general education system to become more inclusive and findings ways to go beyond negative labels" (p. 464).

DISCUSSION

Teachers' Beliefs and Attitudes around Inclusion and Disability

Five studies reviewed for the systematic review of evidence highlighted teachers' perceptions and beliefs around inclusion. Two studies (Haq et al., 2012; Chiner et al., 2012) looked specifically at both pre-service and regular teachers' attitudes on inclusion and disability. Both studies uncovered that generally participants held a positive attitude on inclusion and agreed that the practice of inclusion was instrumental in developing tolerance and respect for difference as well as a more just approach to disability. Three of the five studies (Ben-Yehuda et al, 2009; Cook, et al., 2010; Haq et al., 2012) demonstrated that although teachers supported inclusion, they often held reservations regarding including students perceived to have more moderate to severe impairments.

Many teachers were concerned about not having enough time, skills, or resources to fully meet the needs of students perceived as having greater challenges. Concerns also emerged around lack of collaboration and support from special education educators or specialist staff. Cook et al. (2010) demonstrated how teachers were more likely to be open to supporting students with significant learning challenges or disabilities so long as students were agreeable and behaviour was not an issue. However, Forlin et al. (2009) were able to determine that with training and opportunity to engage in issues facing people with disabilities through pre-service teaching programs, teachers develop both confidence and knowledge towards tackling inclusion.

Classroom Placement: The Debate between Congregated and Integrated Placements for Students with SEN

The debate continues to wage over how and where students with SEN participate in their education. Rights and social justice advocates insist that full inclusion is the only option, whereas medical and educational specialists often see the benefits to intensive, treatment based settings and programming. The debate often leaves parent groups and students torn between what forms of education are best suited to their needs and objectives. The four studies (Giota et al., 2009; Fore III et al., 2008; Mycklebust et al., 2009; Ruijs et al., 2010) focusing on classroom placement presented varying aspects of this debate with an overall leaning towards pushing for inclusive education as the most viable option for students with SEN. Giota et al. (2009) uncovered similar demographic distributions as earlier presented in the TDSB (Brown & Parekh, 2010). Giota et al. (2009) also noted that achievement for students receiving more intensive forms of special education interventions did not reduce the gap between students with and without SEN. The authors note that there is no way to know the extent of the gap without interventions (possibly a great deal more disparate) however, they also conclude that special education does not have the ability to address many of the underlying issues that impede academic achievement.

Comparative studies (Fore III et al., 2008; Mycklebust et al., 2009; Ruijs et al., 2010) investigated the extent of advantage or disadvantage in congregated versus integrated placements. These studies determined: 1) students with learning disabilities held similar levels of achievement in both integrated and congregated settings; 2) students without SEN did not experience advantage or disadvantage by having students with SEN in their classrooms, and 3) that controlling for functional ability, students taught in integrated classrooms were significantly more likely to become economically independent in the future. Although none of the studies included in this review heralded significant academic or socio-emotional advantages for either students with or without SEN (with the exception of significant future economic security), the studies concluded that the interventions offered in segregated programming did not demonstrate positive impact on student learning.

Identification of Students with SEN

The two studies (Lebeer et al., 2010; Norwich, 2009) explored the dilemma of identification of students with SEN. Norwich (2009) suggested that in order to address the dilemma between stigma and acquiring resources can be somewhat resolved through the reduction of identification processes, by moving towards inclusion with the support of federal and local developments, and through addressing attitudinal barriers in reducing stigma. Lebeer et al.'s (2010) study supported these resolutions by proposing a new framework for identifying students with SEN that broadens the definition of SEN and places onus on educators to provide accommodations in the classroom and to reduce referrals of specialized, segregated schools.

CONCLUSION

Overall, results from the systematic evidence review support an inclusive model of education for students with SEN. Outcomes resulted in positive economic security for included students with SEN. Also, results did not reveal any negative outcomes for students without SEN taught within inclusive environments. Teachers were generally supportive of inclusion and results demonstrated that with support, training and knowledge, teachers felt more confident in tackling the inclusive classroom. New approaches to identification could also support the move towards an inclusive model of education where greater numbers of students are accommodated in their home schools and classrooms. In light of the absence of any positive outcomes reported for segregated programming, the results of this review should be considered in the development and evaluation of policy concerning placement and identification in the TDSB.

FINAL THOUGHTS

The TDSB has recently identified the inclusion of students with Special Education Needs as a critical piece in addressing issues of equity and in fostering positive learning opportunities for all students. The TDSB's 2012-13 Board Improvement Plan incorporates transition planning for students with SEN as well as goals to increase engagement levels for those students, both within the school and throughout the Special Education process. In addition, the Teaching and Learning as well as the Special Education departments are keen to establish reviews regarding the impact of systemic bias and streaming. The TDSB is committed to addressing inequities across student demographics within Special Education. A shift towards a social model of disability includes greater attention to processes in which disparities occur, and will help to identify opportunities that educators can use to bring about greater equity for all students. Areas that may potentially present as barriers to student success and which require further examination are: programmatic structures (congregated and integrated settings); referral, identification and placement processes; culturally and socio-demographically sensitive approaches to student learning.

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