OTTAWA-CARLETON DISTRICT SCHOOL BOARD

Learning Well-Being Social Responsibility

Review of the Developmental Disabilities Program at Crystal Bay Centre for Special Education and Clifford Bowey Public School

Ottawa-Carleton District School Board

Learning Support Services

12 March 2024

ACKNOWLEDGEMENT

This review took place on the traditional, unceded homelands of the Algonquin nation. In acknowledging the land on which we learn and work, we acknowledge a responsibility to the Algonquin People and a responsibility to honour the Algonquin cultural protocols. We recognize that this territory has been home to the Algonquin People since time immemorial and wish to express our gratitude to the Algonquin nation.

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EXECUTIVE SUMMARY

Scope and purpose of the review
In accordance with the District's process for cyclical review of programs, the Developmental Disabilities (DD) Program review falls under the category of 'Program Monitoring' by the Learning Support Services (LSS) Department. The purpose of this review is to ensure that special education programming, services, supports, and resources continue to meet the changing needs of students at Crystal Bay Centre for Special Education and Clifford Bowey Public School. Information collected as part of this review is intended to inform educational programming and practices at both schools and may serve as a reference for future policy and decision-making.

The review process
The review was conducted using a collaborative evaluation approach whereby program evaluation staff included key stakeholders (i.e., parents/caregivers, specialized program teachers, educational assistants (EAs), administrators, and LSS staff) throughout the various stages of the evaluation. Early in the process, a small LSS interdisciplinary working group was established to guide the development of program review activities. This work was informed by several school council members from Crystal Bay and Clifford Bowey who participated in the development of the parent/caregiver survey and parent/caregiver focus group questions. Their input was also instrumental in planning how best to engage parents/caregivers in the review process.

Throughout the process, parents and caregivers openly and generously shared their experiences of what it is like to raise a child with severe developmental disabilities and complex needs. With honest, and sometimes intense emotion, they described the gains their children have made at school, their frustrations with the system, and their concerns for their children's futures once formal schooling ends.

Special education program and instructional practices
The most common goal for students as expressed by parents, caregivers, staff and administrators is for them to develop skills that will support their independence in life. Essential to meeting this goal is the development of communication skills, personal care skills, and daily living skills. In addition, research supports the inclusion of literacy and numeracy skills in the educational program of students with severe developmental disabilities (DD).

Studies also reinforce the importance of using Differentiated Instruction (DI) and Applied Behavioural Analysis (ABA) instructional strategies to plan and deliver educational programming to students with severe DD. Many educators at Clifford Bowey and Crystal Bay are already knowledgeable and invested in this work, however, a number of them expressed a need for ongoing professional development specific to teaching students with severe DD.

Special education services
Best practice is to offer a transdisciplinary approach to supporting the learning and well-being of students with severe DD and complex health care needs. Both Clifford Bowey and Crystal Bay are using this approach with the support of LSS specialist teachers and LSS professional staff as well as community-based professionals.

Facilities
Crystal Bay and Clifford Bowey provide students with a physical environment that, over the years, has evolved in response to the complex needs of its students. For example, both schools have interactive playgrounds with specialized equipment and each school has a Snoezelen Room. However, the majority of classrooms are smaller in size than the average size of classrooms in community schools and there was agreement among the participants in the review that classrooms have become crowded. One of the main reasons is the amount of specialized equipment needed to support the learning and well-being of students.

Safety
Of primary importance to parents and caregivers is the safety of their children. The majority of students who attend Crystal Bay and Clifford Bowey are non-verbal and have a dual diagnosis, meaning they have both a developmental disability and a diagnosis of autism. Most students are still learning to communicate their thoughts and feelings and many lack safety awareness. Parents/caregivers trust that their children are safe at Crystal Bay and Clifford Bowey and supported by staff and administrators who have the training and expertise to meet their significant learning and safety needs.

Identity
The families of students at the two schools are ethnically and linguistically diverse. Considering that disability is also part of identity, these findings highlight the intersectionality of students' identities and provide a starting point for further understanding.

The collection of identity-based data and perceptual data will allow the District to better know which students are represented in the DDP at Crystal Bay and Clifford Bowey and the intersection of their identities. This has implications for future work in areas such as program monitoring, parent/caregiver voice, and resource allocation.

Inclusion
Ideologically, many parents and caregivers recognize the benefits of inclusion and the participation of their children in the broader community. However, during the review concerns were expressed about the ability of staff in community schools and regular classrooms to understand their child, develop and deliver a program for them, and be responsive to their child's learning and behavioural needs. Concerns were also expressed about the delivery of professional services in a community school setting and whether they would continue to receive the same level of support.

More system-based intentional work across the District is needed to address ableism and understand the benefits of inclusion. The historical establishment of specialized program schools and congregated special education classes has contributed to a culture that has struggled to adopt inclusive practices.

Conclusion

Overwhelmingly, parents and caregivers value and appreciate the safe learning environment, educational programming, relationships with school staff, and the special education services at Crystal Bay and Clifford Bowey. For these reasons, parents continue to believe that Crystal Bay and Clifford Bowey are the best places for their children to learn.

Both Clifford Bowey and Crystal Bay provide specialized environments that focus on the learning needs of students with severe DD, dual diagnosis, and complex health care needs. As such, they continue to occupy an important place in the Ottawa-Carleton District School Boards (OCDSB) continuum of programs, supports and services. That said, the District must respect that not all families want their child to be educated in a segregated school setting. The OCDSB must ensure that educators and administrators in community schools are supported in welcoming all students to school, regardless of their special needs, and empower them with the knowledge and training to make inclusion meaningful and effective.

The staff and administrators at Crystal Bay and Clifford Bowey offer valuable lessons to the rest of the District, especially the positive impact of caring relationships on student learning, strength-based instructional approaches, and collaboration.

INTRODUCTION

Purpose
The purpose of this review is to examine the special education programming, services, supports, and resources at Crystal Bay Centre for Special Education and Clifford Bowey Public School to ensure they continue to meet the needs of students at both schools. The findings, and recommendations for consideration, contained in this report are intended to inform educational programming and practices with the goal of improving student learning and achievement. They may also serve as a reference for future policy and decision-making.

Terminology
Throughout this document the term severe developmental disabilities (DD) will be used as an umbrella term to refer to students with severe intellectual disabilities, autism spectrum disorder, and/or multiple disabilities.

Scope of the Review
In June 2022, Ottawa-Carleton District School Board (OCDSB) senior staff approved a plan to review the Developmental Disabilities Programs (DDP) at the two specialized program schools, Crystal Bay Centre for Special Education and Clifford Bowey Public School. The review was undertaken as part of the cycle of program monitoring by Learning Support Services (LSS) under the supervision of the Superintendent of LSS. Areas of exploration include educational programming, supports and services, and facilities. The review does not include DD program classes located in community schools (i.e., semi-integrated DD program classes).

Legal and Policy Framework
Education is a highly regulated environment and school boards in Ontario are responsible for ensuring their policies and procedures reflect and comply with Ministry of Education legislation and other legal obligations.

The legislation that governs the operation of schools and the delivery of special education in the province of Ontario is the Education Act, its regulations, as well as Ministry of Education policy/program memorandum and policy documents. For example, the types of placements that may be considered for students with special education needs, the maximum enrolment in special education classes, and the Identification Placement and Review Committee (IPRC) process for considering placement in a special education class. The following chart lists the range of placements an IPRC may consider:

Table 1: Ministry of Education Placements

Placement	Description
Regular class with	The student is placed in a regular class for the entire day,

indirect support	and the teacher receives specialized consultative services.
Regular class with resource assistance	The student is placed in the regular classroom for most or all of the day and receives specialized instruction, individually or in a small group, within the regular classroom from a qualified special education teacher.
Regular class with withdrawal assistance	The student is placed in the regular class and receives instruction outside of the classroom for less than 50 percent of the school day from a qualified special education teacher.
Special education class with partial integration	The student is placed by the IPRC in a special education class where the student-teacher ratio conforms to the standards in Regulation 298, section 31, for at least 50 percent of the school day, but is integrated with a regular class for at least one instructional period daily.
Special education class full time	The student is placed by the IPRC in a special education class, where the student-teacher ratio conforms to the standards in Regulation 298, section 31, for the entire school day.

Another guiding policy document was recently revised by the Ontario Human Rights Commission (OHRC). In 2018, the OHRC released its updated *Policy on accessible education for students with disabilities*. The policy addresses a number of areas including the obligation for education providers to "design their facilities, policies and procedures more inclusively." The new policy also speaks to the "concept of intersectionality" - the notion that students who identify with a disability may also identify with one or more protected grounds under the Ontario Human Rights Code (e.g., race, ancestry, sexual orientation, etc.). Importantly, the policy is also intended to help individuals and families understand their rights and responsibilities under the Ontario Human Rights Code.

The OCDSB Service Delivery Model

The OCDSB's policy on special education programs and services describes the District's service delivery model, guiding principles, and key learning supports for students with special needs. The OCDSB's service delivery model is rooted in the principle of Universal Design for Learning, the tiered approach to intervention, and culturally relevant and responsive pedagogy. Specifically, the model is based on a continuum of programs and services with placement options ranging from a regular class with indirect support to special education classes and two special education schools, namely, Crystal Bay Centre for Special Education and Clifford Bowey Public School.

The goal is to help every student meet their full potential, while fostering the highest level of inclusion and independence possible for each student. Essential to

understanding the strengths and needs of each student is collaboration with parents/caregivers and, whenever possible, the student themselves (Special Education Plan 2021-2022, pg. 8-9).

Before placement at either Crystal Bay or Clifford Bowey is considered, parents/caregivers are consulted and professional assessment data is gathered (e.g., psychological, educational, speech-language, classroom-based). The assessment data is reviewed by multidisciplinary teams to determine whether the student fits the criteria for the DD Program based on their cognitive profile matching specifications for intellectual disability; academic profile requiring an alternative educational program (i.e., one not based on the Ontario curriculum); adaptive/daily living profiles that are moderate to severe, as well as communication/language needs, social/emotional needs and consideration of any medical needs.

Background and Current Context

The OCDSB has two congregated specialized program schools for students with moderate to severe developmental disabilities which were opened in the 1970s. Crystal Bay Centre for Special Education was founded in 1972 and mainly serves students from the District's west end. Clifford Bowey Public School opened in 1970 and most of its students live east of the Rideau River. The school has an adjoining swimming pool that is accessible to students during the school day and is managed by the City of Ottawa in partnership with the OCDSB.

It should be noted that each school has a Snoezelen room. A Snoezelen room is a multi-sensory environment that incorporates light, sound, and tactile experiences which students explore at their own pace. The benefits include relaxation, improvements in self-regulation, and opportunities for engagement with staff.

Since they were first established, the profiles of students at Crystal Bay and Clifford Bowey have become more complex. Anecdotal reports from staff who have worked at the schools for over 25 years suggest that, in the past, students at both schools were more independent, able to participate in cooperative education in the community with limited support, and fewer students had complex communication needs. Significantly, over the past 10 years, there has been an increase in the number of students who have severe developmental disabilities, are non-verbal, and/or have complex health care needs.

Unlike most students in the District, the students at Crystal Bay and Clifford Bowey are working almost solely on alternative programming. Alternative expectations are not part of the Ontario curriculum and are based on individual students' strengths and needs. The alternative learning expectations for each student are documented on their Individual Education Plan (IEP).

Specialized equipment is also part of a student's IEP. As students' needs have become more complex, there has also been an increase in the amount and types of specialized equipment students use daily in order to attend school and/or access and demonstrate their learning. Although not an exhaustive list, examples include specialized seating

and desks, sensory equipment, devices and/or technology for communication, and equipment to support students with physical disabilities. Students may have several pieces of adaptive equipment and/or assistive devices and this is often the case for students who have complex health care needs.

Administratively and operationally Crystal Bay and Clifford Bowey are part of the elementary panel. For the 2022-2023 school year, each school was assigned one principal, a 0.5 full-time equivalent (FTE) vice-principal, one Learning Support Teacher (LST), and 0.25 FTE Learning Resource Teacher (LRT). Classes are staffed with teachers who hold special education qualifications with the minimum qualification being Special Education Part 1. Also, each class is assigned three educational assistants (EAs) with additional EAs allocated to support students with medical and other high needs.

There are presently 12 classes at Crystal Bay and 13 classes at Clifford Bowey, and each class has a maximum enrolment of eight students. Students are organized into kindergarten/primary, junior, intermediate and senior classes with special consideration given to each student's profile and individual needs (e.g., mobility, medical support, etc.).

Although the teacher to student ratio at both schools is 1:8, this differs from the maximum class size ratio of 1:10 described in Regulation 298, section 31, of the Education Act. The Act states that "a special education class established for students identified with "developmental disability" has a size limit of 10 students." Importantly, a key consideration in determining the maximum enrolment in a special education class is whether the class has been established to address the needs of one particular exceptionality (Bowlby, Peters & Mackinnon, pg. 44).

Other than special education classes provided by school districts in Ontario, options for students with severe DD and physical disabilities are limited. Provincially, a few programs do exist and they are administered by school authority boards that provide a combination of educational and therapeutic programs for students who have a primary diagnosis of a physical disability and other associated complex needs. In this region, The Children's Hospital of Eastern Ontario (CHEO) School offers a kindergarten program and, in Toronto, Bloorview School offers a program for students in kindergarten and grade one. Therapy goals for students who attend these schools generally focus on occupational therapy, physiotherapy, and speech and language therapy. Each school authority has unique eligibility criteria for students. For example, to be eligible for CHEO School, students must demonstrate the potential to access the Ontario curriculum. Bloorview School also bases students' educational goals on the Ontario curriculum, however, to be eligible for their program, students must also demonstrate the ability to use a communication strategy to indicate yes/no responses and make choices. Since students with severe intellectual disabilities and physical disabilities may not be developmentally ready to work on Ontario curriculum, nor be using a communication strategy yet, they may not meet criteria for either school.

Previous Reviews

In 2001, the OCDSB Quality Assurance Division (now Research, Evaluation and Analytics Division) published a report entitled *Review of Programs/Services for Students with Developmental Disabilities*. The review took into consideration all students identified with the exceptionality of DD. The report examined a number of areas including; student needs, delivery models, curriculum and facilities.

At the time of the 2001 DD review, the teacher to student ratio at the specialized sites was 1:8. The report mentions that "Student ratios have changed at the specialized schools as a result of harmonization following amalgamation." Since the amalgamation of the Ottawa Board of Education and the Carleton Board of Education occurred in 1998, this suggests the change in ratio from 1:10 to 1:8 occurred around that time (pg. 48).

Overall, the recommendations were fairly broad and only three recommendations were specific to Crystal Bay and Clifford Bowey:

- "Maintain the two specialized facilities (i.e., Crystal Bay Centre for Special Education and Clifford Bowey Public School);
- Reconsider the appropriateness of its 1:8 ratio for teacher staffing to reflect the needs of the populations at the specialized sites;
- Reconsider the allocation formula for the calculation of vice-principal time in the specialized sites" (pages v and vi).

A more recent DDP Review was done in 2010. It focused on a representative sample of DD programs at four elementary schools, four secondary schools, and several classes at Crystal Bay and Clifford Bowey. The review looked at K-12 students whose first or second exceptionality was DD. It used anonymous surveys of teachers and EAs, classroom observation by the reviewer, consultation with LSS staff, and central and Ontario Student Record data. No mention is made of parent/caregiver consultation (OCDSB Report No.10-185 to Education Committee Re: Developmental Disability Program Review, 15 November 2010).

The majority of recommendations dealt with areas such as the integration of semi-integrated DD program students, professional development for teachers and EAs, school resources for student assessment and evaluation, and system accountability (i.e., Quality Program Indicators and IEP audits). However, the report concluded that based on the high communication, social, and behavioural needs of students at Crystal Bay and Clifford Bowey, and given the specialized skills of staff at these schools, it would be difficult to create the same learning conditions within community schools.

Collaborative Approach to Review Activities

The current review process was based on a collaborative evaluation approach whereby the program evaluation team worked with key stakeholders at all stages of the evaluation process. Throughout the process, there was an emphasis on parent/caregiver participation, transparency and accountability.

An interdisciplinary working group met regularly to oversee and guide the process and to provide input into the development of review related activities. Members of the working group included the LSS Program Evaluation Officer, the Supervisor of Speech/Language Pathology, the Learning Support Consultant for DD programs, the school psychologist for the specialized sites, and the project lead (Revised Report No. 22-047 Review of DDP at Crystal Bay and Clifford Bowey 2022-2023).

Working group meetings included the participation of parents from Crystal Bay and Clifford Bowey School's school councils who provided valuable feedback on the parent/caregiver focus group questions and the parent/caregiver survey. Parent consultation at these meetings was also instrumental in addressing how best to engage parents/caregivers in the review process (Memo 22-116 Update on the Review of the DDP at Crystal Bay Centre for Special Education and Clifford Bowey Public School).

Throughout the review process regular meetings were held with the Superintendent of LSS and updates were provided to the two school principals, the two school councils, and the Special Education Advisory Committee (SEAC). Consultation with the Human Rights Equity Advisor and Multicultural Liaison Officers also informed the work.

Information Collection

To understand the influence of current programs and services, a combination of descriptive quantitative data and qualitative data was collected throughout this review. Combining quantitative and qualitative data collection methods is called a mixed methods approach (see Creswell, 2009). The mixed methods strategy for this evaluation took a concurrent approach to data collection and analysis. Creswell (2009) explains the concurrent mixed methods approach:

> procedures are those in which the researcher converges or merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In this design, the investigator collects forms of data at the same time and then integrates the information in the interpretation of the overall results (p.14).

Quantitative data collection provides numerical data in terms of student population (e.g., by grade and gender) and qualitative data offers insights into ratings and perspectives of the main program stakeholders (i.e., parents and caregivers, teachers, EAs, vice-principals and principals).

Data gathered centrally from the District's student information system (i.e., ASPEN) and IEP Online (IOL) databases were used to collect students' exceptionalities, strengths and needs, gender, and representation by grade level. This data was aggregated to ensure student identity remained anonymous.

Further, a range of data collection activities were conducted throughout the program review to gather information and perspectives for understanding the programs and services provided at the two schools. Based on suggestions from school administrators and the parent working group members, anonymous surveys were offered to parents/caregivers as both online and paper options.

The parent and caregiver survey was divided into two sections. Section 1 asked for student and family demographic data including the child's age, racial identity, home language and socioeconomic level. This information helps us understand who is represented in the survey and allows us to explore socioeconomic status and racial identities in relation to perceptions of children's school experiences. In the second part of the survey, perceptual questions were designed to understand parent and caregiver perspectives (e.g., satisfaction, importance, confidence) of their child's educational program, services and supports, and the learning environment.

Translations of the survey were offered for Arabic and Somali parents and caregivers because these were by far the two largest non-English home languages identified by both schools. Prior to the distribution of the parent/caregiver survey, Multicultural Liaison Officers were consulted on the structure of the survey and asked to assist schools with providing support to parents and caregivers.

In addition to the survey, focus group sessions were offered to parents/caregivers. Two sessions were organized for each school - one virtual session and one in-person session. These sessions were facilitated by the Program Evaluation Officer with the assistance of the project lead.

The anonymous online educator survey for teachers and EAs was designed to gather perspectives on the overarching categories of questions asked in the parent and caregiver survey. Similar categories formed the basis of four separate semi-structured interviews which were held with the two principals and two vice-principals of both schools.

Table 2: The Response Rates of Qualitative Data Collection Activities

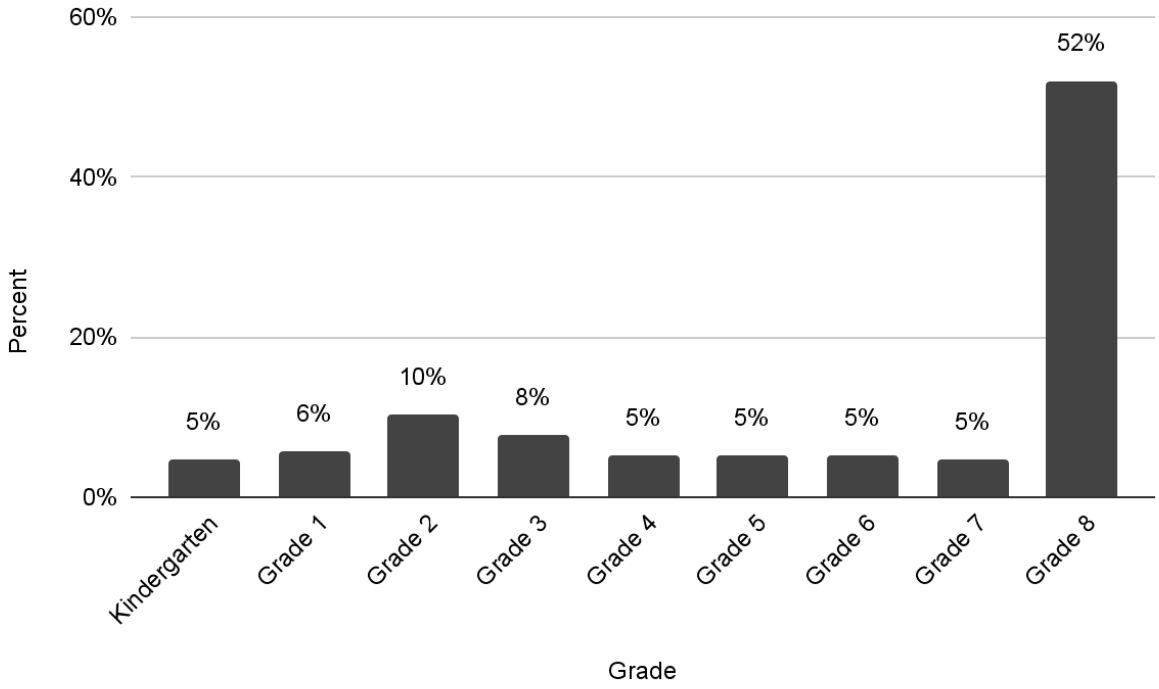
Data Collection Activity	Stakeholder Group Total Population	Number of Respondents	Percent of Responses
Parent and Caregiver Surveys	199	102	51%
Parent and Caregiver Focus groups	199	25	13%
Educator Survey: Teachers	35	22	63%
Educator Surveys: EAs	93	62	67%
Administrator Interviews	4	4	100%

The information collected and included in this report reflects the combined percentages from both schools. This was done to protect the identities of students due to the low number of students enrolled in each school. Results from these data collection activities are reported in ways that do not identify individual students, parents/caregivers, and educators.

Who are the students?
This section provides an overview of the students attending Crystal Bay and Clifford Bowey during the 2022-2023 school year. Centralized data from the District's student information system (i.e., ASPEN) and IEP Online (IOL) were gathered to show the 2022-2023 distribution of students based on grades, gender, students' first and second exceptionalities, and the main areas of students' strengths and needs. Additional information collected from both schools describes the types of support and services students receive on a daily basis. When examined together, this data illustrates the complexity of the student population in these two schools.

School Populations
Students at Crystal Bay and Clifford Bowey range in age from 3.9 years up to 21 years. The 2022-2023 overall student population of both schools is 199 with male students comprising 72% of the population. The graph below illustrates the breakdown of students across grade levels at both schools (see Figure 1, below). Noticeably, students in grade 8 represent a high percentage of the combined school populations. This is because any student who is age appropriate for grade eight and higher grades is designated as a grade eight student in the student information system.

Figure 1: Percent of Students by Grade at Clifford Bowey and Crystal Bay



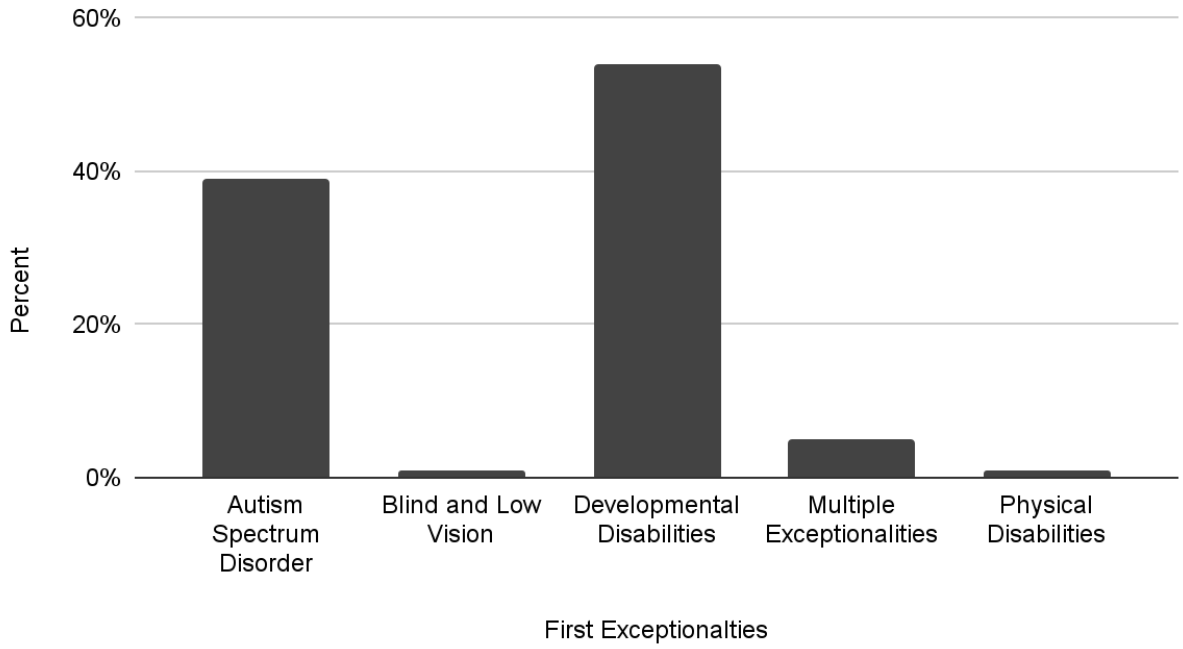
Language Spoken at Home Other Than English
Data from the student information system indicates that English is the most commonly spoken language in students' households. Approximately 31% of households use a language at home other than English with Arabic and Somali being the two most common languages spoken at home. A list of the languages spoken at home other than English is provided below in Table 3.

Table 3: Languages Spoken at Home Other Than English

Albanian	Kirundi	Tamil
Arabic	Nepali	Tigrinya
Bangla	Pashto	Turkish
Bengali	Persian	Urdu
Chin	Somali	Vietnamese
French	Spanish	Yoruba
Georgian	Swahili	

Exceptionalities
As determined through the IPRC process, students may be identified with one or more exceptionalities. In many instances, students at Crystal Bay and Clifford Bowey have two exceptionalities. The first exceptionality for 54% of the student population is Developmental Disability and approximately 40% of the student population have a first exceptionality of Autism. Figure 2, below, shows the percentage of every first exceptionality students at both schools are identified with.

Figure 2: First Exceptionalities of Students at Crystal Bay and Clifford Bowey



Of the students whose first exceptionality is Developmental Disability, 39% have a second exceptionality of Autism. And for students whose first exceptionality is Autism, almost 87% of them have a second exceptionality of DD (see graphs below). These numbers reflect the high number of students with a dual diagnosis (i.e., students with both an intellectual disability and autism).

Figure 3: Second Exceptionalities of Students Whose First Exceptionality is DD

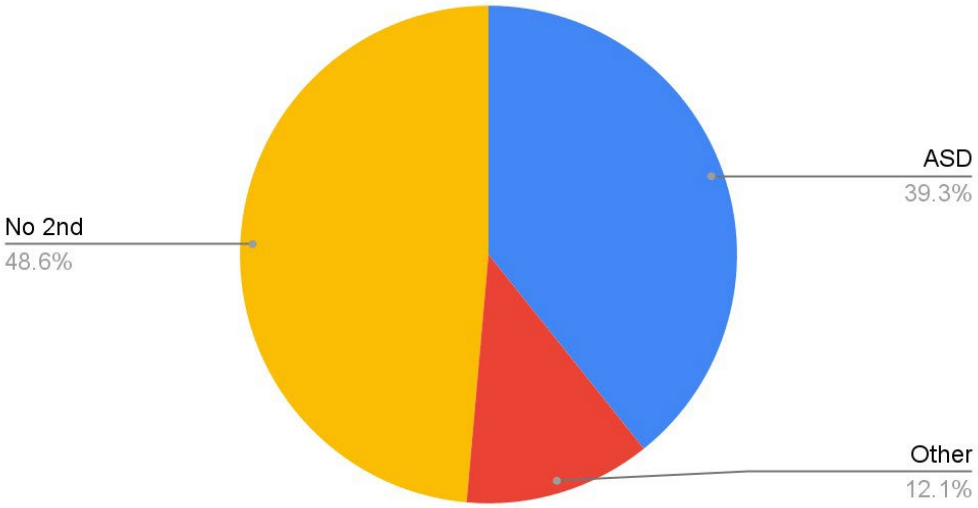
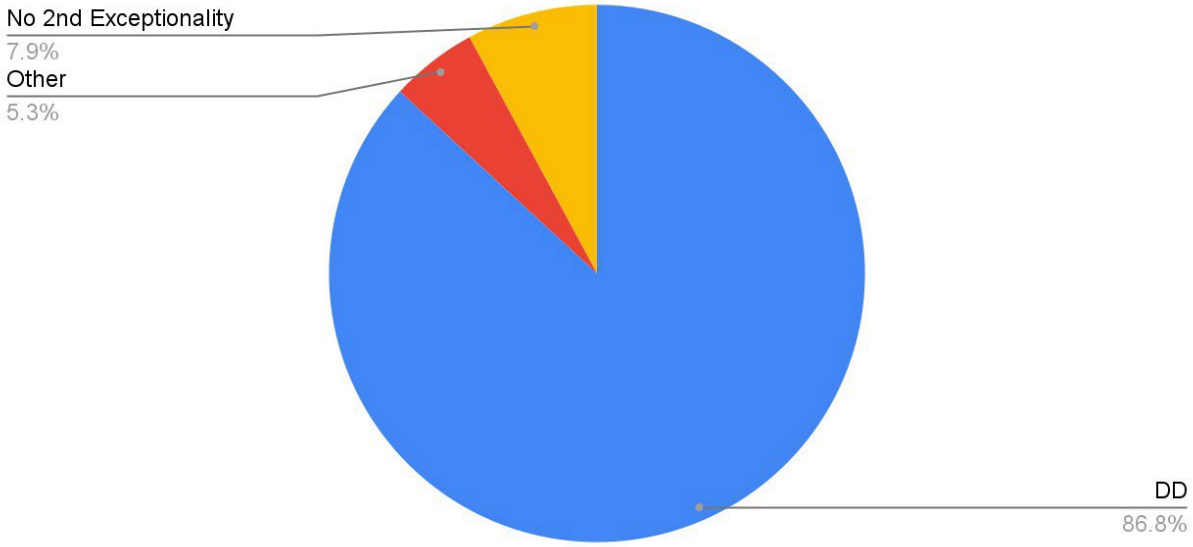


Figure 4: Second Exceptionalities of Students Whose First Exceptionality is Autism



Areas of Strengths and Needs

Each student's IEP includes a section that lists broad categories of strengths and needs based on the student's profile and developed in consultation with parents/caregivers. Data from the IEPs of students at Crystal Bay and Clifford Bowey was gathered to show the major areas of strengths and needs of this population. Figure 5 indicates the major areas of strengths and Figure 6 presents the main areas of needs for students at Crystal Bay and Clifford Bowey for the 2022-2023 school year.

Figure 5: Top 10 Areas of Strengths Listed on Students' IEPs

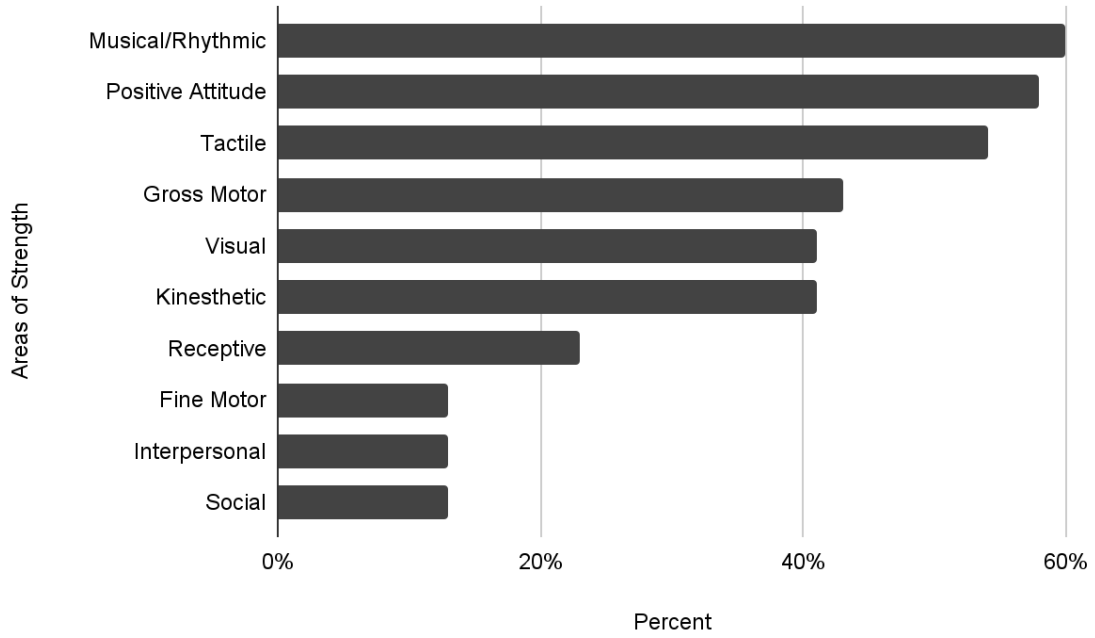
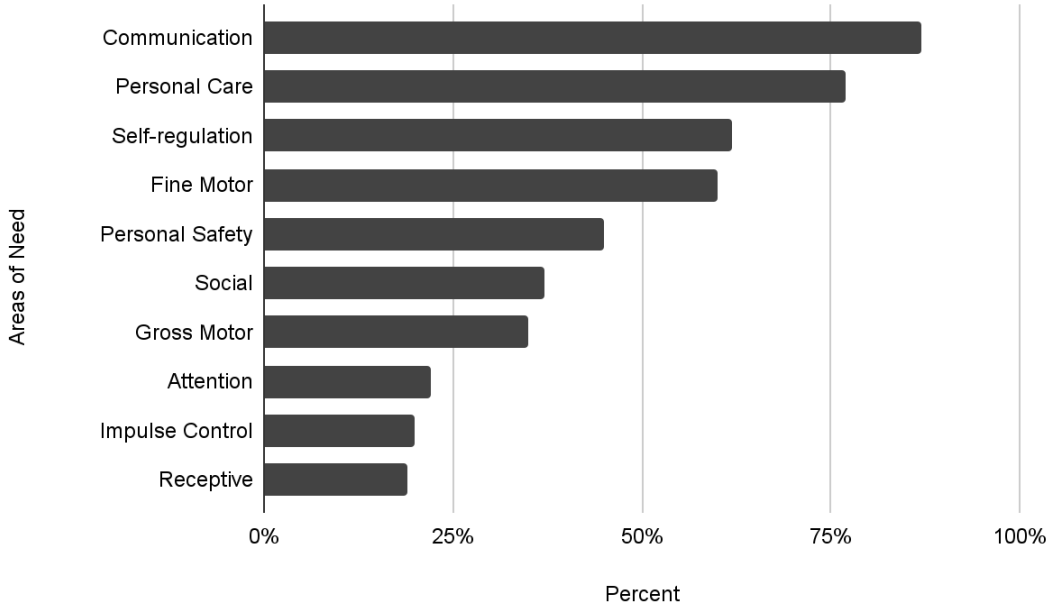


Figure 6: Top 10 Areas of Needs Listed on Students' IEPs



Musical/rhythmic ability and positive attitude are listed as main areas of strengths shared by approximately 60% of students in the two schools. Communication (87% of students) and personal care skills (77% of students) are listed for the majority of the students in both schools as areas of need.

School-based Services and Support
The following section describes the types of services and support students require to meet their safety and daily living needs and thereby enable them to attend school.

Transportation
Students at both schools require staff assistance to disembark from vehicles and safely transition into the school. These same students require assistance at the end of each school day. This assistance includes being escorted to vehicles by staff and ensuring that each student is secured in their seat while taking into consideration their individual safety needs and equipment (e.g., seat belt buckle cover, harness, etc.).

Toileting and Feeding
The majority of students at both schools require assistance with toileting (63%). Specifically, one-to-one support for toileting is required by 49% of students, 12% of students require two staff to assist them with toileting, and 2% of students require assistance for toileting from three staff members. The reasons for the additional support vary based on the individual needs of students, however, they include help with undressing and dressing, personal hygiene, two-person transfers, and the use of mechanical lifts and safety considerations. Staff assistance with feeding is required by approximately 44% of the student population.

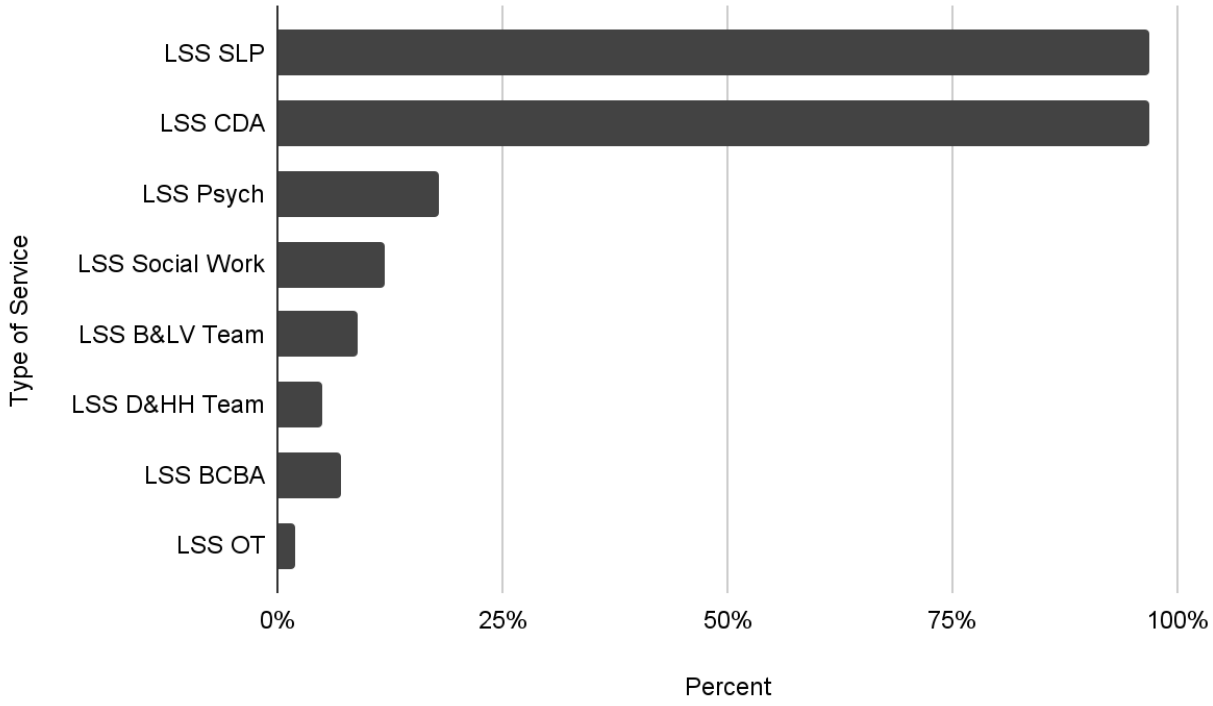
Mobility
Support for student mobility needs ranges from two-person manual transfers, to mechanical transfers, to assisting students who use wheelchairs. Data shows that 11% of students use a wheelchair and 8% of students need mechanical transfers to move from one seating system to another.

Professional Services
Professional services may be provided to students by LSS staff and/or by professionals who are employed by community-based organizations. It is common for students to receive more than one type of professional service at the same time, or over the course of their school years.

OCDSB Services from Learning Support Services (LSS)
The majority of students who attend Crystal Bay and Clifford Bowey require services from LSS speech language pathologists (SLPs) and communication disorder assistants (CDAs). Additional LSS professional services are provided by school psychologists (Psych), school social workers, blind/low vision itinerant teachers (B/LV Team), deaf/hard of hearing itinerant teachers (D/HH Team), Board Certified Behaviour Analysts (BCBAs) and an occupational therapist (OT).

The types of LSS professional services students receive and the percentages of students who require them are presented in Figure 7, below.

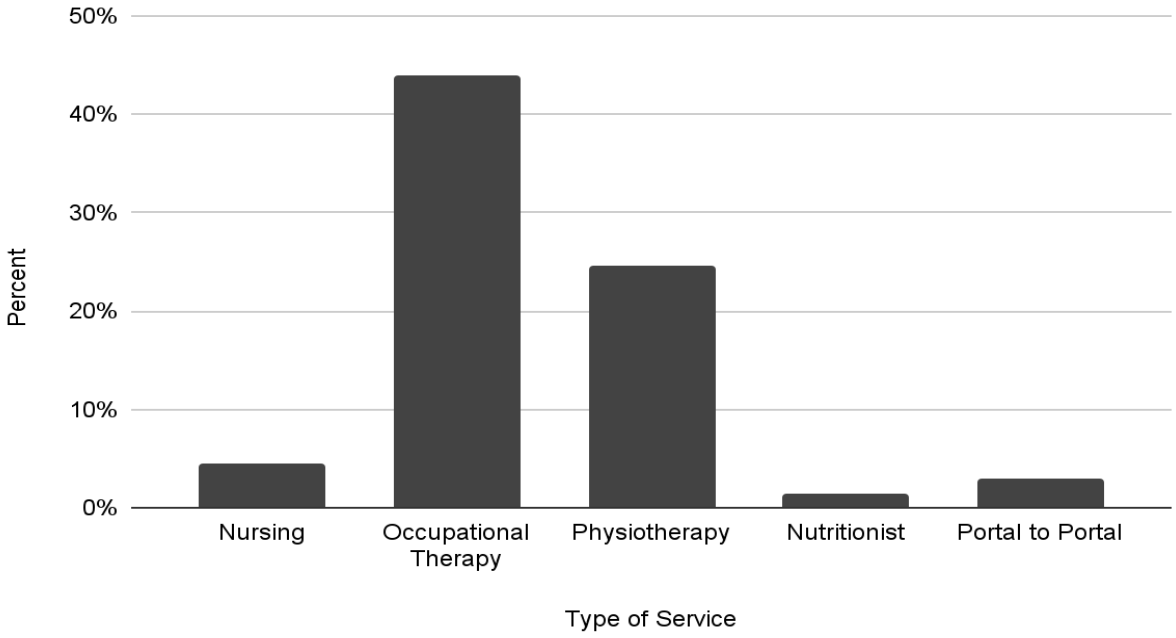
Figure 7: Students Receiving LSS Professional Services



Community-based Services

Community-based services are provided through CHEO School Health Program. These include nursing, occupational therapy, physiotherapy, nutritionists, and portal-to-portal service (i.e., nursing support while the student is being transported to school and back home). Figure 8, below, shows the percentage of students at both schools receiving community-based services.

Figure 8: Students Receiving Community-based Services



Summary

Statistically, the majority of students at Crystal Bay and Clifford Bowey are identified with a developmental disability and/or autism, they are male, and they are non-verbal. Almost every student has complex communication needs and requires assistance with daily living skills such as personal care and safety - all areas that have a direct impact on independence.

A smaller number of students are identified with a physical disability, and/or blind and low vision, and/or deaf and hard of hearing, or multiple exceptionalities. These students usually require specialized itinerant teacher services and/or other types of professional services to attend school and participate in learning activities. They also require specialized equipment to learn and demonstrate their learning.

Even though students at Crystal Bay and Clifford Bowey share some similarities, they are not a homogenous group. Rather, each child, youth, and young adult is unique and each one possesses their own strengths, needs, and potential. Whether they live at home, or in residential care, they come from diverse families and backgrounds, and require highly individualized programs, supports, and services.

ACADEMIC LITERATURE REVIEW

Introduction
A main focus of the Developmental Disabilities Program Review is to ensure special education programming at Crystal Bay Centre for Special Education and Clifford Bowey Public School continues to meet the complex learning needs of students who attend each school.

The literature review that follows makes use of, but does not discriminate between, research undertaken in inclusive and specialized congregated settings. The goal is to understand what effective educational programming and instruction looks like for students with developmental disabilities (i.e., moderate to severe intellectual disabilities and autism spectrum disorder), and to consider this research in relation to current practices at Crystal Bay and Clifford Bowey.

This literature review does not represent the entire body of academic research on the topic of developmental disabilities (DD).

Defining Developmental Disabilities
Before exploring the research on educational programming for students who attend Crystal Bay and Clifford Bowey, it is necessary to understand the challenges of defining the term DD. The term presents a challenge because, in many cases, the definition of DD is dependent upon the context of its use as well as the source of the definition. Examples from health care, the nonprofit sector, and education illustrate this point.

In health care, the preeminent source of assessment and diagnostic information is the Diagnostic and Statistical Manual of Mental Disorders (currently DSM-5 TR) which is published by the American Psychiatric Association (APA). Clinicians who work in school boards, private practice, and health care settings routinely refer to this manual when assessing and diagnosing students.

The DSM-5 TR does not refer to DD; rather it uses the term intellectual disability (ID) and groups it with 19 other disorders under the diagnostic category of neurodevelopmental disorders - disorders that begin early in a person's development (i.e., before beginning formal education) and "are characterized by developmental deficits or differences in brain processes that produce impairments of personal, social, academic, or occupational functioning" (APA, 2022, Neurodevelopmental section). Neurodevelopmental disorders also include autism spectrum disorder (ASD), Attention-Deficit/Hyperactivity Disorder (ADHD), and Language Disorder. Disorders that often coexist in people with intellectual disabilities. International studies from 2013 and 2016 suggest the rate of prevalence for ASD co-occurring with ID is 50% (cited in Pinals et al. p. 315).

Another widely respected source of information on ID and DD comes from the American Association on Intellectual and Developmental Disabilities (AAIDD) - a nonprofit

organization that promotes research, and advocates for universal human rights for people with intellectual and developmental disabilities. It defines an intellectual disability as “a condition characterized by significant limitations in both intellectual functioning and adaptive behavior that originates before the age of 22.” According to the AAIDD, an “intellectual disability is a developmental disability.”

Even though the terms intellectual disability and developmental disability have sometimes been used interchangeably in the past, today it is generally accepted that an intellectual disability is one of a number of conditions which fall under the broad category of developmental disabilities.

Within the context of education, the definition of DD is based on student learning needs and is not the same as a medical diagnosis. The Ontario Ministry of Education (MOE) sets out its definition of DD in the *Education Act* which is the legislative authority for special education in the province of Ontario and was last updated in 1990.

The MOE defines Developmental Disability as follows:
A severe learning disorder characterized by:

a. an inability to profit from a special education program for students with mild intellectual disabilities because of slow intellectual development;
b. an inability to profit from a special education program that is designed to accommodate slow intellectual development;
c. A limited potential for academic learning, independent social adjustment, and economic self-support.

The definition of DD is part of the MOE’s five broad categories used to identify students with special education needs (i.e., exceptional students) and determine their eligibility for placement in a special education program. There are five categories of exceptionalities: communication, intellectual, physical, behavioural, and multiple. These categories of exceptionalities “are designed to address the wide range of conditions that may affect a student’s ability to learn, and are meant to be inclusive of all medical conditions, whether diagnosed or not” (Queen's Printer for Ontario, 2017, A14).

However, in her book *Ableism in Education*, Gillian Parekh (2022) states that these categories of exceptionalities are problematic because students in any given category of exceptionality are diverse. She cites the work of Mitchell (2015) who describes a flawed sense of homogeneity among the categories.

Whereas, the DSM-5 groups intellectual disability and autism together in the same diagnostic category under neurodevelopmental disorders, the *Education Act* separates the two disorders into two different categories of exceptionalities. DD is under the category of ‘Intellectual’ based on the impact of cognitive delays on student learning and autism is under the ‘Communication’ category based on student learning needs in the area of communication. The result is a lack of alignment between the medical community and the education system.

Adding to the confusion around terminology is a separate definition of DD used by the Ministry of Children, Community and Social Services (MCCSS). The focus of the MCCSS is the provision of community services, support and funding to individuals with DD who are over the age of 18 years.

On their website, the MCCSS describes a developmental disability as follows:

- present at birth or develops before the age of 18
- affects a person's ability to learn
- is permanent
- can be mild or severe

As these examples show, there is no universally accepted definition of DD. This lack of agreement surrounding terminology can be confusing, especially for parents and caregivers who have to navigate between the medical community, the school system, and community services.

For those who work within Ontario's education system, these differences make it more challenging to define criteria for the allocation of education resources such as the delivery of programming, services, and supports.

Educational Programming and Related Evidence Supported Practices

Historically, the focus of educational programming for students with severe disabilities has been on the development of daily living skills and functional skills that would allow them to participate in society as independently as possible. More recently, and in light of more inclusion, studies suggest that students with severe disabilities are capable of learning in academic areas such as mathematics and language arts/literacy.

Math/Numeracy. Browder et al. (2008) demonstrate that students with severe disabilities can learn math when instruction is explicit, systematic, offers many chances for practice and when the material is taught in small chunks that are contextually meaningful. In terms of teaching math problem solving, Spooner et al. (2017) remark: "There is a need to teach the pivotal skill of mathematical problem solving skills to students with severe disabilities, moving beyond basic skills like computation to higher level thinking skills" (p. 171). They argue that traditional approaches to teaching math problem solving require higher level metacognitive skills students which severe disabilities often do not have. They suggest an evidence-based approach is more suited to students with severe disabilities which includes visual representations paired with hands-on experiences and direct instruction (citing Gersten, 2005).

In a review of the literature on math instruction for students with moderate to severe DD, Spooner et al. (2019) suggest that instruction that promotes the use of contextual cues (e.g., cues connected to students' lived experiences) is critical. Relatedly, incorporating materials and contexts familiar to students has also been shown to help decrease challenging behaviours (Lory et al., 2020). Spooner et al.'s (2019) literature review also concluded that instructional strategies utilizing technology-aided instruction, graphic organizers, and explicit instruction were among the most effective evidence-based

practices to teach math to students with moderate to severe DD. Research from Browder et al. (2012) found that when teachers use task-analytic instruction, students with "moderate and severe intellectual disabilities, and some with autism spectrum disorders, learned to solve problems in algebra, data analysis, geometry, and computation using familiar stories, graphic organizers, and manipulatives" (p. 24).

Literacy/Language Arts. Spooner et al. (2017) indicate that the majority of research on student academic achievement and instruction for students with severe disabilities is in the area of literacy and language arts.

A 2011 paper presenting information regarding literacy instruction for people with severe disabilities begins with the following introductory remarks from Martin Agran:

> [T]here is a mistaken belief that there is only one way to be in a culture - in this case, a literacy culture - that is validated by performing an arbitrary and prescribed set of skills (e.g., phonetic decoding). For people with severe disabilities who may have personal or idiosyncratic ways to express their literacy, such cultural membership is denied. Alvermann (2001) noted that our reading or literate identities are in effect decided for us by others. That is, we are labeled by others on how and what we read (e.g., struggling reader and poor reader). By extension, for students with severe disabilities, their identity becomes one of being nonliterate - a most undesirable identity as it will only serve as a deterrent to provide more instruction. This has consequently resulted in a lack of research regarding effective procedures to promote literacy for persons with severe disabilities (p. 89).

Agran (2011) notes that "because many students with significant disabilities do not acquire and demonstrate [a fixed set of literacy skills]... failure to become a member in the literate community is virtually guaranteed" (p. 89). Expanding on this general attitude, he indicates that too often students with severe disabilities are considered unable to benefit from literacy learning and therefore too often the prevailing belief is that more time should be spent on functional and adaptive skills and less time on teaching an academic skill deemed not an essential part of students' programming.

This is supported in research cited from Ruppar et al. (2011) where students' cognitive levels are thresholds for determining who should receive literacy instruction (e.g., Durando, 2008; Wehmeyer, 2004). Ruppar et al.'s (2011) research sought perspectives from special education teachers to understand their beliefs about literacy instruction and intervention for students with severe disabilities who use augmentative and alternative communication (AAC). One main finding from this research indicated that the special education teachers perceive literacy instruction needs to be embedded with the teaching of life skills so that instruction occurs in a natural context rather than curriculum-based. Ruppar et al. (2011) also suggest that "literacy may be the most important functional skill for students who use AAC because the ability to communicate across current and future environments gives individuals the power to direct their own lives" (Ruppar et al. 2011).

One area for consideration is incorporating shared stories and reading experiences into literacy instruction. Spooner et al. (2015) suggest that emergent literacy skills can be developed by incorporating shared stories where "emergent readers can engage in the shared story format to increase their knowledge of the subject matter as well as to gain these important early literacy skills" (p. 53). These researchers suggest that systematic instruction is useful for teaching the components of a shared story. When incorporating AAC (i.e., iPad or GoTalk), student participants demonstrated increases in the acquisition of emerging literacy skills (e.g., identifying the title, identifying the author, turning the page, text pointing, and identifying vocabulary), along with improvements in listening comprehension and in their responses to questions about the text. Spooner et al.'s (2015) research indicates when instruction includes embedded response opportunities (i.e., turning pages and reading repeated storylines on an iPad2) "that students can use technology to meaningfully participate in grade-appropriate literacy experiences" (p. 64).

Communication and Social Skills

To facilitate social interactions, express intentions, and increase opportunities for independence, students need to be able to communicate. Why is the ability to develop students' communication skills a central goal for parents/caregivers and educators?

> "The ability to communicate in meaningful and acceptable ways is fundamental for participation in our society. Without an effective means of communication, individuals with moderate and severe disabilities can experience the phenomenon of learned helplessness (Guess, Benson, & Siegel-Causey, 1985). Communication skills are essential for every day social and learning interactions. Most students with severe disabilities need systematic instruction to learn communication forms and strategies that are easily understood by others. Efficiently teaching functional skills so that students can participate in everyday interactions is the primary goal for systematic instruction in communication (Snell & Brown, 2006)" (Pinto et al. 2009, p. 99).

Research on communication and social outcomes for students with severe disabilities have tended to focus primarily on tools for developing communication skills. For example, the use of AAC. Calculator and Black's (2009) review of the literature on best practices for using AAC in inclusive school settings (e.g., community schools) reported that teaching students to use AAC skills helped to "foster students' membership in the school community, networking and friendships" (p.330).

In order for students to develop a naturalized set of skills in AAC, AAC should be embedded in naturally occurring times and situations throughout the school day and when students have access to multiple modes of communicating noting that: "AAC systems should be introduced as soon as a student is determined to be already, or at risk of being, unable to use speech and other forms of oral communication, all of which may be incorporated in the overall communication system" (Calculator & Black, 2009, p.333).

However, there are challenges associated with the use of some AAC devices. Drager et al. (2019) note the high learning demands for students requiring AAC systems. For example, grid-based displays are common when using a Picture Exchange Communication System (PECS) and on devices such as tablets, phones and computers. Moreover, Spooner et al. (2015) note that some students who have complex motor, cognitive, and sensory perceptual skills find touch technology challenging (see Kagohara et al., 2010).

To this end, Jacob et al.'s (2002) systematic review exploring teaching communication and social skills to students with intellectual disabilities found that instruction that incorporates role play, and uses video, peer tutoring, and computer games to teach emotions, play and social skills within groups are effective.

Touch-based AAC that includes life-like visual scene displays of school and home "preserve the relationships between concepts as they occur in real life" (Drager et al., 2019). However it is also noted that the constant loading of images can be time consuming and that there are difficulties in responding to interests of the students in the moment (Drager et al., 2019) but that just-in-time technology is an advancement that allows educators to "respond to the [student's] interests by adding new communicative contexts and vocabulary on the fly (Drager et al. 2019, p. 322).

In terms of responsibilities for implementing AAC, the authors relate how the coordination of AAC often falls on speech and language pathologists (SLP) and that this requires time for SLPs to work with teachers to develop communication planning. Spooner et al's (2017) findings point to the development of AAC skills outside of the classroom. This indicates the importance of providing communication disorder assistants (CDAs) and SLPs time to work with teachers and students inside and outside the classroom to help develop more fluid use of AAC. Calculator and Black (2009) suggest that students have AAC skill development as part of their programming and this programming should "target content that students find motivating and reinforcing, increase attentiveness, interest, and likelihood of success … [and that] when students are unable to influence others' actions because they lack conventional means of doing so, they may channel their frustration into challenging, or problematic behaviors" (p. 331).

Daily Living Skills

The term daily living skills is often used to refer to both personal care skills, or self-care skills, as well as life skills that lead to independence at home and in the community. Not only are daily living skills essential for the development of independence, they are also essential for promoting the dignity of individuals with DD. Spooner et al. (2017) also point out that as society has become more welcoming and inclusive to people with severe disabilities (i.e., community schools and workplaces) the need to understand instructional practices for developing daily living skills is essential.

Basic personal care skills include skills such as eating, dressing, personal hygiene, mobility, continence, and toileting. Whereas, more broadly, life skills incorporate areas

such as meal preparation, household tasks and community-based skills (e.g., transportation, leisure activities, and shopping).

Browder et al. (2014) note that when establishing student learning goals for daily living skills, the culture and values of the family should be taken into consideration. They also stress the importance of setting goals that reflect the interests and preferences of students. Although many of these goals can be practiced within the context of the school and home, opportunities to generalize daily living skills in real life settings is encouraged.

Evidence-based Instructional Strategies

Although fairly sparse in comparison to educational research on students without severe DD, the majority of research on evidence-based instructional practices for teaching students with severe DD is rooted in the principles of Applied Behaviour Analysis (ABA) (cited by Browder et al., 2014). Specifically, research has demonstrated the benefits of using ABA principles in the design of systematic instruction to teach both daily living skills and academic skills. Systematic instruction is carefully planned instruction that uses ABA instructional approaches such as those mandated in Policy/Program Memorandum 140: Incorporating Methods of ABA Into Programs for Students with Autism Spectrum Disorders (ASD). This approach includes strategies such as task analysis (i.e., breaking down skills into manageable, small steps), data collection to adjust instruction, prompting and fading, reinforcement, and generalization. It requires defining what the measurable skill is and how it will be measured.

For example, in their review exploring instructional strategies for teaching academic skills to students with significant intellectual and developmental disabilities, Cannella-Malone et al. (2021) found that incorporating visual supports, prompting, and reinforcement are an effective combination. Similarly, Spooner et al.'s (2017) review of evidence-based practices supports the use of systematic instruction to teach literacy skills to students with severe disabilities.

Gilson et al.'s (2017) review looked at studies of students with moderate to severe intellectual disability and the instruction of daily living skills. It offers evidence for several instructional strategies shown to improve students' daily living skills and transitions from school into their communities. Their review indicates that prompting, feedback on task performance, device-assisted instruction, and community-based instruction were the most commonly used strategies found to be effective for teaching daily living skills.

Additionally, in a recent meta-analysis, van Dijk and Gage (2019) found that the use of visual activity schedules are effective in developing independence in daily living and transition skills for individuals with intellectual disabilities (e.g., increased participation in daily activities, self-sufficiency, and independence). Age groups ranged from middle school students to adults. The researchers noted that most studies in their meta-analysis use systematic instruction to teach individuals how to use visual activity schedules and that they are an effective tool to teach skills and to ensure tasks are

accomplished with minimal to no assistance from others particularly when training and practice occur in classroom settings.

Broadly, students with moderate to severe DD have been shown to benefit from the prompting of responses where time delay strategies are used (Shepley et al., 2019). What is unique about this type of prompting procedure is the absence of any time delay at first, and then the educator repeats the prompt and waits a set amount of time for the student's response (Aldosiry, 2023; Swain et al., 2015). Focusing on students with moderate to severe intellectual disabilities in mainstream kindergarten to secondary classrooms, Hudson et al.'s (2013) review of the literature supports explicit instruction using prompting with time delays as an evidence-based practice for improving academic outcomes for students with moderate and severe intellectual disabilities.

Another type of prompting procedure is the 'system of least prompts'. This approach refers to a hierarchy of prompts from most to least intrusive used to help students learn a new skill. It is an evidence-based strategy for improving the academic and social outcomes of students with moderate intellectual disabilities and autism spectrum disorder (Hudson et al., 2013) and is proven to be particularly effective in teaching teenage students to learn community, self-care and vocational skills (Shepley et al., 2019). Additionally Shepley et al., (2019) suggest that the system of least prompts should be explored for teaching students how to use assistive technology.

To promote generalization, several authors stress the value of systematic explicit instruction that is at a student's developmental level and integrated across the day in different environments, routines, and activities (e.g., carrying over into other routines such as breaks and play times, field trips, and class and school presentations) (Johnson & McDonnell, 2004; Odluyurt, 2011).

Pinto et al.'s (2009) comprehensive literature review describes the effectiveness of a range of strategies for teaching students ways to develop their communication skills. Reviewing literature for children as young as four, and up to age twenty-one, using tools including AAC, Picture Exchange Communication System (PECS), and signing, the authors conclude that the key to effective communication skill development is that interventions are occurring in daily and natural situations and with students who understand the function behind communication (p. 107).

Students with Complex Health Needs

Some students with severe intellectual disabilities also have complex health care needs. As Lehr (2020) notes, there is no standard definition of "students with complex health care needs." The phrase is a broad descriptor used to refer to "those who have or are at risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (McPherson et al. 1998, p.137, cited by Lehr).

In the past, students with complex health care needs were often educated in hospitals, or at home. More recently, these students attend school with the specialized support of

nurses and other professionals (e.g., specialist teachers, occupational therapists and physiotherapists). Although the term “medically fragile” is sometimes used to describe these students, Lehr (2022) argues against its use explaining that using the term “medically fragile” serves to increase fear among educators and may negatively influence their attitudes and expectations for students.

In addition, research indicates that individuals with DD are more likely to experience mental health issues. “Psychiatric disorders have been shown to be three to four times higher among individuals with ID, compared to the general population, and include illnesses such as major depressive disorder, bipolar disorders, psychotic disorders, anxiety disorders, impulse control disorders, major neurocognitive disorders and stereotypic movement disorder” (Pinals et al, 2022, p. 315). Notably, individuals diagnosed with both ID and ASD (i.e., individuals with a dual diagnosis) tend to present with higher rates of repetitive, restrictive, or self-injurious behaviours.

Inclusive Learning and Students with Severe Disabilities

Over the years, the word inclusion has come to replace the term integration. Implying that it is no longer sufficient for students to merely be educated in the same setting as neurotypical peers; rather, students with special education needs in the regular classroom should feel a sense of belonging and feel valued for their unique strengths. An inclusive classroom prioritizes participation where social engagement and friendship is encouraged (Parekh, 2022, pp. 108-109).

The current shift towards inclusive education is enshrined in the Ontario Human Rights Code which was updated in 2018 by the Ontario Human Rights Commission. The updated policy on accessible education for students with disabilities places an emphasis on education providers to design more inclusive learning environments and promote accommodations that support inclusion. The Code also mentions the importance of considering intersecting factors such as ancestry, race, and students with more than one type of disability.

Despite the shift in education towards inclusion, there continues to be debate around the inclusion of students with severe disabilities in general classroom settings and what impact this has on their learning.

Research suggests that for students with moderate to severe intellectual disabilities, learning alongside their neurotypical peers improves their academic and social outcomes (Hudson et al., 2013; Kleinert et al., 2015; Kurth et al. 2015/2016). Olson et al. (2016) note that inclusion in general education classrooms opens up curriculum opportunities, increases learning expectations, promotes the development of academic, social and functional skills, and “offers students with disabilities opportunities to participate in activities with peers without disabilities, particularly in inclusive environments” (p. 143).

Conversely, Kleinert et al. argue that there are elements to an inclusive learning environment that can negatively impact these students’ outcomes (Kleinert et al., 2015).

Considering the influence of learning in general education classrooms, the findings from Kleinert et al. (2015) display a significant positive correlation between expressive communication, reading and math skills, and inclusion. However, they also found that there was a significant negative correlation between the use of technology (e.g., assistive and augmentative technologies) and learning in an inclusive setting. In addition, they found that students lacking verbal competency and without a formal system of communication were less likely to experience inclusion in general education classrooms (Kleinert et al., 2015).

Placement in a self-contained classroom setting for students with severe disabilities and complex communication needs presents its own challenges. A study of high school students in self-contained classes completed by Kurth, Born & Love (2016) found that these settings provided fewer opportunities for students with AAC to practice its use given the limited communication skills of other students in the classroom. They also observed that the grouping of students with complex communication needs who use AAC resulted in fewer student interactions with staff and tended to foster a culture where staff engaged more with each other in conversations and focused less on instructional activities.

Arguments in favour of congregated settings include support for the maintenance of segregated spaces as “therapeutic communities” (Parekh, 2022, p. 69) where students with complex needs can benefit from being grouped together based on the supports and services they require. Gee (2020) writes that “professionals benefit from segregated services that, in their minds, make it “easier” for them to do their jobs—for example, congregating all the students with multiple disabilities at one site so that the physical and occupational therapists do not have to travel from school to school.” While this approach to allocating professional resources may make sense on a system level, it ignores the decades of empirical evidence showing the academic and social benefits of inclusion (Hehir et al., cited by Parekh, p. 133, 2022).

For the parents and caregivers of students with severe disabilities who are being taught in self-contained classrooms, the idea of dismantling congregated classes and schools can be a troubling prospect that may be met with resistance. Parekh describes a number of possible reasons for parental resistance such as a lack of trust in the system, a potential loss of support for their child, and awareness of attitudinal barriers in general classrooms and schools (Parekh, p. 134, 2022).

Agran et al. (2020) attribute attitudinal barriers in general classrooms and schools to several factors including educator biases, a lack of educator training, concerns related to potentially challenging student behaviours and concerns about the self-esteem of students with significant disabilities. They propose these barriers are best addressed through intentional system changes:

> Relevant elements of systems change include developing an organizational vision, operationalizing the changes, encouraging commitment to the changes, and developing team structures for communication and accountability.

The suggestion being that both structural and cultural changes are necessary to promote inclusive classrooms and schools.

Impact of Inclusion on Neurotypical Students

More recently, questions have been raised about the impact of inclusive education on neurotypical students. Canadian and international research indicates that inclusive education has a positive influence on the academic and social achievement of students without disabilities (Katz et al., 2021; Kart & Kart, 2021; Ruijs & Peetsma, 2009; Szumski et al; 2017; Szumski et al., 2022). Szumski et al. (2022) compared neurotypical peers' academic achievement in either a classroom with no students with disabilities, a classroom with a co-teacher and up to five students with disabilities, and no co-teacher with up to two students with disabilities. Regardless of educational setting, students did not differ significantly in mathematics and language achievement, leading the researchers to suggest that inclusive settings promote the similar levels of achievement as learning in classrooms with less neurodiversity. Supporting the positive outcomes related to inclusive education Katz et al. (2021) citing Kalambouka et al. (2007) remark that:

> The presence of students with mild, moderate, and severe disabilities have all been shown to have neutral or positive effects on the academic performance of students without disabilities. Indeed, despite concerns that students with emotional and behavioural disorders would disrupt the learning of students without disabilities, research has consistently demonstrated that this is not the case (p. 1392).

Katz et al. (2022) found that teachers who undertook evidence-based professional development on universal design positively influenced students' academic and critical thinking skills. This implicates the role of professional learning for improving teachers' ability to include all students in the classroom.

Summary

In general, there is limited research available on educational programming and instructional strategies for students with severe disabilities and this is especially the case for students in self-contained classrooms.

Current research offers strong support for teaching both daily living skills and academic skills to students with severe DD using systematic instruction (i.e., data-based instruction). Strong support also exists for teaching communications skills and ensuring that students with severe DD have a formal communication system in place.

In addition, most research supports the principle of inclusive education and its benefits. Where there is still debate is how to achieve meaningful inclusive education - particularly in the case of students with severe disabilities and complex communication needs. There is, however, general agreement that educator training is one of the keys to success. It is dependent upon all teachers at least being aware of research validated methods and ensuring that each student has a system of communication.

INFORMATION ABOUT PARTICIPANTS

Parents and Caregivers
Approximately 51%, or 102, parents and caregivers responded to the survey and shared their perspectives of their children's educational experiences at Crystal Bay and Clifford Bowey. A total of 107 students are represented in the data to various extents and the discrepancy between this number and the number of respondents may be explained by parents and caregivers with more than one child at one of the two schools. Additionally, it is possible that more than one parent or caregiver submitted a survey on the same child: a review of the surveys indicates this is likely true for one case. To be expected, not all respondents answered every question.

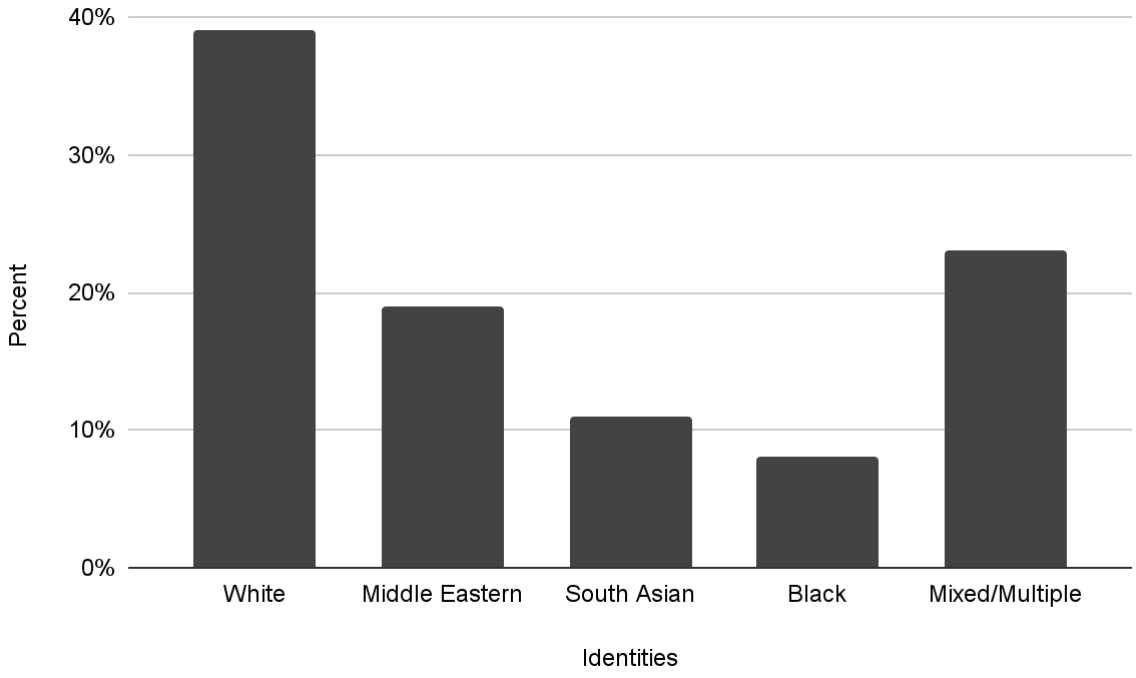
The majority of parents and caregivers reported having children in the primary grades and/or intermediate grades. However, it is important to keep in mind that Crystal Bay and Clifford Bowey are classified as elementary schools and as such students assigned to Grade 8 may range in age from 13 years up to 21 years. Table 4 shows the distribution responses across grade levels for the 2022-23 school year.

Table 4: Distribution of Parent/Caregiver Responses Based on Grade

Grade Level	Number of Responses	Percent of Total Responses
Year 1 Kindergarten	0	0
Year 2 Kindergarten	10	9%
Primary Grades (1-3)	32	30%
Junior Grades (4-6)	11	10%
Intermediate Grades (7-8)	36	34%
Not Answered	36	17%
Total	107	100%

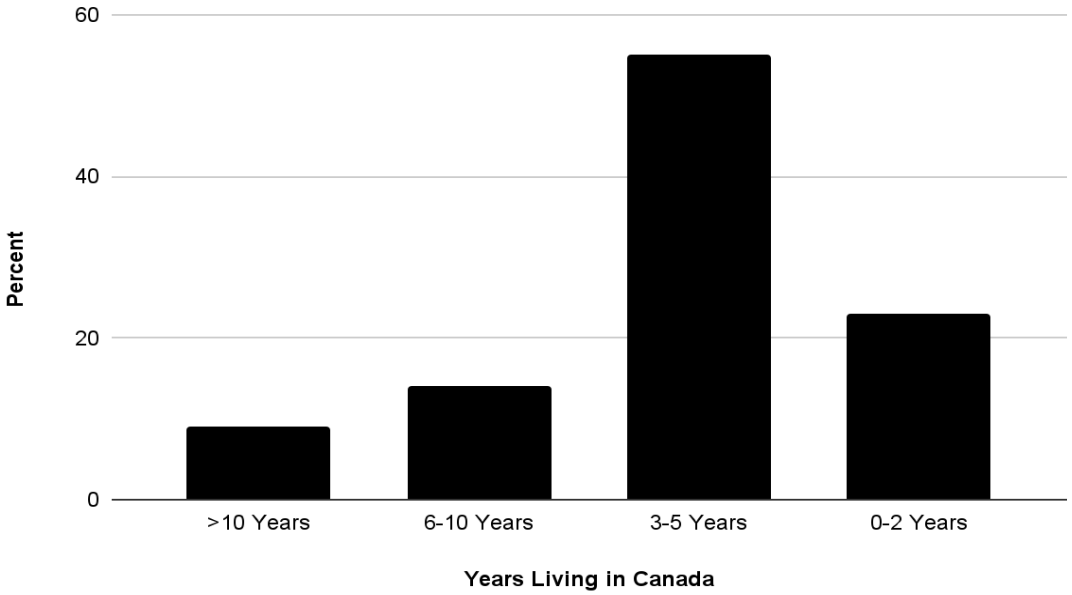
Racial Identity. The question asking *What racial group best describes your child/children* was answered by 95% of parents and caregivers. White, Middle Eastern, South Asian, Black, Indigenous, Latino, and South East Asian students make up 94% of the schools' student population. In the graph below, "Mixed/Multiple" comprises students identified as belonging to more than one racial group.

Figure 9: Most Reported Racial Identities by Parents/Caregivers



Time Living in Canada. The majority (77%) of parents and caregivers report that their child, or children, were born in Canada. Of the 25 children reported to be born in another country over half have lived in Canada for five years or less (see Figure 10, below).

Figure 10: Length of Time in Canada for Students Born Elsewhere



Languages Spoken at Home. Overall, parents and caregivers reported 23 languages and 31 different combinations of languages spoken in their households. Table 5 provides an alphabetical list of these languages.

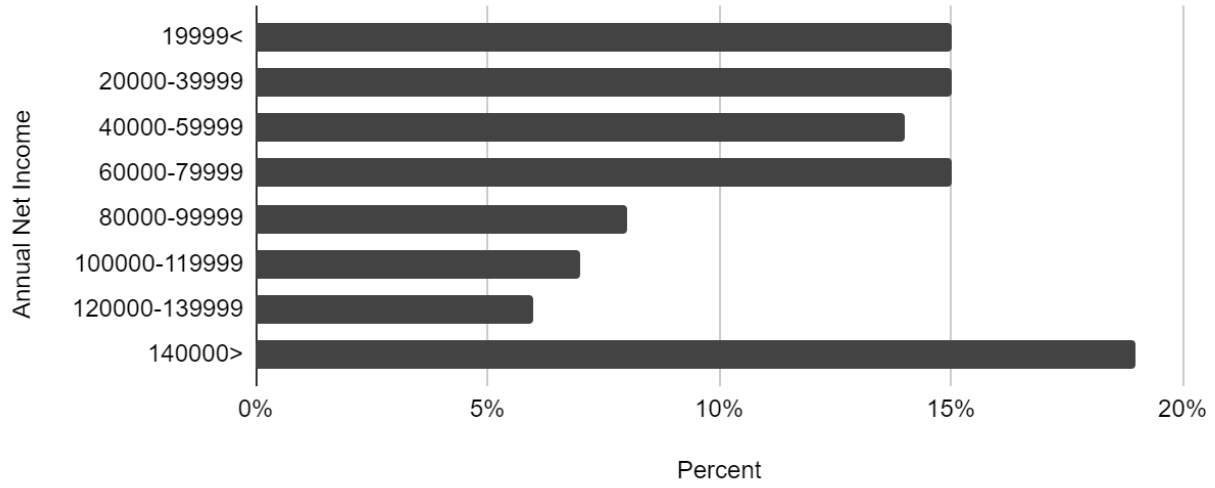
Table 5: Languages Spoken at Home as Reported by Parents/Caregivers

Albanian	French	Spanish
Arabic	Hindi	Swahili
Bangla	Japanese	Tamil
Bengali	Nepal	Tigrinya
Chin (part of Sino-Tibetan group)	Pashto	Urdu
Chinese	Persian	Vietnamese
Filipino	Pidgin	Yoruba
English	Somali	

Most parents and caregivers (58%) report speaking only English in their homes and approximately 17% report speaking both English and another language. Notably, 8% of respondents reported that only Arabic is spoken at home.

Socioeconomic Status. A high percentage (71%) of parents and caregivers reported their annual net level of income. The eight categories shown below in Figure 11 are based on the income levels that were used in the Valuing Voices 2019 Technical Report and provide additional insight into who is represented in the findings. In the survey, 19% of respondents reported the highest level of income of $140,000 or more, 15% selected an income of $19,999 or less, and everyone else fell somewhere in between (see Figure 11, below).

Figure 11: Annual Net Income Ranges Reported by Parents/Caregivers



Educator Survey Participants
A combined total of 92 staff out 120 responded to the educator survey, including 22 classroom teachers, 62 EAs and eight staff who indicated a different role at the schools. The findings presented here focus on the responses from classroom teachers and EAs. Based on responses from classroom teachers, their total years of teaching experience ranged from two years to 35 years with many teachers reporting they were in their first five years of teaching. The average length of time teaching at Crystal Bay or Clifford Bowey was around five years.

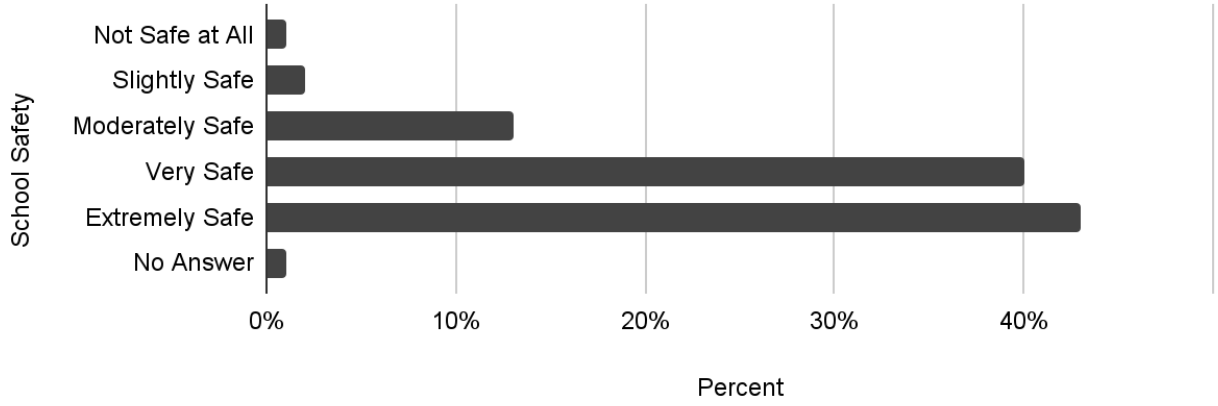
Many EAs who participated in the survey reported they were in their first year, or two, of working as an EA and/or working at the school. Overall, their total years of experience working at Crystal Bay or Clifford Bowey ranged from several months to 37 years.

PERSPECTIVES ON EXPERIENCES AT SCHOOL

Student Safety

A majority of parents and caregivers (86%) perceive that their children are very safe to extremely safe at school and 13% perceive their children are moderately safe. See Figure 12, below, for a summary of ratings. The most satisfied parents were happy with the support in place and indicated that their children's enjoyment and happiness at school was related to how safe they felt. In the words of one parent: "educators and staff ensure a 'safety first' culture and learning environment for everyone."

Figure 12: Parent/Caregiver Ratings of Safety at School



Despite expressing confidence in the safety measures in place at both schools, parents, caregivers, educators and administrators all commented on the frequency and intensity of unpredictable and challenging student behaviours (e.g., dysregulation, outbursts).

> "The staff at the school is well trained in helping students who are dysregulated. Unfortunately, many of the students often are dysregulated, (this is natural, [a] part of their profiles). On a day when several students are dysregulated at the same time, the chances of someone getting hurt increases. This is true for my children as well … my [child] can become dysregulated and can exhibit aggressive behaviour towards staff, towards themselves and towards other students." Parent

> "... there are often times that I don't feel my students are safe. They are in close proximity to other students that can become aggressive. We don't always have the space for safety." Teacher

> "… As much as we plan and prepare, and try to be ready there will always be moments where we can be caught off guard." EA

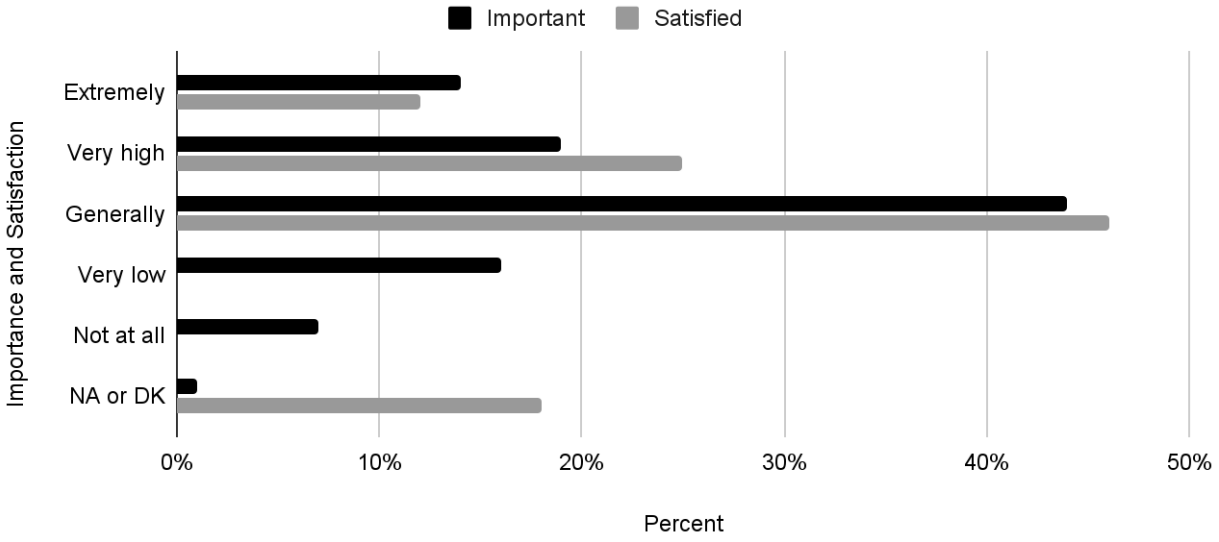
One parent who attended a focus group session spoke about her concerns that children who have complex health care needs are at a higher risk of being injured because they share the same classroom as students who may become dysregulated. During the discussion, this parent explained their safety concerns.

> "My purpose for coming tonight was to bring in that immuno-compromised, medical fragile voice … maybe we need to look at creating some sort of a classroom designated … for these kids … So my [child] is non-ambulatory, [child] is in a wheelchair … [child] can't defend himself, [child] can't get away … So there are concerns on my part from the parent perspective of a medically fragile child … is [name of school] even the right place for him. But the problem is there's no right place for him in this school system." Parent

Identity and Representation

Parents and caregivers place a high degree of importance on their child's identity being represented and reflected at school. This includes the physical surroundings of the school as well as what and how students learn. The majority of parents and caregivers indicated general satisfaction with how their children's identities are represented within the school and in classrooms (see Figure 13).

Figure 13: Parent/Caregiver Perceived Importance and Satisfaction with Representation of Identities in the School and Classrooms



There was agreement among parents and caregivers that educators are invested in connecting the cultural identities of their students to learning.

> "This is an area where I feel the school has made a lot of progress in the past few years, where cultural identities have been recognized throughout the school (as opposed to just seeing students belonging to the disability community). Thanks to these initiatives, my daughter has been exposed to artwork and music from different cultures, for example, which has been very enriching for her." Parent

In group discussions with parents and caregivers, cultural identity and how it is represented and reflected at school was less of a priority for a number of families than ensuring their children's complex disability-related needs are being met.

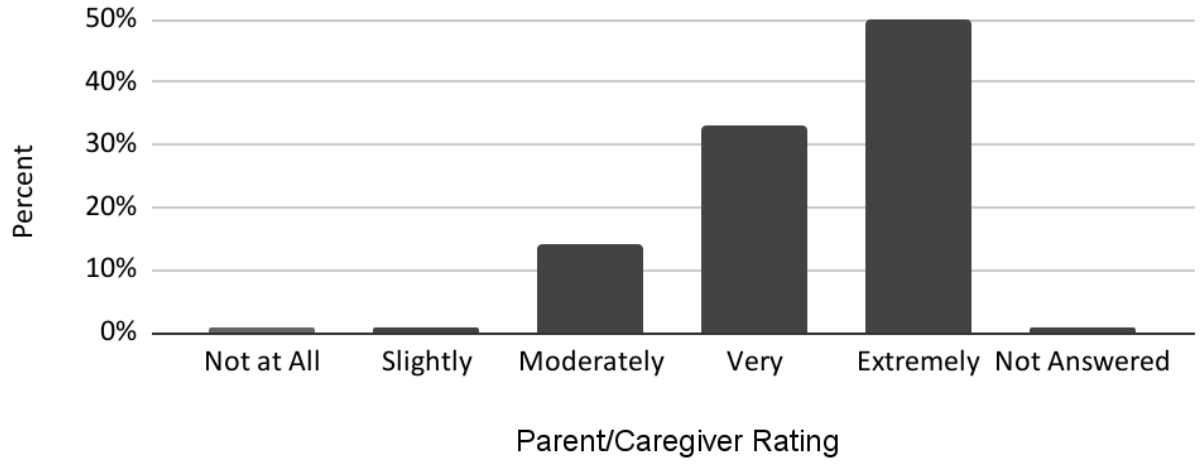
> "My focus is on my child's development … It might be important to my neurotypical daughter to have that [cultural representation] in school, but at this point, I'm okay … I'm going to do that at home. I need to focus on the developmental areas of his life … getting him the skills that he needs to be a productive person in this world." Parent

Administrators noted that for several years now both schools have participated in District training on diversity and equity and made this a focus in their schools. Incorporating culturally inclusive resources and tools into educational programming is one aspect of this ongoing work.

Enjoyment of School

To better understand the experiences of students at school, a question on the survey asked parents and caregivers to rate their children's levels of enjoyment at school. Findings show that 83% of families perceive that their children *very much* to *extremely* enjoy being at school, and 14% rated moderate enjoyment. (see Figure 14, below).

Figure 14: Parent/Caregiver Perceptions of Their Child's Enjoyment of School



The majority of comments from parents and caregivers indicated that their children love school, are excited to attend school every morning, and that they are thankful for what the staff are doing for their children and the programs that classroom teachers are providing.

Most educators (76%) shared the perception that students very much (55%) to extremely (19%) enjoy school. Describing the enjoyment they observe when students arrive at school, one staff member wrote:

> "I believe there is a huge majority of the students who enjoy coming to school, they seem to smile, laugh and run into the building. Some attempt personal connections with staff by affection (hugging), making attempts to communicate, or running up to their favourite staff and looking for personal time with them." EA

Communication with home

Administrators described using various means to communicate and connect with families and the school community. For example, email, daily communication logs on Google Docs, and weekly electronic newsletters which are able to be translated. Paper copies continue to be particularly effective for sharing important information with parents/caregivers compared with email (e.g., upcoming school events, when IEPs and reports will be sent home). With one administrator remarking that, in their experience, "some parents don't have laptops, smartphones, or even email."

Another concern mentioned by administrators is the challenge of engaging and communicating with families whose first language is not English. Administrators are keenly aware that this may be a factor in the level of parent/caregiver participation and involvement at school and they continue to do this work with the assistance and support of Multicultural Liaison Officers and members of the broader community.

Because so many students at Crystal Bay and Clifford Bowey are non-verbal, daily communication between home and school is highly valued by parents and caregivers. There are varying modes of communication that parents and caregivers find effective. Examples of effective communication tools they mentioned were daily communication books that go back and forth between the teacher and home, emails, and phone calls.

> "I agree daily communication is working well. I wanted to say as a parent of a child who is almost non-verbal I would love to stick to daily [communication] because I cannot wait a week to know what happened because my son does not communicate to me … Like I want daily reports for my child." Parent

> "All of my daughter's teachers over the years have offered daily communication with parents either through a paper agenda or email. This communication is especially important with a non-verbal child, so is very much appreciated. The teachers are very responsive to questions and don't hesitate to follow-up with PT, OT, and SLP as needed. They have also assisted a lot with ideas to transfer my daughter's learning from school to home." Parent

Overall, the frequency and availability of communication between home and school was rated quite highly by parents/caregivers. For example, 71% of parents and caregivers

are very to extremely satisfied with the level of communication they have with the school. Additionally, 91% rate that information and support is available and communicated to them by teachers (see Figures 15 and 16, below).

Figure 15: Parent/Caregiver Perceptions of the Frequency of Communication with Home

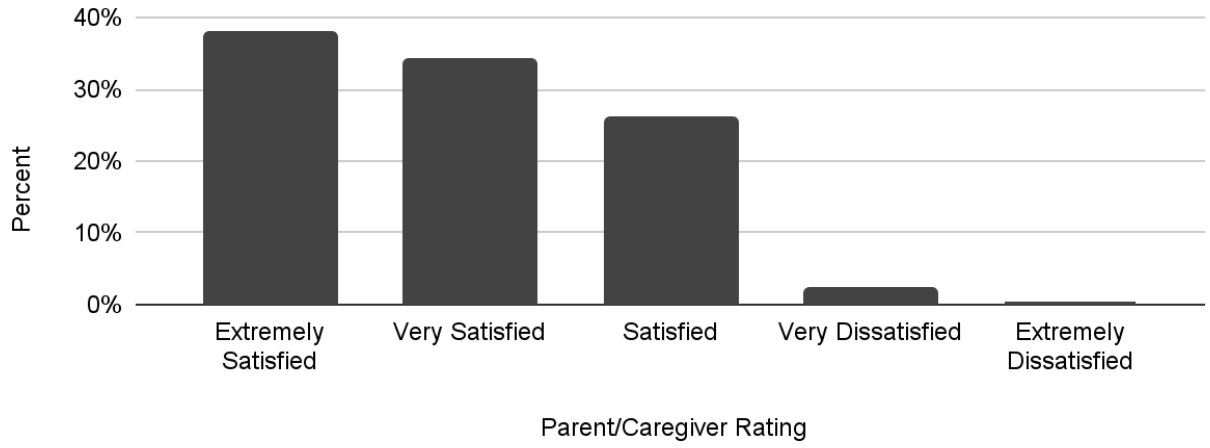
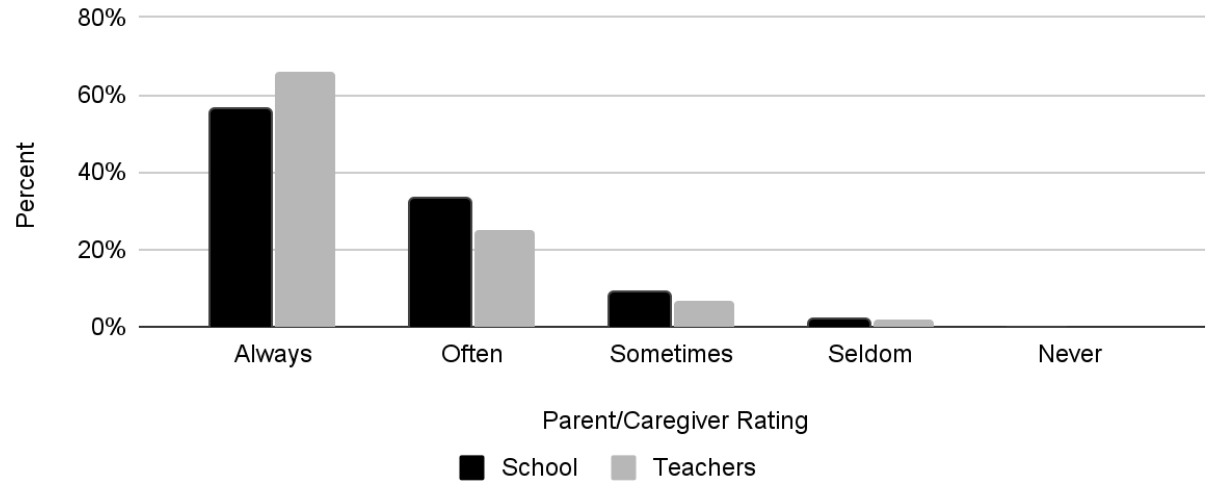


Figure 16: Parent/Caregiver Rating of the Availability of Information and Support from School and Teachers



Some parents and caregivers reported a slight decrease in daily communication since pre-pandemic and a few responses from parents/caregivers reported difficulty, at times, connecting with teachers. However, the majority of ratings indicated satisfaction with access to teachers and the school. Higher ratings of satisfaction relate to receiving daily communication, virtual and in-person options for meetings, and the availability of staff by phone.

Educators comments highlighted the crucial role of regular parent/caregiver communication in order to understand any changes the student may be experiencing outside of school (e.g., routines at home, sleep patterns, health related issues) and to share with families student successes, class reminders, and information related to the student's learning and/or well-being.

PERSPECTIVES ON SPECIAL EDUCATION PROGRAM

IEP Development

In Ontario, parents and caregivers must be consulted during the IEP development process. Ontario Regulation 181/98 states that parents and students, if the student is 16 years of age and older, must be consulted in the development of the student's IEP. Because all the students who attend Crystal Bay and Clifford Bowey have complex communication needs and many of them are non-verbal, there is an even greater reliance on parent/caregiver communication and consultation for this population of students.

Most parents and caregivers reported that they were often directly involved in the development of their children's IEPs and that this allowed them to provide input based on their child's interests, needs and challenges. Parents spoke about how important it was to them that their child's IEP take into consideration their child's current level of development.

> "For the most part [my child's] challenges sometimes were more exceeding, had more expectations than what the IEP would allow. But in other cases, the IEP really, really was honed onto specific challenges and the staff and the teachers and the teams are very, very amenable at changing those goals, moving those goals forward or setting them back." Parent

> "The teaching team works with me to ensure my son's goals are met. We communicate regularly. If something isn't working or helping the teacher reaches out and we discuss options for what might work better for my child. If I offer suggestions the teaching team is always open to the ideas and to try them. My child doesn't always learn as quickly as other children so he doesn't always meet the goals in the IEP as quickly as others but we continue to communicate with each other to support my son so that he can learn at his own pace." Parent

On the other hand, a sense of frustration was voiced by some parents who perceived there to be a lack of responsiveness in the annual IEP development process.

> "By the time I get the IEP it's very difficult to get anything changed because it's sort of given to me as a completed published document … If anything, I'd like to get a draft of the IEP before it becomes a final document." Parent

Meetings earlier in the school year were suggested for improving the ability of parents/caregivers to contribute to their child's IEP goals. Consultations that happen later in the year are perceived to be less effective.

> "I know they [teachers] need to get to know the children in order to write everything, but I find it's already weeks and weeks into the programming and then it takes weeks and weeks to go back … there's gotta be a better way to do it like an intake meeting at the start of the year, make some notes and then have a file

> that goes back and forth for a little while longer rather than just waiting so long." Parent

Educational Program

The special education program for students at Clifford Bowey and Crystal Bay is referred to as an alternative program. In general, alternative programs focus on functional academic skills and daily living skills which are not part of the Ontario curriculum. Rather, each student's educational program is based on their individual strengths, needs, and learning profile. Alternative learning expectations (i.e., learning goals) are established in consultation with students' parents/caregivers and documented on their IEPs.

While students' annual learning goals are responsive to what the educators and families want to target for that particular school year, all students' IEPs include goals in literacy, numeracy, communication, and gross motor skills. In recent years, both schools have focused on the instruction of functional academic skills (e.g., literacy and numeracy) and they report seeing amazing results. However, a programming challenge remains in terms of balancing the development of personal care skills and daily living skills with the development of literacy and numeracy skills: underscoring a prevailing belief among some staff that daily living skills and functional communication should be the primary focus of the program and that everything else, including functional academics, is extra.

In terms of overall student outcomes, school administrators identified independence in personal care skills, self-regulation, communication, and social skills as the most important outcomes for every student and compared them to the importance of the existing OCDSB Exit Outcomes. It is critical that students make progress in meeting these outcomes so they become as independent as possible and are prepared to transition into day programs and other activities in the broader community. If students do not have an established communication system (e.g., able to respond to yes or no questions), and if they struggle to self-regulate, it may limit their opportunities after they leave school.

Overall, the majority of parents and caregivers (55%) rate that they are very satisfied to extremely satisfied with their children's overall educational program; 31% were satisfied, 10% very dissatisfied, and 1% extremely dissatisfied. Of those who responded to the survey, 70% of parents and caregivers provided written feedback explaining their ratings.

Overwhelmingly, independence is the number one outcome parents and caregivers have for their children. For example, personal care skills (e.g., personal hygiene), daily living skills such as making a simple meal, and communicating basic wants and needs. One parent shared how her child has become more social with neighbours, demonstrates improved communication and gross motor skills, and overall is more independent when they go out for walks.

> "So, when he's at home on the weekend or in the evening, I take [my child] out to walk. Earlier, he used to hold hands, and he didn't understand the instructions, but

> now I don't hold his hand, he walks beside me quietly, and if I give him instructions ('turn back' or 'now right side, left side') he understands that. So it is another achievement that his walking skill has been improved by school and home practice." Parent

Being unprepared for life after finishing school was a fear expressed by parents and caregivers of both younger and older students.

> "I think about this from a real long term perspective, like what happens after my husband and I pass away. I want my child to have as much skills as [they] can so that their siblings are not then trying to support him. If [they] could live as independently as possible then that would reduce my long-term anxiety about what happens to my [child] when I can't lift [them] anymore … So the more skills that they learn you know [that's] going to help me personally but I think it also helps our society." Parent

> "I want my [children] to live happy lives. I want them to feel valued, loved, accepted and respected." Parent

Another parent described how their child's classroom teacher incorporates music and tactile exploration into the routine of their child's daily educational programming. Other parents voiced their enthusiasm for how music and art experiences are incorporated into their children's educational programming. They remarked on how it helps with their children's overall engagement and learning in school. The following comment from one parent embodies what many others said about the importance of music and also articulates how music can steer children into new ways of learning and using technology:

> "He loves music and finds music on tablets and we didn't even know that he knew how to do that. He finds music. So I love the aspect of bringing music into the classroom and into the programming." Parent

Daily Living Skills

Parents and caregivers spoke positively about experiences at home that demonstrate the generalization of daily living skills from school to home. One parent described how their child now likes to help the family in the kitchen, that he likes to bake with his father on the weekends and that the school is to thank for this. Another parent shared how their child is doing laundry at home, that "he'll go find things and put it in the washing machine and turn it on… [that] he's learning the skills."

Community Outings

Participants shared how important field trips are as part of their children's educational program because it allows them to experience, practice, and develop communication skills, independence, and safety awareness. This includes learning about money, using public washrooms, and visiting public spaces like museums. Field trips also offer opportunities to learn patience, tolerance, and reliance on others to help them in the community.

> "As mundane as it might seem to anyone else, like going to the grocery store and learning to pick things up to then bring back to the [school] cafeteria to make

things, like these are some of the experiences that I know [my child] really enjoys … even just taking the bus, learning to put the change in. Things like that are really important." Parent

"It's hard to get [my child] out in the community and during the holidays. Holidays are super hard because people are everywhere and it's tricky. So we decided to brave it, and go to the museum, and unexpectedly [my child] was well behaved … [my child] was so well behaved that I was crying and it was so emotional. But again, it had to do with [the school] bringing them to the museum and [my child] clearly knew where they were." Parent

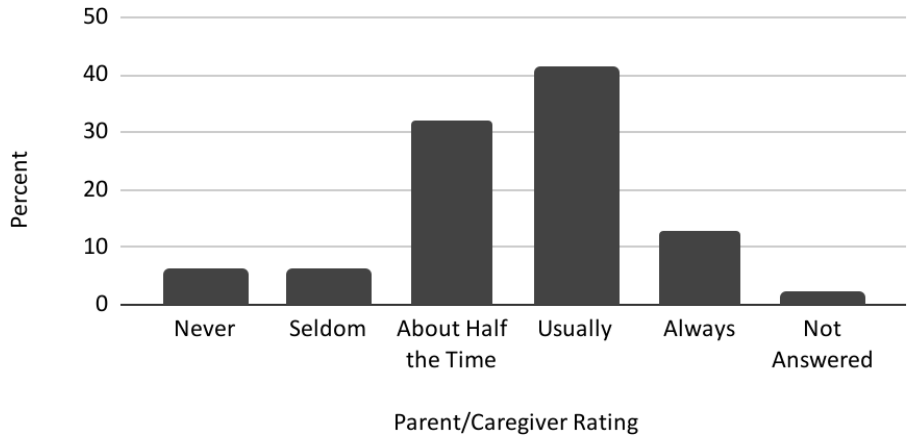
The value of the swim program was also mentioned by parents and caregivers and this was reflected in both the focus group discussions and in survey comments. Parents/caregivers described the enjoyment their children experience while in the pool, and the importance of having their children learn about safety in and around the water. As one parent explained, if their child could learn "a few strokes, if they can, so if they fall in the water we can get to them … the swimming is huge." Parent

Achievement of IEP Goals

Annual IEP learning goals are intended to challenge students appropriately with the recognition that skills need time to develop. Progress achieving the learning goals described in the IEP are assessed on an ongoing basis throughout the school year and may need to be adjusted. Students' progress towards achieving these goals is reported to parents/caregivers anecdotally on an alternative report. Any significant changes in a student's learning expectations must be communicated to parents/caregivers before they are implemented.

Just over 50% of respondents reported that their children *Usually*, or *Always*, meet annual IEP goals and 12% provided a rating of *Seldom* or *Never* (see Figure 17).

Figure 17: Parent/Caregiver Ratings of Achievement of Annual IEP Goals



Parents and caregivers were also asked about their level of satisfaction in relation to the support their children receive to help them meet the learning goals set out in their IEPs. The majority of parents and caregivers reported being very satisfied to extremely satisfied and they attributed their child's positive learning outcomes to the work of their children's teachers, EAs, the specialized learning environment, and professional services and supports (e.g., PT/OT, SLP).

> "Because the school provides a specialized learning environment for students with developmental disabilities, everything is in place to support my daughter's work towards her IEP goals. The staff are experienced and prepared with many different teaching strategies, routines are in place, specialized equipment is available, and consultations with PTs, OTs, and SLPs are regularly done." Parent

> "My child has been attending the school for approximately 12 years now. The success he has had is amazing. If it was not for the programs that are in place for his individual needs I don't think he would be where he is." Parent

> "I am extremely happy that my son is attending a school that meets his complex needs. The staff is wonderful and I feel he gets the attention he needs in his classroom. The teachers are kind, supportive and very patient and I often see things my son is learning at home and it blows my mind! It's wonderful!" Parent

Of those survey respondents who expressed dissatisfaction with the support provided to their child to meet IEP goals, some indicated a need for increased staff time to support one-to-one learning and address personal care needs. In addition, a few parent/caregiver comments reflected concerns related to stagnant IEP goals and interruptions to student learning (e.g., to address classroom safety). And one parent shared their belief that teachers are not sufficiently trained in the Applied Behaviour Analysis principles necessary to create an effective learning environment and individualized educational program.

In focus group sessions and on the parent/caregiver survey, several participants commented that the number of students per class at Crystal Bay and Clifford Bowey is too large and they want to see class size ratios lowered. These parents and caregivers expressed the opinion that a smaller class size of six (6) students would greatly benefit their children's learning and achievement, well-being, and positively impact the school experiences of peers.

> "I really feel like he does so well when he's getting one-on-one attention … like he's so eager to learn and if you're not paying attention to him he is just destroying stuff and that there's like no in-between for this little guy... I will also echo the other comments that, like we have loved the teachers and the staff and we just feel like they are absolute angels and they are doing so much for our kids, but yeah, they are only humans as well … they can't be everywhere all at once. And I can't even imagine being in a classroom with eight of somebody at this energy … So if there is one more thing that would help him achieve his IEP goals, I think it is more support, more one-on-one support, or lower ratios." Parent

> "I wish I could get each of you to come and live a day in my son's life because you would see from the moment he wakes up to the moment he goes to bed it literally takes facilitation for every single activity. You can't turn your back on anything because he's going to choke on something, he's going to get hurt, he's going to hurt somebody else. So again, it's unfortunately going back to the ratio that hinders his learning." Parent

In addition to concerns raised about class sizes, a few parents/caregivers commented on the challenges associated with changing educator teams and the importance of communication between teams in order to support their child's transition to a new class.

> "By the time [my child] was finished with [the teacher] at the end of fourth year, it was boom, boom, boom. All the flexibility was built in but the flexibility didn't carry over into the new classroom and I think perhaps that flexibility could have been carried over had the old teacher and the new teacher conversed over the summer or the first week of school or the last week of June and to understand that yeah, this is what [my child] is like as a person, this is what [their] expectations are, this is where [their] comfort zones are … The teachers and the teams need to be talking to each other especially during the transition period." Parent

Several other parents and caregivers also cited the importance of staff relationships with their children and the time required to establish them.

> "Having the consistency with one teacher who knows the child, who knows their strengths, their weaknesses, when they've slept well, when they haven't slept well, they know almost as much as a parent does because they spend so much time with them. I understand that they can't have the same teacher the whole time they are here because some work with the younger and some with the older kids but for a period of time I think it really really helps because they notice the little things that if they are with a new teacher each year they might not notice." Parent

Parents and caregivers also shared perspectives on how their child's dysregulated behaviour might affect the overall education program of students in their class. Their worries centred on the learning and well-being of all children.

> " … So when kids are having these meltdowns it takes away from the learning of others." Parent

> "Anytime you have that removal of a staff so that they can take a student on a body break, or take them to their alternate learning space it means that there are seven students back in the class." Administrator

Administrators, teachers and EAs stressed that interruptions to address dysregulated behaviour, or attend to personal care, along with providing support to students with complex health care needs, results in high demands on EA time and this has implications for the delivery of programming in the classroom. For example, providing one student with toileting assistance takes an average of twenty minutes and often requires two EAs. And most students have two or three scheduled washroom breaks per day.

“The teachers and EAs are too overwhelmed looking after the daily needs of all the students to spend enough individual teaching time with students. When they do have the time, the teacher and EAs go above and beyond in trying to help each student.” Parent

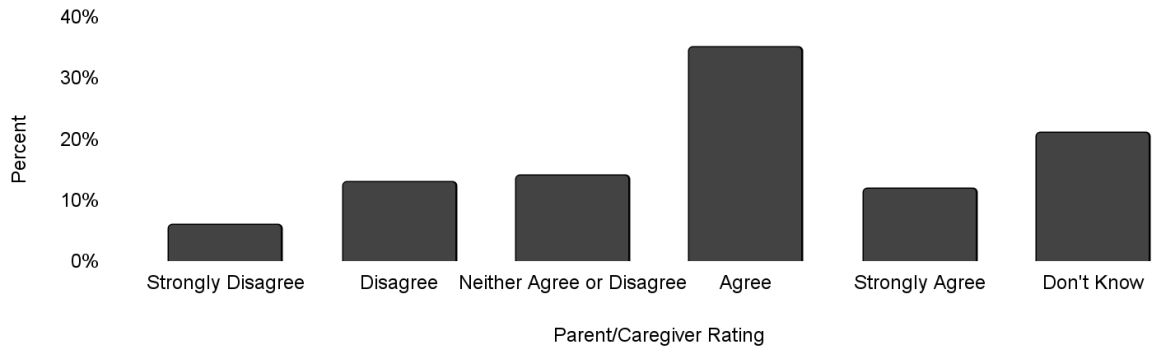
PERSPECTIVES ON SPECIAL EDUCATION SERVICES

Speech and Language Services

The development of independence is strongly related to the ability to communicate. Representing approximately 87% of students at both schools, it was the area of need most documented on students' IEPs. Communication also came up frequently in parent/caregiver responses about goals for their children. Most children are non-verbal and/or have complex communication needs; therefore, developing an effective communication system that their child can use to communicate is highly important according to the parent/caregiver responses to this question.

Based on survey ratings, a total of 47% of parents and caregivers agree that speech and language services are helping their children meet communication goals. Interestingly, approximately 21% rated that they are unsure.

Figure 18: Parent/Caregiver Perceptions of How Well SLP Services Are Helping Their Children Meet Communication Goals



Participants' comments reflect appreciation for the available support and find the SLP staff excellent.

> "Having an SLP team on site at the school is a huge asset for students, teachers and parents. As a non-verbal student, my daughter has made tremendous progress in her communication skills thanks to the guidance provided by the school SLPs and the daily follow-through of recommendations by her classroom teachers. The SLPs have also provided annual workshops for parents to help us support our children's communication and self-regulation skills at home. Last year, the SLP helped me coordinate a referral with CHEO Augmented Communication Clinic where she was assessed and provided with an electronic communication device which she now uses at school and at home." Parent

A parent of one of the older teens has seen very good results in her child's communication, but another parent of a child who is non-verbal said they have struggled with a lack of consistency in terms of communication systems.

> "What happens is we try a new system and then we try a new[er] system and we're still after so many years, this communication is the most important [but] I feel like there isn't that continuity." Parent

Ratings of *Disagree* to *Strongly disagree* reflect perspectives that the development of their children's communication goals is hampered by a lack of speech language support due to the high number of students at the school who need SLP services. Parents and caregivers would like to see more speech and language services and support (e.g., SLPs and CDAs) and they wondered about more technology to aid with communication.

Those parents and caregivers who were unsure about the level of speech and language support their child receives commented about a general lack of communication with them about what is available for their children.

During interviews, SLPs and CDAs were brought up numerous times by all four of the administrators as being key to students' learning and well-being.

> "The SLP will sort of observe and consult. They're part of our [multidisciplinary] team … If there are communication needs then [the SLP] will be able to identify that … develop a set of recommendations, share with the CDA who will implement them in the classroom." Administrator

CDAs also offer classroom educators communication resources and tools:

> "The best thing we have is [our] CDA who helps to create those resources. She will take an activity and provide boards for the class picture boards, power points, for stories with PECs in them … She shares whatever resources she needs with the entire school population." Administrator

CDAs are essential to supporting students' quality of life and strong advocates for students. CDAs have helped students communicate their basic needs so they are "able to tell us what they want, … [the CDA] creates a voice for our students and she supplements all of the programming." Administrator

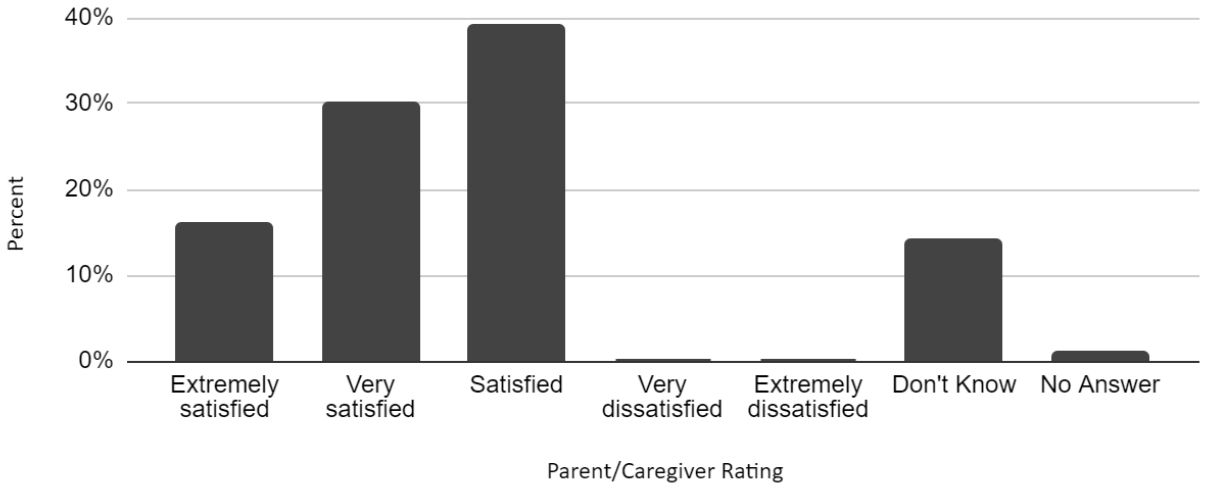
Behavioural and Social Emotional Support

School administrators also spoke highly about the contributions of the ASD/DD team, Learning Support Consultant, school psychologist, school social worker, and BCBAs. BCBAs currently visit the schools on an as-needed basis, but administrators stressed the importance of increasing their availability onsite.

Classroom Resources

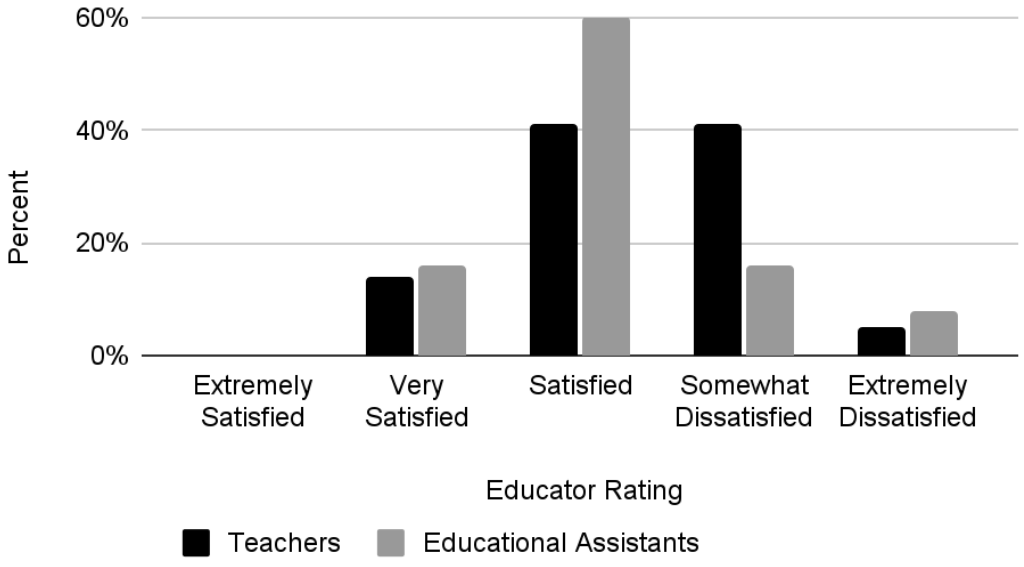
Most parents and caregivers rated average to extreme satisfaction with the resources (i.e., materials) used in their children's classrooms to support learning. Interestingly, 14% indicated that they don't know what resources are used in their child's program.

Figure 19: Parent/Caregiver Perceptions of the Classroom Resources Used to Support Their Child's Learning



In the educators' survey, 55% of teachers and 76% of EAs rated that they are *Satisfied*, or *Very satisfied*, with their access to the resources they need to develop and implement students' individualized programming. However, 45% of teachers are *Somewhat* to *Extremely dissatisfied* with their access to resources (see Figure 20, below). For example, a few teachers mentioned that resources provided to schools by central departments are not always appropriate for teaching students who have severe DD. Other comments suggested that finding and/or creating learning materials for their students can be challenging.

Figure 20: Educator Ratings of Access to Resources to Support Student Learning



Assistive Technology and Adaptive Equipment

The terms assistive technology and adaptive equipment are closely related and are sometimes used interchangeably. In general, assistive technology is any tool, device, or software that helps individuals perform tasks with more ease and/or independence whether they have a disability or not (e.g., communication devices). Adaptive equipment is specialized equipment specifically designed for people with disabilities. Similar to assistive technology, it is used to support daily living activities, and it includes medical equipment.

Parents and caregivers were asked three questions relating to assistive technology and adaptive equipment. Figure 21, below, indicates that just over 50% of respondents reported their children require assistive technology and over 40% of parents/caregivers indicated that their child needs adaptive equipment. Over 20% in each case remarked they were unsure if their child required technology and/or equipment and over 30% reported not knowing how much their children are using assistive technology and adaptive equipment at school (see Figures 21 and 22, below).

Figure 21: Parent/Caregiver Perceptions of Their Child's Need for AT and Adaptive Equipment

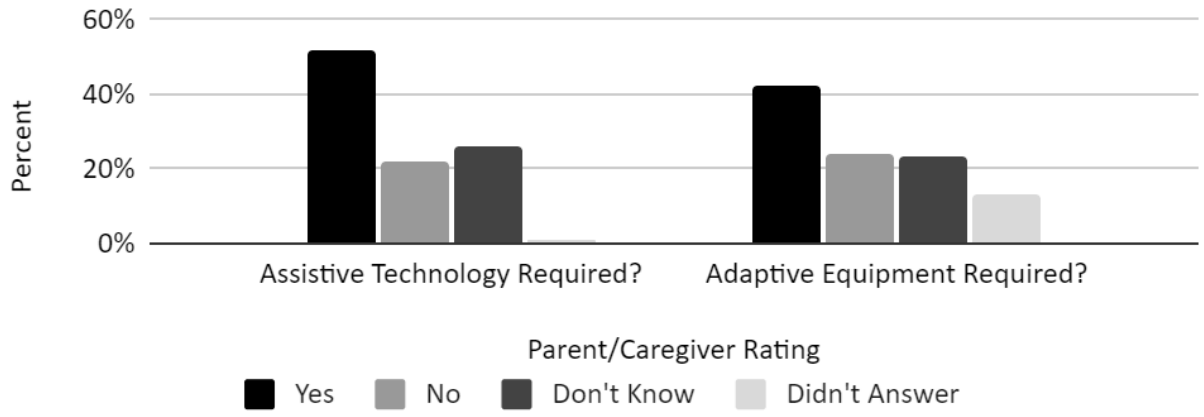
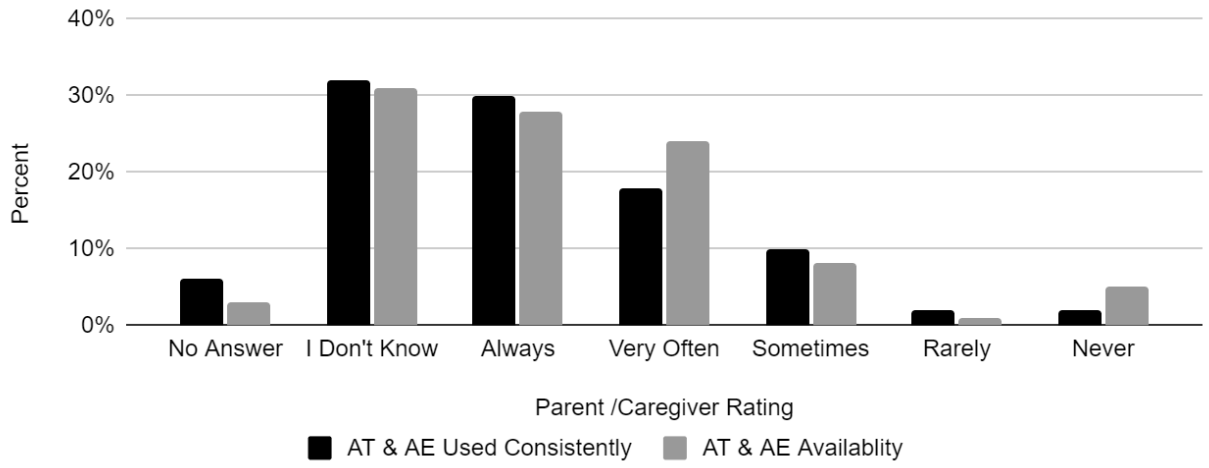


Figure 22: Parent/Caregiver Perceptions of How Consistent AT and Adaptive Equipment is Used and Its Availability



Parents and caregivers who rated, *I don't know*, explained that assistive technology and adaptive equipment are not talked about with them: for example, one parent assumes it is being used, another hasn't been told, and two parents and caregivers don't know but hope it is being used.

One respondent with a rating of *Never or Rarely satisfied* explained that the use of assistive technology was slow to begin for their child, and there was a lack of continuity between what technology and equipment was used at school compared to the home. Lower ratings also reflected beliefs that there are not enough staff to ensure that technology is used consistently to support their children's learning.

Rating assistive technology and adaptive equipment as *Very often* and *Always available* to be used was associated with positive comments from parents and caregivers about how their children have benefited from its use. For example, one parent/caregiver noted how their child "is using the tablet more as a tool than a toy. Learning alphabets, numbers, shapes, colours, crosswords, matching cards, maze, games."

Another parent/caregiver shared this remark:

> "Over the years I have observed a lot of progress in my daughter's learning and it has been enabled by the availability of assistive technology and adaptive equipment at the school as she needed it. For example, her communication tools have evolved from 1-2 picture cards taped to her desk to 2-4 button Go Talk communication boards, to binder/booklet, to an iPad. Her seating is reviewed yearly, from wiggle chairs to exercise balls to sensory cushions among others, all of which has helped with her ability to focus on learning tasks. Specialized gym equipment such as adaptive trikes, kick sleds, swings, and climbing structures have helped her make strides in gross motor skills and foster a love of active fitness activities. We have purchased several pieces of adaptive equipment and

assistive technology for our daughter to use at home based on her progress with them at school." Parent

Educator survey questions were designed not only to explore how available they perceived assistive technology to be, but also their level of confidence in its use with students. Of the educators who responded, 55% of teachers and 75% of EAs rated themselves *Fairly* to *Completely* confident in their ability to use assistive technology to support students' communication and learning goals (see Figures 23 and 24, below).

Figure 23: Educators' Confidence in Their Use of Assistive Technology

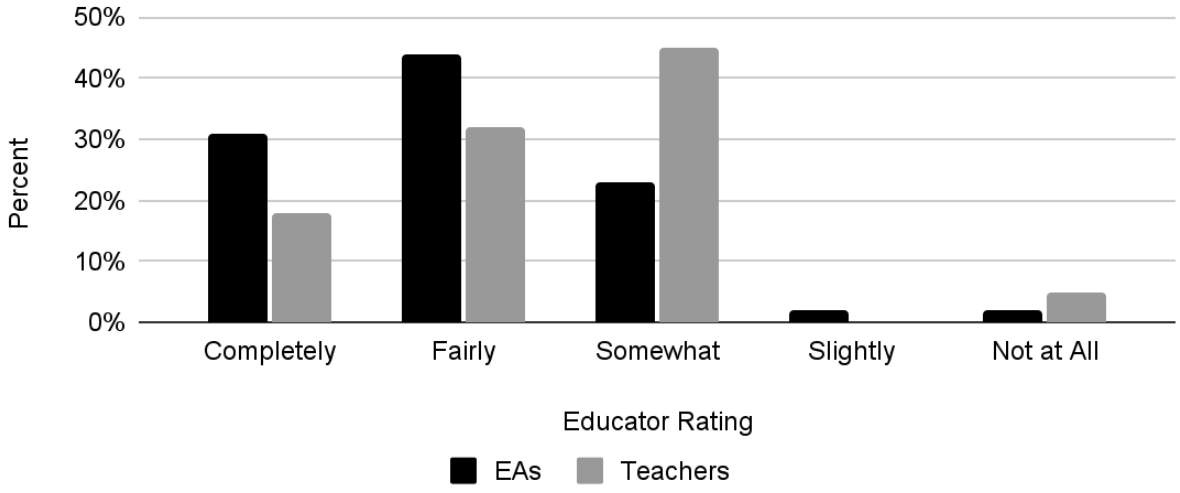
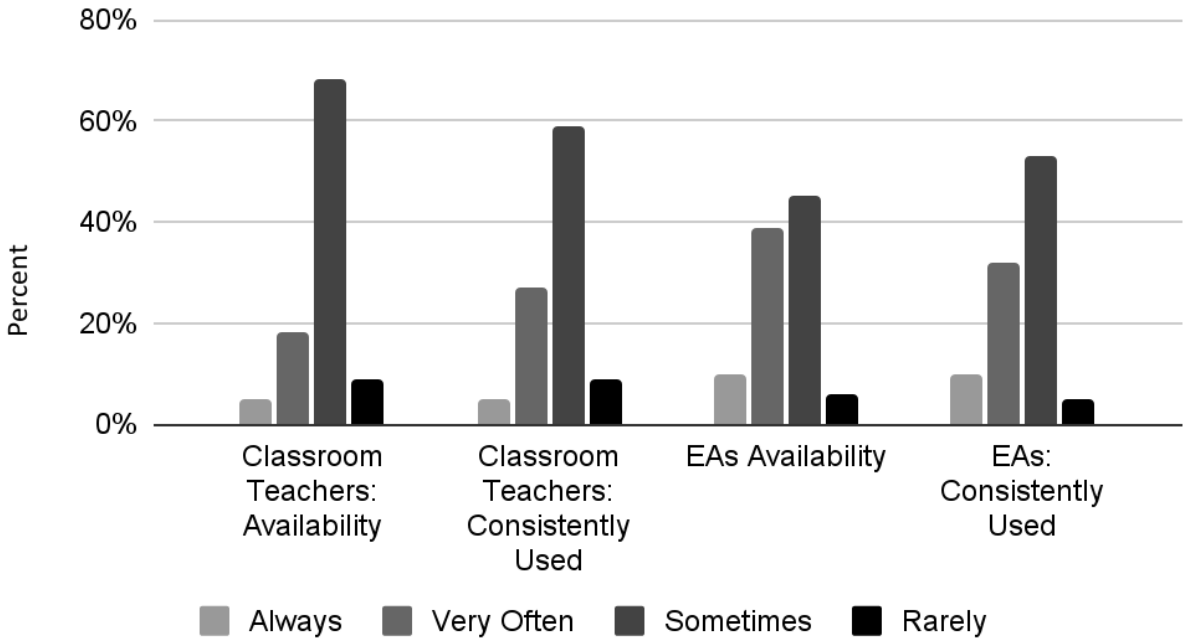


Figure 24: Educators' Perceptions of How Consistently Assistive Technology is Used and Its Availability



The majority of educators rated that assistive technology is sometimes available to very often available. While both EAs and teachers voiced the importance of technology to assist students' communication and learning, some expressed concerns about barriers preventing students from accessing it. For example, teachers with lower ratings of the availability of equipment indicated that older equipment in the school often doesn't work and/or there are shortages of equipment. Comments and concerns also included questions about access to iPads and communication apps as well as wanting to ensure the appropriate technology is in place in order to work on students' IEP goals.

One EA noted that some senior students may not be learning to use communication technology early enough in their school experiences.

> "I work with senior students and they come to my class with no way to communicate basic needs. We have chairs and tables for them but no way to communicate their needs." EA

Teacher Capacity and Professional Learning

Teachers mentioned how experiences working in different specialized program classes (e.g., ASD classes) have helped them in their current roles. Classroom teachers also shared how working with other professionals such as speech language pathologists, occupational therapists and physiotherapists has positively influenced their instructional practice and their ability to respond to the complex needs of their students.

Research shows that good instructional practices include the use of differentiated instruction (DI). DI is an approach to lesson planning, teaching, and assessment that is based on the individual learning profiles of students and takes into account their strengths, interests, and readiness to learn. Skills in differentiating instruction are essential for educators in order to engage students and support students' achievement of the learning expectations documented in their IEPs.

Understanding educators' levels of confidence implementing DI provides insight into how well equipped they perceive they are to differentiate instruction with their students. Therefore, educators were asked to rate their level of confidence using DI. As many as 77% of classroom teachers rate themselves as *Fairly* or *Completely* confident in their abilities to differentiate instruction.

Classroom teachers who rated themselves *Fairly* or *Completely* confident in being able to differentiate instruction for their students reference their years of experience working with students with special needs, the importance of getting to know their students, and the importance of understanding their students' complex needs. Interestingly, educators who rated their self-confidence higher alluded to the challenge of implementing DI when trying to manage a range of student behaviours in the classroom.

One teacher who rated themselves at the lowest level of confidence remarked that the range of needs of students in the class makes it challenging to engage students in learning. For this teacher, they find much of their time is spent "trying to keep everyone safe and happy then hope we get to the education of the students." Another teacher who has been teaching at their school for five years indicated that they still have "so much to learn in terms of providing each student with what they need to be successful … [and] do not know all of the resources available to me or the students."

A more experienced teacher wrote about some of their challenges of differentiating instruction effectively.

> "I have a lot of experience. I am able to change my program to suit the groupings of students I teach. However, the real success of differentiation depends on adequate staffing and access to resources within and without the classroom space …" Teacher

In terms of professional learning, teachers expressed a preference for learning and sharing with peers and commented that more time to share best practices with similar grade and similar program teachers increases their professional capacity. However, it was pointed out that these opportunities are infrequent.

> "I liked some of the PD we'd have with our sister school [CB] that would focus on things relevant to our sites. I remember a great sensory training PD and lots of communication …" Teacher

Teachers who expressed general satisfaction with the accessibility of instructional materials and resources indicated there is not enough time for learning how to effectively use them for teaching students.

> "The Board is really trying, we do have so much available. Yay! What we lack is time to access it and explore. Our PD is now absorbed with provincially mandated learning that focuses on equity training etc. All good stuff BUT we have very little time to discuss new things and turn around and have to use it in the classroom the next day." Teacher

> "We have very little time in any PD to work towards using new resources, materials and programs. This time is invaluable for working as a school team to further learn, explore and evaluate resources and brainstorm." Teacher

Educational Assistant Capacity and Professional Learning

EAs largely attributed the development of their knowledge and skills to post-secondary schooling (e.g., Developmental Services Worker diploma) and a range of experiences working with people who have complex needs.

> "As with many of my colleagues I have worked in primary, junior and senior classes. I have done respite work with special needs children and families. I have worked with special needs adults in group homes and day programs. My educational background is in behaviour management, communication and childhood development. This 360 degree view and experience allows me to prioritize what is most important for them as students, what will most benefit and enhance their family life and what skills will help them the most in the future." EA

Mentoring experiences and co-learning with other educators and professional staff were also mentioned as contributing to the professional capacity of EAs. One EA commented that observing colleagues using effective strategies was the number one influence on their practice.

In addition, EAs expressed a need for more professional learning in areas such as the use of communication devices and adaptive technology.

> "It would be nice to have workshops and training relevant to our population, non-verbal students, with developmental disabilities, and assist in dealing with behaviours [noting that] sexual abuse training is great for awareness, but it would be nice to know the signs of children who are non-verbal." EA

All four administrators spoke about how professional development opportunities are usually developed and organized centrally and they often do not align with the specific professional learning needs of staff at their schools. In these instances, administrators do their best to adapt these professional learning presentations for their staff. One administrator shared that their school's most successful professional learning session was initiated by teachers at their school and led by a central instructional coach. It was the most effective learning experience the staff had for the past five years.

A recent shift in the last five years has been to focus on improving literacy and numeracy instruction at both schools. One success story was an in-school literacy support group where on some days teachers stay after school to share resources and professional experiences. Principals want to nourish this kind of learning environment in their schools. However, the shift to include literacy and numeracy instruction for all

students has challenged the mindsets of some staff who believe in prioritizing the instruction of daily living skills and personal care skills.

Educator Teams

Administrators spoke about the traits of effective educator teams (teachers and EAs) and the positive impact they have on program delivery and outcomes for students. They all remarked on the importance of educators having good communication skills and collaboration skills. In addition, administrators commented that educators at the schools believe in the potential of the students and they tend to remain at their school by choice. Their shared values create a special community.

> "I've never seen a team environment like it is here. I've been in resource rooms, I've been a learning support teacher with EA support, but it's not like this. It's you know, these teams know their students inside and out and know each other really, really well too. So it's like a little family … You have to be a good team player. It helps if you're a good communicator and it helps if you are interested in understanding behaviours." Administrator

Administrators emphasized that educators at the two schools have to have the ability to thrive in routine, but also demonstrate an ability to be flexible in managing unpredictable behaviours and a wide range of complex health care needs.

PERSPECTIVES ON FACILITIES

Physical Environment
In focus group discussions, parents and caregivers spoke about how important it is for school facilities to provide an environment which is responsive to their children's physical and social-emotional needs.

> "For those individuals it is important that they have something built in the class so they can go out, take that break and then come back to their circle, continue with their fine motor or other academic activity. So that has been working well. There could be more things in the class, or in the school space, like more swings or more gross motor activities that can help these kids because they need that physical input to study and calm their body before they engage their brains and minds to focus and learn something." Parent

Another parent expressed their appreciation for how the school is maintained.

> "School facilities are well maintained and have been improved upon over the years (e.g., new playground, new accessible washrooms, etc.). I appreciate the ongoing investments made in the school building to keep it safe and engaging for students." Parent

The parent of a child with complex health care needs who uses a wheelchair commented that they would like to see additional play structures or outdoor activities for their child.

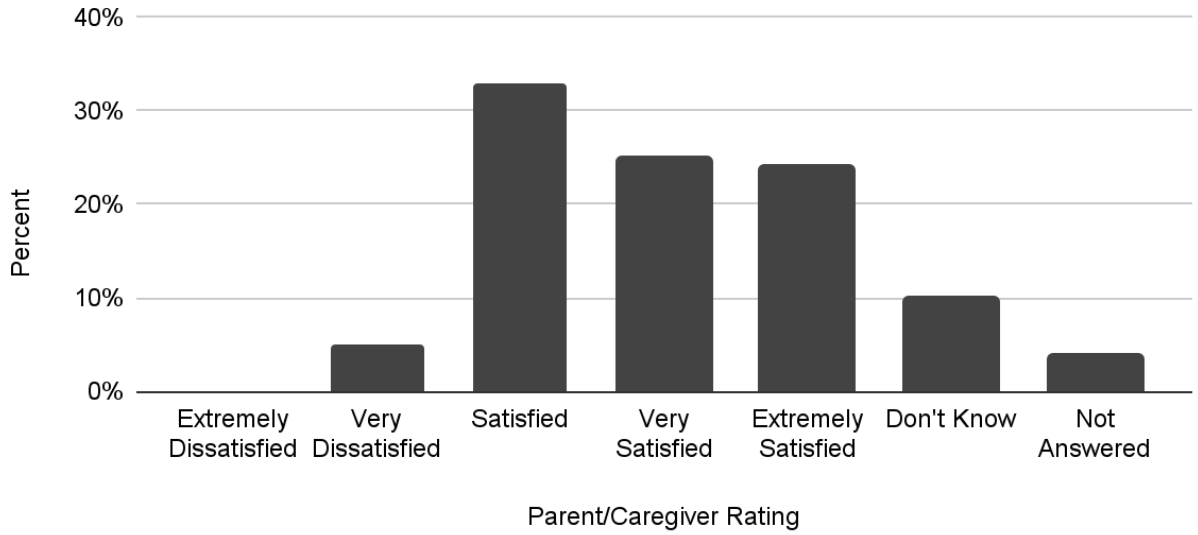
> "It would be nice for them to have a wheelchair accessible swing in the primary yard or activities for him to be able to access from a wheelchair." Parent

Staff and administrators emphasized the importance of spaces in the school to teach daily living skills, space for LSS staff and community based staff to provide professional services to students (e.g., OT/PT) and space for students to take body breaks.

However, both groups mentioned a lack of storage space for specialized equipment and the challenges of storing equipment when it is not in use. It is common for equipment to be stored in hallways and/or it may be stored in other parts of the school which limits access to it and requires a staff member to leave the classroom for periods of time.

Accessibility
When surveyed about accessibility, parents and caregivers are mainly satisfied that their child's school, classrooms, and playground are free of barriers. Parent and caregiver ratings are mainly *Satisfied* to *Extremely satisfied* (see Figure 25, below).

Figure 25: Parent/Caregiver Satisfaction with Accessibility



Parents, caregivers, and staff expressed concerns about the physical size (i.e., square footage) of classrooms at both schools and the amount of specialized equipment in them. Dissatisfaction was related to classrooms being too small for eight students especially when some of the students need specialized equipment that takes up space.

> "I would prefer somewhere in the middle of satisfied and very satisfied - somewhat dissatisfied maybe? The physical and medical needs of the students are huge and the physical space simply isn't big enough … and many of the classrooms aren't big enough to house the ever growing needs of eight students and all of the paraphernalia CB students come with." Teacher

These concerns were echoed by administrators who commented on the needs of students who use wheelchairs and some of the essential equipment they require.

> "The building is far too small. Each classroom is too small in order to accommodate the physical needs of our students. We have two and three wheelchairs in classrooms … We don't just have the wheelchairs in the classrooms, we have standing frames, we have walkers … Our hallways are narrow and aren't able to have two wheelchairs cross in the hallways." Administrator

Limited space in classrooms was also equated with noisier classrooms and the negative impact this can have on some students whose sensitivity to noise may trigger dysregulated behaviour.

> "The sound is huge … noise, movement, interaction of staff and students in the classroom. Really, in those small places it can really trigger students and that just escalates others." Administrator

> "... there are often times that I don't feel my students are safe. They are in close proximity to other students that can become aggressive. We don't always have the space for safety." Teacher

Safety

Some parents who rated *Very satisfied* to *Extremely satisfied* on the survey indicated that the classrooms can be small, but most perceive the rooms, the school and the playground to be safe spaces. For the most part, parents and caregivers expressed appreciation for the safety measures that are in place at Crystal Bay and Clifford Bowey (i.e., fenced yard, alarmed doors). Parents/caregivers whose children attended community schools in semi-integrated and regular classroom settings find that Crystal Bay and Clifford Bowey offer a level of safety they did not previously experience.

> "The amount of relief when I toured the school and realized that if [child] pulls a door there's a bell that goes off. I was like 'Oh thank goodness,' because he went to the other school and he was in a mainstream class last year and there's a day where they called and said you have to come pick him up, he's found a way to leave the area - the fenced area … Just to say, how incredibly grateful I am because my child is not on the road, my child is learning, this facility has been amazing and do I understand wanting to have them in the community, in a DD class, like in a semi-integrated, great, we all want that, we want our children to thrive but wherever that is, but right now this is where he needs to be. He has got boundaries." Parent

Another parent expanded on how, in their perspective, their child's health and safety are best served at their present school:

> "I think society is better for knowing our children just as much as our children need to know society. However, when it comes to a child's safety this facility is the best. So my child at his semi-integrated class was scared, he was stressed, he was afraid, he didn't know the teachers … he wasn't finding a boundary and that made him terrified and he would run on the street everyday … they didn't have a fenced facility or a staff that were used to this kind of behaviour he would run on the street." Parent

JURISDICTIONAL SCAN

The following jurisdictional scan provides an overview of programs and services for students with moderate to severe developmental disabilities who are learning in special education classes at nine school boards across the province. This scan offers an overview of Ontario's three largest public school boards (Toronto, Peel, York), two boards with comparable populations to the OCDSB (Thames-Valley and Durham), two smaller boards (Limestone, Upper Canada), and one that shares the same boundaries as the OCDSB (Ottawa Catholic).

Information about each district was gathered from school board websites and special education plans. Additionally, interviews with special education leaders from six districts occurred. The comparison is based on the types of special education classes each district offers for students with developmental disabilities, as well as educational

programming, staffing, and specialized supports and services. The following is a list of the nine districts from largest to smallest:

1) Toronto DSB*
2) Peel DSB*
3) York Region DSB*
4) Thames Valley DSB*
5) Durham DSB
6) Hamilton-Wentworth
7) Ottawa Catholic School Board*
8) Upper Canada DSB
9) Limestone DSB*

* denotes school board leaders that were interviewed

Toronto District School Board

General Overview

The Toronto District School Board (TDSB) is the largest school board in the province of Ontario. It serves approximately 245,000 students in 583 schools across Toronto. According to the TDSB website, 23% of students were born outside of Canada and there are more than 120 languages spoken by students and their families.

Service Delivery Model

The TDSB's Special Education Plan describes a range of special education supports and services for students with special needs. This includes in-school and itinerant support as well as placements in regular classes, special education classes with partial integration, full-time classes, and congregated sites. Placements are based on exceptionalities with the recognition that most students with special education needs can be served within their community schools with the appropriate support.

In the TDSB, full-time special education classes are referred to as Intensive Support Programs (ISP) and they are located in designated schools. There are several types of ISPs including classes for students with autism, physical disabilities, and developmental disabilities. In terms of inclusion, there is an expectation that students in ISPs be given opportunities to participate in all aspects of school life.

As early as kindergarten, students may be considered for the Diagnostic Kindergarten Program (DK) which is a special education class for students who have complex medical and/or cognitive needs which may include a combination of needs in the following areas: intellectual, communication, and behavioural as well as challenges in daily living. Each class has a maximum of eight (8) students with one special education teacher, one EA, and a noon hour assistant.

Students in grades 1 to 12 with a developmental disability may be placed in a regular class with appropriate support, or in a full-time ISP for students with developmental disabilities. These classes are located in community schools and the maximum class size is 10 students with one special education teacher and one EA. Students who

need more specialized support and staff expertise may be considered for placement at a congregated site.

In total, the TDSB has 12 congregated schools: six (6) elementary schools and six (6) secondary schools. The congregated schools serve students with complex developmental disabilities, communication needs, behavioural needs, medical needs and/or physical disabilities. Three of the elementary schools provide programming to students up until the year in which they turn 21 years of age. Each elementary school has an average population of 70 students, is culturally diverse, and has a proportionally higher representation of males. Students who attend these schools require specialized services, supports, and resources. Their program focuses on functional curriculum, daily living skills, and a means of communication for every student. Students work on alternative curriculum expectations with the goal of maximizing independence.

There are a maximum of eight (8) students per class at the congregated sites with one special education teacher and 1.5 EAs. In classes with students with multiple physical disabilities, there are two EAs as well as one noon hour assistant.

The secondary congregated schools provide alternative programming for exceptional students identified with Mild Intellectual Disability, or Developmental Disability. Most students are working on non-credit courses although some of the schools offer both Ontario curriculum and alternative program courses. A main focus for these students is preparation for the community and/or workplace with an emphasis on the development of literacy and numeracy skills, life skills and work skills.

Consultative and direct service is provided to students in congregated schools by Professional Support Services staff such as Speech Language Pathologists, Occupational Therapists, Physiotherapists, Psychologists, Social Workers, Blind/Low Vision and Deaf/Hard of Hearing Teachers, and Board Certified Behaviour Analysts.

Peel District School Board

General Overview

The Peel District School Board (PDSB) is located to the west of Toronto and includes Mississauga and Brampton. The student population is approximately 153,000 and there are a total of 259 elementary and secondary schools. This makes it the second largest school district in the province.

Service Delivery Model

In its special education plan the Peel District School Board states that it “is committed to providing the most appropriate educational opportunities for all students where the student is integrated with other students, unless the educational needs of the student indicate that the educational program for the student with special needs must be provided at a different placement” (PDSB Special Education Plan).

The PDSB has three types of fully self-contained special education classes for students with developmental disabilities at the elementary and secondary levels: DD, DD/ASD,

and DD/Special Needs. The majority of special education classes are organized geographically in community schools and opportunities for integration are most often provided through school activities. Recently, the district has been responsive to changing needs by opening more DD/ASD classes and reducing the number of DD classes.

Developmental Disability Class:

- For students identified as DD who require alternative programming and/or modified Ontario curriculum;
- Intermediate (Grades 6 to 8) and Secondary;
- Maximum of 10 students;
- Intensive support in the areas of functional communication skills, social skills, literacy and numeracy skills and independence;
- One special education teacher and three EAs.

Developmental Disability/ASD Class:

- For students diagnosed with DD and ASD who have significant adaptive functioning challenges and complex communication needs (e.g., non-verbal communication);
- Primary/Junior classes (Grades 3 to 5), Intermediate (Grades 6 to 8) and Secondary;
- Maximum of six (6) students;
- Programming for functional academics, communication skills and independent living skills;
- One special education teacher and three EAs.

Developmental Disability/Special Needs Class:

- For students with a developmental disability and a physical disability who are considered to be medically fragile and technology dependent;
- Primary/Junior (Grades 1 to 5), Intermediate (Grades 6 to 8) and Secondary;
- Students often have limited mobility, or use a wheelchair, and require support for feeding, toileting and daily living needs;
- Maximum of six (6) students;
- Alternative programming with support to access the curriculum;
- One special education teacher and three EAs and in many cases students require nursing support at school.

Secondary Developmental Disabilities Resource Program:

- Placement is partial integration;
- Non-credit program where students with developmental disabilities are integrated into the regular school population with support;
- Students remain in the program for 4 or 5 years and then transfer to the Secondary Developmental Disabilities Transition Program (see below).

Secondary Developmental Disabilities Transition Program:

- Two year program for students 19 to 21 years of age;

- Preparation for work and/or community living that includes job placements;
- Maximum of 10 students with one special education teacher, one Work Experience Coordinator and up to 4 EAs.

The PDSB has more than one job category for EAs based on different areas of responsibility. For example, school based support for personal care and safety versus school based medical responsibilities versus itinerant support for dual diagnosis/mental health.

Itinerant support is also provided by professional staff (e.g., Board Certified Behaviour Analysts and Occupational Therapists).

York Region District School Board

General Overview

Geographically, the York Region District School Board (YRDSB) encompasses urban and rural areas to the north and east of Toronto including Richmond Hill, Markham, Newmarket, Vaughan, Aurora, and Stouffville. Across the region there are 213 schools with a total enrollment of over 122,000 students in kindergarten to grade 12.

Service Delivery Model

The YRDSB provides a continuum of programs, services and supports for students who are identified as exceptional. The range of program options includes congregated special education classes, however, integration is a focus for all students in special education classes. In general, placements are special education class with partial integration.

Special education classes are located across the district in community schools, and the location of classes is carefully considered to ensure the facility is appropriate for the needs of program class students. For example, some schools with special education classes have areas designated as “calming spaces” for students who may become dysregulated.

Special education classes for students with developmental disabilities have a maximum of 10 students per class and one special education teacher and EA support.

Classes for kindergarten to grade 12 students who have complex health care needs have a maximum enrollment of six (6) students per class. As a starting point, these classes are staffed on the basis of one special education teacher and two EAs.

The YRDSB also has “complex needs classes” for students who require intensive support such as students with a dual diagnosis. These students typically have higher safety and behaviour support needs, so while the maximum class size is six (6), some classes may have fewer students depending on student needs. Each class is staffed with one special education teacher and two EAs. Services are provided by itinerant Board Certified Behaviour Analysts and a coordinating psychologist.

The YRDSB has two categories of EAs. The majority of EAs are Developmental Service Workers and a smaller number are Intervention Support Workers who specialize in understanding behaviour and gathering and tracking data.

Thames Valley District School Board

General Overview

The Thames Valley District School Board (TVDSB) is situated in London, Ontario and includes the rural areas of Elgin, Middlesex and Oxford counties. The District has 184 schools and serves a population of approximately 84,000 students.

Service Delivery Model

The TVDSB uses a tiered intervention approach to service delivery with a focus on the use of data to inform programming recommendations and decisions. The model is based on a collaborative team approach that takes into account various perspectives, promotes inclusion, and is responsive to students' strengths and needs.

The TVDSB offers a range of Ministry of Education placements from indirect support in the regular classroom to special education classes.

In the early years (kindergarten to grade 3), the emphasis is on providing services and support for students with developmental disabilities in the regular classroom. If more intensive support and services are needed, students may be considered for a congregated class starting in grade 4.

Developmental Education Class:

- Congregated classes for students diagnosed with an intellectual disability;
- Elementary - six (6) to 10 students (fully self-contained);
- Secondary - six (6) to 10 students (may be fully self-contained or partial integration);
- Program focuses on the development of functional communication, literacy, and numeracy skills as well as life skills and work skills;
- Program may be based on Ontario curriculum and/or alternative expectations;
- Integration opportunities are explored within the wider school community;
- One Special Education Teacher and two EAs;
- Consultation services from members of the board's Special Education Team, as needed.

Note: Class sizes may vary depending on the complexity of student needs. In the case of students who have complex health care needs, the maximum class size is six (6).

Durham District School Board

General Overview

The Durham District School Board (DDSB) has a similar population to the OCDSB with approximately 76,000 students. It has a total of 136 elementary and secondary schools in Oshawa, Pickering, Ajax and Whitby, and serves the rural townships of Uxbridge, Brock and Scugog.

Service Delivery Model
The DDSB service delivery model places a strong emphasis on inclusion and this is reflected in the description of their model. The DDSB "provides a range of pathways, programs, opportunities and services that are responsive to individual identities (including intersecting identities), strengths and needs. Students with special education strengths and needs are supported in inclusive environments that enable them to develop their potential" (DDSB Special Education Plan).

The DDSB offers eight types of special education classes which are partially integrated or full-time. Two of the classes are specifically for students with developmental disabilities: the Practical Learning Program and the Developmental Program. There is also a special education class for students whose primary diagnosis is Autism Spectrum Disorder (ASD).

Practical Learning Program:
- Partial integration or full-time special education classes for students with intellectual disabilities, developmental disabilities and/or autism;
- Maximum class size is 10;
- One special education teacher and a minimum of two EAs;
- Programming includes functional literacy and numeracy (alternative expectations or Ontario Curriculum expectations), communication skills, independent living skills, life management skills and healthy living skills;
- Supported by the Board's multi-disciplinary professional support staff.

Developmental Program:
- Full-time special education class for students who have significant physical, intellectual or developmental disabilities;
- Students may also be medically fragile and/or require significant sensory support;
- Maximum class size is six (6);
- One special education teacher and a minimum of two EAs;
- Students work on alternative curriculum with a focus on communication, fine and gross motor skills, social skills, sensory skills and personal development skills;
- Opportunities for integration and leisure opportunities within the community school;
- Opportunities for community experiences;
- Board multi-disciplinary professional support as well as community based OT and PT support.

Structured Learning Class:
- Special education class with partial integration for students diagnosed with ASD;
- Maximum class size is six (6);
- One special education teacher and a minimum of two EAs who provide support in the special education class and for integration;
- Students work on Ontario Curriculum expectations or alternative expectations;

- Programming in the following areas: literacy and numeracy skills, communication skills, social skills and vocational skills;
- Supported by the Board's multi-disciplinary professional support staff.

Hamilton-Wentworth District School Board

General Overview

The Hamilton-Wentworth District School Board (HWDSB) has approximately 50,000 students and a combined total of 93 schools.

Service Delivery Model

The HWDSB's service delivery model for special education emphasizes equity of outcomes by providing a continuum of special education supports and services. This may include in-school support, itinerant staff support, short-term intervention services, and placement in a regular class, or a self-contained class. For students in self-contained placements, opportunities for learning in regular classrooms are considered based on student interests and strengths as well as parent/caregiver consultation. In addition, the HWDSB has a special education school that is similar to Crystal Bay and Clifford Bowey in that it is a segregated learning environment.

Developmental Disability Self-Contained Class:

- Supports students with significant intellectual disabilities and alternative communication needs with a focus on significantly modified curriculum expectations;
- Maximum of 10 students.

Elementary Multiple Self-Contained Class:

- Supports students with multiple exceptionalities with significant physical, communication and cognitive needs;
- Maximum of six (6) students.

Glenwood Special Day School:

- A specialized program site for students ages five to 21 years of age who have an intellectual disability;
- Students are organized into class groupings, rather than grades, and these groupings are developed with the following considerations in mind: age, physical/medical intervention, academic ability, as well as life skills and social skills;
- Small staff to student ratio;
- Alternative program with a focus on communication skills, social skills, pre-academic, academic and vocational skills with goals documented on each student's IEP;
- In-school professional support from a Communication Disorder Assistant, a Kinesiologist, and a Developmental Specialist who provides sensory development services to students;
- The school has a life skills room, Snoezelen room, and a fully accessible interactive playground.

Ottawa Catholic School Board

General Overview

The Ottawa Catholic School Board (OCSB) serves the greater Ottawa area with a population of approximately 44,000 students in 84 schools.

Service Delivery Model

The OCSB offers a range of placements and services to exceptional students. Although the goal of the school board is to educate students with special needs in regular classrooms within community schools and with age-appropriate peers, a specialized placement may be necessary for students with complex needs.

In its special education plan, the OCSB states that, "all students placed in a special education class are integrated for a period of time with their peers in the regular classroom, therefore all of the Board's special education classes are *special education classes with partial integration*."

There are 10 full-time Developmental Education Program classes for students with significant intellectual disabilities who have high medical and/or physical needs - five elementary classes and five secondary classes. The classes are located in community schools and the maximum class size is 10 students with the focus on developing functional skills in areas such as communication, self-care, and social skills. Each student in the program is assigned to a homeroom class to participate in activities with age-appropriate peers and integration activities are based on students' strengths and interests.

JK/SK Assessment Program:

There are 11 special education classes for students with generalized developmental delays including, but not exclusive to, students with Autism Spectrum Disorder. These classes are capped at six students per class.

Upper Canada District School Board

General Overview

The Upper Canada District School Board (UCDSB) has 78 elementary and secondary schools and a population of approximately 27,000 students. Geographically, it is one of the largest school districts in the province covering 12,000 square kilometres. The district stretches to Kingston in the west, the Quebec border in the east and south of the OCDSB to the St. Lawrence River. Serving the counties of Lanark, Leeds-Grenville, Stormont-Dundas-Glengarry, and Prescott-Russell.

Service Delivery Model

The UCDSB provides a range of programs and services for students with special needs and focuses on an inclusionary approach.

The programs and services within special education are broadly aligned with the various exceptionalities and definitions provided by the ministry. If students require more intensive instructional intervention, this may include withdrawal from the regular classroom to a small group or individual setting in their home school. When students are challenged with more profound needs, the board provides specialized congregated programs to respond to their unique learning needs.

Limestone District School Board

General Overview

The Limestone District School Board (LDSB) serves more than 20,000 students in 55 schools across the city of Kingston and throughout the surrounding geographic area including the Townships of Central, North, and South Frontenac, and the Town of Greater Napanee.

Service Delivery Model

The Limestone District School Board's approach to special education is based on the philosophy that the school is the centre of an inclusive community. Their service delivery model emphasizes the provision of individualized support through program delivery in the regular classroom. More intensive support may also be provided through resource withdrawal, special education class placements and specialized district programs based on the Tiered Model of prevention and intervention.

In general, the LDSB has been moving towards an inclusive model for all students with special needs including those identified with a developmental disability.

The service delivery model used to support students with a developmental disability is called School to Community Services (SCS). Elementary and secondary students with developmental disabilities attend their home school where they receive direct service and programming development support from SCS teachers who have been hired centrally.

However, within each secondary school, students with developmental disabilities may be grouped together with a maximum of 10 students in each class and the placement is partial integration.

Grade 1 to grade 8 students with Autism Spectrum Disorder who meet criteria may be offered a placement in one of four full-time District Autism Classrooms. These classes provide specialized instruction to meet the needs of students with ASD who use speech as their primary form of communication. They are staffed with one teacher and 1.5 EAs and the program focuses on communication, socialization, behaviour, and academics.

Students with ASD and DD receive support in their community school from the School to Community Team.

Jurisdictional Scan Summary
Of the school boards included in the jurisdictional scan, two have congregated sites similar to Clifford Bowey and Crystal Bay - the Toronto District School Board and the Hamilton-Wentworth District School Board. However, the majority of school boards locate their special education classes in community schools.

In general, districts organize special education classes on the basis of exceptionalities and they are guided by class sizes according to Regulation 298, section 31. In the case of students identified with Developmental Disability, this means a maximum class size of 10 students.

Some variation in applying regulated class sizes do exist. For example, in the TDSB special education classes in congregated schools have a maximum class size of eight (8) students. And in the YRDSB, special education classes for students with complex needs may be less than six (6) based on the needs of students.

The types of special education classes offered by school boards also vary with larger districts offering more types of classes. For example, several districts offer congregated classes for students who have extremely complex needs such as students with DD who have complex health care needs, and/or students who have a dual diagnosis.

CONSIDERATIONS
It is considered best practice to include the voices of students when seeking to understand their experiences at school. However, this is a major challenge when students do not express themselves verbally. While a small number of students at Crystal Bay and Clifford Bowey have an established communication system, the majority of students do not. Since parents and caregivers know their children best, the review relied heavily on the information parents/caregivers provided.

It is important to keep in mind that the pandemic continued throughout the 2021-2022 school year and therefore may have influenced some of the perceptions shared by participants in the review. The pandemic disrupted routines at home, and at school, and it impacted school attendance. In particular, many medically fragile students were not able to return to school as soon as their peers.

The review focused almost exclusively on demographic data from the 2022-2023 school year; however, data from the 2021-2022 school year was also examined. Other than student attendance, which was impacted by the pandemic, demographic data patterns were consistent over the two school years.

With regard to the academic literature review, there are relatively few studies of students with severe developmental disabilities and most of the literature pertaining to their education is from the United States. In addition, the majority of studies presume some type of integration/inclusion. This means that when looking at fully self-contained classes, there are very few comparators.

Unlike other populations of students, there is presently no way to directly compare student outcomes because each student's progress/achievement is evaluated and reported relative to the alternative learning expectations documented in their IEP. Teachers record students' progress/achievement on alternative reports using anecdotal comments rather than the Ministry of Education Provincial Report Cards. And unlike other elementary and intermediate students, students at Bowey and Bay do not receive letter grades or percentage marks. Also, students who attend Clifford Bowey and Crystal Bay do not participate in standardized testing such as provincial assessments, nor do they typically appear in District graduation data. This is because they are working solely on non-credit courses leading to a Certificate of Accomplishment.

DISCUSSION/MAIN FINDINGS

Students at Crystal Bay and Clifford Bowey are some of the most vulnerable special education students in the District and they have specific requirements in areas such as educational programming and instructional practices, supports and services, and facilities.

Overall, parents and caregivers indicated high levels of satisfaction with the quality of education their children receive at Crystal Bay and Clifford Bowey and they are in agreement with the learning goals in their children's IEPs. In terms of the IEP development process, parents/caregivers stressed the importance of consultation with them early in the school year and the role of ongoing communication; thereby ensuring that educational programming is responsive to their child's developmental level, strengths, and needs.

Common areas of strengths and needs were able to be identified using information collected from students' IEPs. Specifically, the majority of students have strengths in the areas of musical and rhythmic abilities, a positive attitude, and tactile learning. Whereas, the number one need documented on the majority of students' IEPs was the development of communication skills, with personal care skills and self-regulation identified as number two and number three. Comments from parents and caregivers support these findings with a number of them expressing their appreciation for the ways in which educators use their children's strengths and interests to engage them in learning. Taken together, this suggests that educators know their students well and are effective in using a strength-based approach to instruction.

Feedback from parents/caregivers, educators, and administrators raise questions about what is essential learning for students with severe DD. Even though each student's educational program is individualized and recorded in their IEP, there are evidence-based recommendations for what to teach students with severe developmental disabilities. In addition to communication skills and daily living skills, the literature describes that best practice is to teach literacy and numeracy skills - something both schools presently do. Community outings comprise another element of students' current experiences at Crystal Bay and Clifford Bowey. Community-based field trips and a swim program are highly valued by parents and caregivers, and they perceive them to be essential educational program elements that reinforce the learning of safety, communication and social skills in the broader community. The reality is there is currently no direction from the Ministry in terms of what to include, or not include, in alternative programming for students with severe DD nor is there clear guidance in this area from District staff.

When asked about the achievement of their child's IEP annual learning goals, just over half of parents/caregivers provided a rating of usually or always. However, almost one third of parents/caregivers indicated that their child meets their IEP goals half the time, and approximately one in ten reported that their child seldom, or never, meets their annual IEP goals.

These findings suggest that more work is needed to understand the barriers that impact the attainment of IEP goals by students with severe DD and how to improve students' learning outcomes. Based on comments from parents, caregivers, staff and administrators, there may be many reasons for these ratings. For example, the amount of time students spend on learning may be influenced by one or more of the following factors: the complexity of student needs in the classroom, personal care support (e.g., assistance with toileting), staff attention to dysregulated students, and staffing challenges such as staff turnover and staff shortages. Furthermore, it underscores the importance of better understanding the learning conditions that foster success for students with severe DD and defining what success looks like for these students upon leaving school.

Another possible factor related to student achievement and outcomes may be staff capacity and training. Based on research, differentiated instruction is considered best practice for teaching all students - especially those with special needs. And although the majority of educators rated their confidence to differentiate instruction as high, they also expressed a lower level of confidence in their ability to provide instruction to students with the most complex needs. This has implications for the type of specialized training needed by educators who work with non-verbal students with severe DD.

Furthermore, although Regulation 298, section 19, of the Education Act establishes Special Education Part 1 as the minimum qualification to teach in a special education program, the 2019-2022 collective agreement between the OCDSB and elementary teachers lists Special Education Part 2 as a requirement to teach in all specialized programs except the DDP. The minimum qualifications for teachers is therefore lower for students with developmental disabilities than for students in other special education programs raising questions about systemic ableism.

The importance of consultation, collaboration, and training provided by specialist teachers and LSS professional services staff was commented on by educators and administrators as well as parents/caregivers. In particular, parents and caregivers stressed the crucial role of speech language services from SLPs and CDAs, and they would like to see these services enhanced.

Studies have also shown that the use of ABA instructional practices is an extremely effective way to teach students with severe developmental disabilities and those who have autism. Moreover, the use of ABA for instructing students with autism is mandated by the Ministry of Education. One of the most challenging aspects of implementing an ABA approach is the collection and use of data to assess and evaluate students and adjust goals, as required. Therefore, it is important that educators continue to be trained and supported in the use of these practices by LSS professionals such as BCBAs.

Many educators who participated in the survey reported benefiting from opportunities to collaborate with special education colleagues and professional staff, and this perspective was also shared by administrators. Teachers are eager to access and implement new technology to support student learning and they welcome more

professional development. A number of teachers also expressed a need for better access to resources and materials to support educational programming, however, further exploration would be required to understand the specific nature of these concerns.

In general, parents/caregivers and staff perceive the schools and facilities at Crystal Bay and Clifford Bowey to be accessible and safe. Outdoors, each school has a fenced yard and specialized playground equipment that features accessible swings and sensory activities. Indoors, both schools incorporate several elements that are necessary to implement the educational programs of students. Among these elements are rooms that allow students to learn and practice daily living skills which are equipped with kitchen, eating, and laundry areas that imitate home environments. In terms of well-being, Snoezelen rooms contribute to the well-being of students by offering a unique sensory environment that promotes self-regulation. The implication being that careful consideration would need to be given should the District decide to expand and/or relocate specialized program classes for this population of students.

However, a common concern raised by all respondents was classroom space. On average, classrooms at both schools are smaller than those in community schools and several factors create pressures on classroom space. These pressures include various types of specialized equipment students require daily to access learning and/or address their sensory needs, space to accommodate students who use wheelchairs, and space to store learning materials. Because of space limitations in most classrooms, and in the schools themselves, it is not uncommon for larger items, such as standing frames and walkers, to be stored in a hallway.

Adding to this pressure is how classes are staffed. Given the level of support students need to address their learning, personal care, and safety needs, each class usually consists of four (4) adults in the room - one teacher and three (3) EAs. Crowded and busy environments are associated with increased dysregulation in students due to sensory overload which was a concern raised by school administrators.

The issue of class size was raised by a number of parents and caregivers. These comments reflect the belief that the maximum class size for students in specialized program classes at Bay and Bowey should be six (6) and not eight (8). This position is informed by the experiences of these parents and caregivers with their own children and their awareness of the increasing number of students with complex needs at both schools. A few parents/caregivers expressed frustration with their efforts to advocate for change with District staff and shared concerns that they have not been heard.

One step in fostering mutual understanding is for the District to better know who the students are who attend Crystal Bay and Clifford Bowey, and who their families are. For this reason, there is an ongoing need to collect and analyze voluntary identity-based data, demographic data, and perceptual data from the parents/caregivers of these students. Other important reasons include the establishment of a baseline to monitor and assess changes, the identification of systemic barriers in order to remove them, and to promote understanding of multiple identities and intersectionality.

Based on survey responses from parents/caregivers, the families of students at the two schools are ethnically and linguistically diverse which highlights the intersectionality of students' identities. This speaks to the importance of culturally relevant pedagogy and the ongoing work staff and administrators at Crystal Bay and Clifford Bowey have undertaken in recent years.

Parents and caregivers of children who attend Crystal Bay and Clifford Bowey want to see their children and themselves reflected in the District's work. For example, during one of the focus group sessions, parents and caregivers shared their experiences of being asked to participate in the spring 2023 OCDSB Parent/Caregiver School Climate Survey. They commented that a number of questions used in the survey do not reflect the lived experiences of students and families at Crystal Bay and Clifford Bowey; therefore, the process felt exclusionary. Another example is the OCDSB Roadmap which makes no mention of specific goals related to inclusionary practices for students with disabilities and students with special education needs.

In focus groups, parents and caregivers acknowledged the potential benefits of inclusion and expressed how much they want their children to be part of the broader community. Some even said they might be more open to inclusive learning environments if they felt confident in the safety measures in place and the expertise of staff and administrators in community schools. One way to address these concerns is to expand equity initiatives and training to better recognize and include students with severe disabilities and their families.

THE WAY FORWARD

System Level

1. Maintain the two congregated schools for students with severe DD. If feasible, any additional special education classes for students with severe developmental disabilities should be located in community schools and/or in close proximity to community schools (i.e., within walking distance).

2. Improve opportunities for inclusion by exploring other models. For example, make first and second year kindergarten placements at Crystal Bay and Clifford Bowey an exception and serve Year 1 and Year 2 kindergarten students in community schools.

3. Create classes in community schools for students who demonstrate readiness (e.g., have a communication system and the ability to self-regulate). For example, a 'Transitions' class for students over the age of 18 years of age.

4. Consider moving towards a 1:6 teacher to student ratio for those students whose needs are the most complex (e.g., students with DD who have complex health care needs and/or students with high behaviourial needs).

Integration with Other Work/Initiatives/Departments

5. Special Education Programs and Services (P.096.SES) makes no mention of inclusive design in its policy statement and guiding principles. The OCDSB is encouraged to develop a culture of disability inclusion by creating an organizational vision based on the OHRC's *Policy on accessible education for students with disabilities.* Apply a disability inclusion lens to the work of central departments, review inclusion practices in schools, restructure where needed, and encourage commitment to the changes.

6. Collect and analyze voluntary identity-based data and perceptual data from parents and caregivers of students who attend Crystal Bay and Clifford Bowey.

7. Reexamine the minimum qualifications of special education teachers who work in the Developmental Disabilities Program. The 2019-2022 collective agreement between the OCDSB and elementary teachers lists Special Education Part 2 as a requirement to teach in all specialized programs except the DDP.

8. Investigate student management system changes to allow the age appropriate grade level assignment of students above Grade 8.

School Level

9. Enhance support for the development of students' communication competency by increasing the number of Communicative Disorders Assistants (CDAs) at both schools.

10. Strive for more consistent implementation of ABA instructional approaches and systematic instruction (i.e., the use of data-based instruction).

11. Ensure the alternative program for students with severe developmental disabilities includes learning expectations in the areas of literacy and numeracy skills, communication skills, and daily living skills. Consider creating alternative program guidelines for students with severe DD.

Professional Learning

12. Provide system leaders and administrators with training on ableism and the benefits of inclusive learning environments.

13. Embed inclusive education practices into staff development opportunities, such as the training of teachers new to the OCDSB and the training of new administrators.

14. Consider differentiated professional learning opportunities for staff at Crystal Bay and Clifford Bowey and include the Learning Support Consultant, school psychologist, BCBAs, SLPs, OTs, and instructional coaches in collaboration with school staff and administrators.

DEFINITION OF TERMS

Adaptive equipment is specialized equipment specifically designed for individuals with disabilities. It is used to support daily living activities and includes medical equipment.

Alternative learning expectations are statements on an individual education plan describing learning expectations that are not found in Ontario curriculum documents. Alternative learning expectations form part of an alternative program (e.g., personal care, social skills, communication).

Assistive technology is a general term meaning any tool, device, or software that helps individuals perform tasks with more ease and/or independence whether they have a disability, or not (e.g., communication devices).

District refers to the Ottawa-Carleton District School Board.

Exceptional pupil is the term used in the Education Act to describe a student who is found to need a special education program as determined by a formal committee - the Identification Placement and Review Committee (IPRC). The IPRC considers whether a student is exceptional according to the categories and definitions provided by the ministry.

Exceptionality is the ministry term for a broad category designed to address a range of conditions that impact a student's learning. There are five categories of exceptionalities: behaviour, communication, intellectual, physical and multiple. And within some categories, there are subcategories such as DD and autism. Students may be identified with more than one exceptionality; for example, some students have a first exceptionality of DD and a second exceptionality of autism.

Inclusion is the participation of students with disabilities in general education classrooms in ways that foster their belonging and encourage social engagement. (Check HR policy and OHRC document)

Individual Education Plan (IEP) means a written plan describing the special education program and/or services required by a particular student based on a thorough assessment of the student's strengths and needs and shall be used as both a document and as an accountability tool. P.096.SES

Integration traditionally refers to the education of children with special needs in general education classrooms.

Placement is not defined in the Education Act. In the context of special education, "placement is a description of a generic setting (or settings) where the appropriate special education programs and services can be delivered to the student." (Special Education Law, Second Edition, Bowlby, Peters & Mackinnon, pg. 57)

Service delivery model refers to the framework within which students receive special education services.

Special education program as defined in the Education Act, is “an educational program that is based on and modified by the results of continuous assessment and evaluation and that includes a plan [IEP] containing specific objectives and an outline of educational services that meet the needs of the exceptional pupil”.

Special education services as defined in the Education Act, refers to “facilities and resources, including support personnel and equipment, necessary for developing and implementing a special education program”.

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