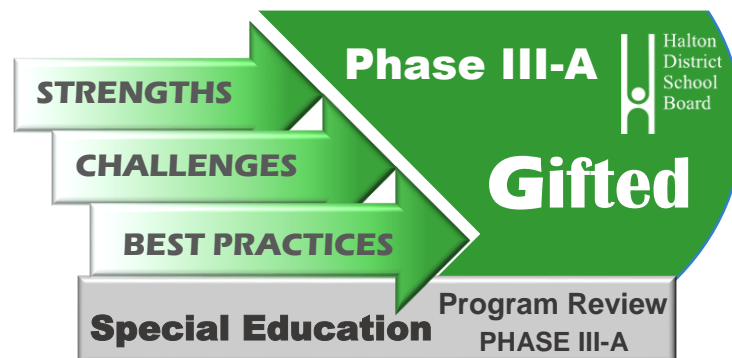




Halton District School Board
Special Education Programs and Services Review
Phase III-A

Strengths, Challenges, and Best Practices
with Gifted Assessment and Identification of Young Children

Exploring Practices in the Research Literature, Neighbouring School Boards
and the Halton District School Board



Elana Gray, M.Sc., C.E.

April 2019

Special Education Programs & Services Review Steering Committee

David Boag	Associate Director of Education
Elana Gray	Consultant
Jane Lewis	In-School Principal - Elementary
Sean Marks	Principal - Special Education
Denise Nacev	Chair - SEAC (to January 2019)
Joanna Oliver	Trustee
Tim Sadai	Instructional Program Leader - Secondary
Linda Stewart	Senior Manager - Professional Services
Nicholas Varricchio	In-School Principal - Secondary
Mark Zonneveld	Superintendent - Special Education

Acknowledgements

The completion of Phase III was facilitated through the support of many dedicated individuals. A special note of thanks is extended to the above noted members of the Special Education Programs and Services Review Steering Committee for their continued guidance and support throughout this phase of the review.

Gratitude is also extended to Special Education staff of our neighbouring school boards for sharing information regarding their gifted assessment practices and placement options available to their primary students.

Notes:

The term “parent” is used throughout this report and refers to **parents and guardians** of students.

This literature review presents issues and best practices relating to gifted assessment and identification of young children. It is part of the larger Special Education Programs and Services Review – Phase III.

Table of Contents

Introduction.....	1
Primary Gifted Program Background	2
Approach to the Review – Phase III-A	2
Review Methodology	4
Strengths, Challenges, and Best Practices with Gifted Assessment and Identification of Young Children - A Review of the Literature	6
Brief Overview of Early Childhood Development	6
A Closer Look at the Assessment and Identification of Young Children with Giftedness	6
Best Practices for Identifying Young Children for Giftedness	14
Addressing the Needs of Young Gifted Children	15
Enrolment Among Elementary Students with a Gifted Exceptionality in the HDSB	16
EQAO Achievement Results Among Elementary Students with a Gifted Exceptionality	19
Learning Attitudes Among Elementary Students with a Gifted Exceptionality	22
Report Card Achievement Results Among Elementary Students with a Gifted Exceptionality	23
Learning Skills and Work Habits Among Elementary Students with a Gifted Exceptionality	26
Parent Satisfaction and Perceptions of School and the Gifted Program	27
Environmental Scan Results – Primary Gifted Programs in Other School Boards	31
Highlights of Review Findings	33
Key Considerations for the Primary Gifted Identification, Programming and Support	35
References	37

List of Tables

Table 1: Special Education Review Framework for Phase III-A	3
Table 2: Size of Schools Yielded in the Environmental Scan	31
Table 3: Summary of Environmental Scan Results for Primary Gifted Models	32

List of Figures

Figure 1a: Elementary Student Enrolment Over 7 Years	16
Figure 1b: Elementary Student Enrolment Over 7 Years by Grade & Placement	16
Figure 1c: Primary Student Enrolment Over 7 Years by Grade & Placement	17
Figure 1d: Junior Student Enrolment Over 7 Years by Grade & Placement	17
Figure 1e: Intermediate Student Enrolment Over 7 Years by Grade & Placement	18
Figure 2: Elementary Student Enrolment Over 7 Years by Gender	18
Figure 3: Elementary Student Enrolment Over 7 Years by Area	18
Figure 4a: EQAO Results: Grade 3 & Grade 6 Reading Over 4 Years by Placement	19
Figure 4b: EQAO Results: Grade 3 & Grade 6 Writing Over 4 Years by Placement	20
Figure 4c: EQAO Results: Grade 3 & Grade 6 Mathematics Over 4 Years by Placement	21
Figure 5: EQAO Results: Grade 3 & Grade 6 Student Questionnaire Items – Average Over 4 Years by Placement; Reading Writing, & Mathematics	22
Figure 6a: Report Card Results – Language Strand Reading Over 5 Years by Division and Placement	23
Figure 6b: Report Card Results – Language Strand Writing Over 5 Years by Division and Placement	24
Figure 6c: Report Card Results – Mathematics Strand Number Sense & Numeration Over 5 Years by Division and Placement	25
Figure 7: Report Card Results: Learning Skills & Work Habits – Average Over 5 Years by Division and Placement	26
Figure 8a: Reported Satisfaction of School Elements Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools – 2016-2017	27
Figure 8b: Reported Satisfaction of Program Elements Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools – 2016-2017	28
Figure 9: Parents Reported Improvement in Their Child’s Academic and Social-Emotional Skills in Elementary and Middle Schools – 2016-2017	29
Figure 10: Reported Overall Satisfaction Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools – 2016-2017	30

Review of the Special Education Programs and Services – Phase III-A

Strengths, Challenges, and Best Practices with Gifted Assessment and Identification of Young Children

INTRODUCTION

The Special Education Programs and Services Review began during the 2016-2017 school year, with a phased implementation approach over three years. Each phase set out to address specific goals, and the findings were used to inform the direction and activities of the subsequent phase.

Phase 1: this initial phase examined student enrolment trends in each of the Special Education categories of exceptionality; student achievement trends; and student, parent, and staff perspectives regarding Special Education programs and services. Results from Phase 1 identified the need for the Halton District School Board (HDSB) to further examine elementary special education procedures, placements and programming for students with Autism, Learning Disabilities, and Giftedness. Specifically, this phase identified: (1) concerns among school staff regarding the services, supports and increased needs of students with these exceptionalities; (2) large achievement gaps between students not receiving special education support and students with Learning Disabilities and Autism; and (3) special education enrolment trends demonstrating that almost 60% of students with exceptionalities were in the elementary panel, with a sizable proportion representing these three exceptionalities (Love and Favaro, 2017).

Phase II: Based on the findings in Phase I, Phase II was structured to further explore the referral, identification and placement pathways available for elementary students with Autism, Learning Disabilities, and Giftedness. Focusing on the fidelity, consistency, efficiency, and effectiveness of procedures and practices used throughout the pathways, Phase II examined: (1) elementary enrolment trends; (2) procedural pathways within the HDSB and in neighbouring school boards; (3) alignment between HDSB's practices and Ministry guidelines; and (4) stakeholder perspectives regarding pathway procedures and practices. Findings from Phase II identified a variety of strengths and challenges with the referral, identification and placement pathways. Subsequent recommendations were generated from these findings, addressing areas relating to communication, assessment results, identification criteria and processes, student support, staff professional development, and the Individual Education Plan (Gray, 2018).

Phase III: Following completion of Phase II, Student Services took action to address various recommendations. Through discussions about the results and recommendations presented in Phase I and Phase II, the Special Education Programs and Services Review Steering Committee agreed that more information was required for some exceptionalities before decisions or action could take place. Specifically, the Steering Committee discussed the need to better understand evidence-based best practices among two exceptionalities – giftedness and learning disabilities. Phase III involved a review of the literature for these exceptionalities, with a focus on primary and/or elementary levels; and incorporated HDSB student-based data including enrolment, achievement, and parent perceptions of the Special Education program.

This report includes the first section of Phase III (Phase III-A), addressing areas of the primary Gifted program. A separate report addressing areas of assessment and identification of young children at risk for learning disabilities is available in a separate document (Phase III-B).

PRIMARY GIFTED PROGRAM BACKGROUND

In the Special Education Plan (HDSB, 2018), the HDSB shares their Statements of Belief that embrace effective practices for all students with exceptionalities. These beliefs reflect the Board's commitment to support early identification of needs, shared responsibilities, equitable access for all students, and sound pedagogy. For the primary years, the HDSB believes early identification and intervention is essential for student success, and provides a range of student placements, services, supports, and interventions that students with different abilities may require. In accordance with legislative requirements (Reg. 181/98), and in keeping with HDSB's beliefs and practices, placement in a regular classroom, with appropriate education services, is given first consideration for all students when it meets the needs of the student and is consistent with parental preferences (Standard 9, p. 1).

The Halton District School Board has offered the primary gifted program for the past 10 years. With two placement options available, students in Grades 1–4, who are identified as gifted, are supported in a Self-Contained classroom, or in a regular classroom with Resource Support. The board's identification procedure for primary students begins in Senior Kindergarten and involves a screening process using a nomination procedure; School Resource Team meeting(s); and an individual intellectual assessment completed by the student if there is sufficient evidence to indicate that he/she may meet the criteria for giftedness. If the criteria are met, formal identification and placement decisions are made through the Identification, Placement, and Review Committee (refer to Phase II for details regarding assessment and identification procedures; Gray, 2018). Currently, the HDSB has 153 primary gifted students (Grades 1–3) and 109 students in Grade 4, for a total of 262 students. Sixty percent of students (158) are enrolled in Self-Contained classrooms, and 40% (104) receive Resource Support in regular classrooms.

APPROACH TO THE REVIEW – PHASE III-A

The impetus for this first section of the Special Education Programs and Services Review-Phase III was largely motivated by the following recommendation provided in Phase II – to “*support primary students who demonstrate characteristics of Giftedness in their home schools*” (Gray, 2018, p. 41). The purpose of this section was to:

1. Explore current research literature regarding issues and best practices relating to giftedness and young children;
2. Examine the practices of other school boards to identify practical, innovative approaches or strategies that may be considered by the HDSB; and
3. Understand HDSB's primary gifted student population.

Table 1 provides the Review framework outlining the methodology and data sources used to complete the first section of Phase III.

Table 1: Special Education Review Framework for Phase III-A

Review Component	Review Goals	Data Sources
Literature Review	<p>Conduct a systematic review of evidence-based research and professional theories regarding gifted education and young children.</p> <p>Identify strengths, challenges, and current best practices relating to gifted assessment, identification, and placement of young children.</p>	<p>Educational journals</p> <p>Meta-analytic reviews</p> <p>Books</p> <p>Expert opinions</p> <p>Research monographs</p> <p>Position statements</p>
Student Enrolment	Develop a comprehensive picture of trends in enrolment among gifted elementary students.	HDSB Student Information System databases
Student Achievement	Develop a comprehensive picture of trends in student achievement, attitudes, and learning skills and work habits among gifted elementary students.	<p>EQAO achievement results</p> <p>EQAO questionnaire results</p> <p>Report card achievement results</p> <p>Report card learning skills and work habits results</p>
Parent Perceptions	Understand the perceptions of parents of gifted elementary students regarding their child's progress, school, and the Gifted program.	Parent survey results – from Phase I
Environmental Scan	<p>Identify other Ontario school boards that provide primary Self-Contained placements for gifted students</p> <p>Examine gifted assessment, identification and placement practices used in primary grades among these school boards.</p>	<p><u>School Boards:</u></p> <p>Ottawa-Carleton DSB</p> <p>Peel DSB</p> <p>Toronto DSB</p> <p>Online board resources, documents, and plans</p> <p>Key informant consultations with administrative staff responsible for Special Education programs</p>

Special Education Programs and Services Review Steering Committee

As with previous phases, Phase III employed a participatory approach to the review process. The Special Education Programs and Services Review Steering Committee continued supporting all stages of the Review. Ongoing guidance was provided throughout the project planning, data collection and compilation of key findings. Steering Committee members included senior staff, Student Services staff, a trustee, a Special Education Advisory Committee (SEAC) representative, school administrators, a board researcher, and a program evaluation consultant. Steering Committee members are listed on the inside cover of this report.

REVIEW METHODOLOGY

Literature Review

The literature review provides an overview of current research and professional theories involving issues relating to gifted assessment, identification, and placement of students in primary grades; as well as a brief summary of research pertaining to early intervention and programming for young gifted children. The review provides information obtained from educational journals, books, meta-analytic reviews, position statements, newsletters, interviews, and documented expert opinions. Although not an exhaustive examination, the review includes current issues presented in the literature as being critical considerations for young children with possible giftedness. Resources include local, national and international research findings and theories; and, with the exception of a few key sources, the review focused on literature from the past 10 years.

Student Enrolment

HDSB enrolment data over seven years were analysed and presented for elementary students in the Gifted program. Data are disaggregated and presented by program placement type, division, grade, gender, and location.

Student Achievement Results

EQAO Achievement: Four-year trends for EQAO Reading, Writing, and Mathematics achievement results were analyzed using percentages, for Levels 3 & 4, among gifted elementary students in Grade 3 and Grade 6.

Report Card Achievement: Five-year trends for final report card achievement results for Reading, Writing, and Number Sense and Numeration strands were analyzed using average percentages, for Levels 3 & 4, among elementary students in the Gifted program. Results for learning skills and work habits are also presented, using average percentages over five years, for students who achieved *Good* or *Excellent* on the final report card. Both sets of results are disaggregated by division and program placement type.

Student Learning Attitudes Results

EQAO questionnaire results were analyzed for the items inquiring about the frequency in which students *do their best when reading, writing, and doing mathematics activities in class*. Four-year average percentages are presented for elementary Gifted students in Grade 3 and Grade 6. Both sets of results are disaggregated by program placement type.

Skopus Data Warehouse, Trillium (Student Information System), and Board Interface Tools comprise of large system databases which house a variety of student information. The majority of student-related data were retrieved from these databases.

Parent Survey Results

Results from the parent/guardian survey administered during Phase I of this review are analyzed using percentages, for levels of satisfaction and ratings reflecting their child's improvement, among parents of students in the Gifted program. Survey items included parental satisfaction with their child's experiences in school and the Gifted program, and perceptions regarding their child's academic and

social-emotional progress. Results are disaggregated by program placement type for elementary and middle school parent respondents.

Environmental Scan

An environmental scan was conducted to obtain information from Ontario school boards that currently offer assessment, identification, and placement options for gifted students in primary grades. The search for such programs involved online reviews of school board special education practices, and communications with staff (via email, telephone, or in person). Inclusion criteria used to identify school boards of interest included: boards within the GTA and larger school boards beyond the GTA; use of board-wide and/or individual assessment practices with primary students for the purpose of gifted identification; established assessment criteria for the purpose of gifted identification; and provision of a Self-Contained gifted placements for primary students.

School Board Document Review: online information regarding assessment and identification practices and placement options for primary gifted students was reviewed through special education plans, parent guides, and support documents.

Key Informant Interviews: telephone interviews were conducted with administrative staff responsible for Special Education programs in each applicable school board to confirm the online information collected, and to fill gaps in the data. Interviews were conducted in a systematic manner, using a checklist for online searches, and an interview protocol during key informant interviews.

The Special Education Programs and Services Review–Phase III-A was conducted by an external evaluation consultant. Independent reviews provide organizations with an objective approach, analysis and interpretation of program and service strengths, challenges and opportunities for improvement. Throughout the review process, the consultant approached each component with a clear awareness of stakeholder investment while maintaining a neutral and open-minded perspective. As such, the reported findings are based on the evidence acquired throughout this review, and are presented with the intent to guide future decisions regarding the provision of special education programs and services in the HDSB.



STRENGTHS, CHALLENGES & BEST PRACTICES WITH GIFTED ASSESSMENT AND IDENTIFICATION OF YOUNG CHILDREN

A REVIEW OF THE LITERATURE

The scope of the literature review conducted in Phase III-A was established based on the results of an initial literature scan to determine critical issues related to giftedness among children in primary grades. For young children, particularly between the ages of 4-8 years, a strong emphasis is placed on issues related to assessment and identification practices. As such, the following review focuses on the key strengths and challenges with assessment and identification. In addition, a brief summary of the literature relating to early identification and programming for young gifted students is provided.

Giftedness

An unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated.

Ontario Ministry of Education

Brief Overview of Early Childhood Development

Professionals in early childhood education have established that early child development and learning proceed continuously and rapidly, at varying rates between children, and at a differing pace physically, emotionally, cognitively and socially (Jiban, 2013; National Association for the Education of Young Children [NAEYC], 2009; National Research Council, 2008). The notion of this developmental variability in young children has been researched for several years. The Learning Disabilities Association of Ontario (LDAO) (n.d.) states that children entering school arrive with “highly diverse environmental, social and linguistic experiences, with various degrees of enrichment or deprivation, with a history of individual learning opportunities, and with a significant range of developmental maturity” (p. 9). Guddemi and Case (2004) agree that early childhood development is “highly influenced by the environment (e.g., family, culture, experiential background), and that children experience periods of rapid growth and frequent rest” (p. 3). These variances in development, combined with environmental factors, influence a child’s functioning in all domains.

A Closer Look at Assessment and Identification of Young Children with Giftedness

Child Development – Implications for Assessing Young Children for Giftedness

Given the variability of development in young children, a range of perspectives exist among early childhood experts regarding the value and utility of assessment results for the identification of young children. Jiban (2013) cautions that assessments offering “one-time snapshots are likely to be less meaningful for younger students, whose pace of growth exceeds that of older children,” however, “professional judgement is a key factor in determining how ready each child is for a certain approach to assessment” (p. 3). When assessing cognitive functioning, Ellingsen (2016) notes that “scores on standardized tests and performance across different test components can provide valuable information about aptitude, relative strengths and weaknesses, and behavior, but must always be considered in light of functioning in other developmental domains (e.g., language, social-emotional, motor) in order to develop diagnostic impressions” (p.46). In addition, Ellingsen (2016) suggests that young children’s “performance on standardized measures of cognitive abilities should be regarded as a picture of current

functioning and used to develop current early intervention plans, and not long-term prognosis about intelligence” (p. 46). Karadag, Karabey, & Pfeiffer (2016) also note that “the rapid growth and development of children in the first six years of life is considered to be a basic obstructing factor in the identification process” (p. 2).

Optimal Age for Assessing Giftedness

In general, experts in the area of gifted assessment and identification believe that the appropriate age to assess for giftedness depends on the individual needs of the student. However, common concerns documented in the research literature, and noted by child development experts, relate to the accuracy of assessment results among young children. Although opinions regarding the optimal age for gifted assessment seem to vary, many researchers and experts caution the reliability and validity of assessment results of young children. Following are some examples of opinions regarding the optimal age for gifted assessment:

- ▶ Lisa Van Gemert, educator, author, and Youth and Education Ambassador for Mensa, states that “the sweet spot for IQ testing is somewhere between 7 and 12 years old. In the sweet spot, you get an accurate score that allows you to make good educational decisions for the child” (Van Gemert, 2015).
- ▶ Dona Matthews, author and expert in gifted education, states that tests are not reliable until the child is at least 7 years old (as cited in Hemphill, 2010).
- ▶ Ellingsen (2016) cites the following - “the younger the child, the more difficult it is to obtain reliable and valid assessment data” and it is particularly difficult to accurately assess children’s cognitive abilities before 6 years of age (Shepard, Kagan, & Wurtz, 1998, p. 5).
- ▶ The NSW Association for Gifted and Talented Children (NSWAGTC) (2007) notes that clinical experience indicates that assessing children between the age of 6 and 9 years will be most reliable and most predictive.
- ▶ Linda Silverman, a licensed psychologist and director of the Institute for the Study of Advanced Development and the Gifted Development Center, believes that the optimal age range for assessing gifted children is between 4 – 9 years of age (Silverman, 2018; Silverman, n.d.).
- ▶ the National Association for Gifted Children (n.d.), report that researchers tend to concur that it is difficult to accurately determine the IQ of children under the age of 6 years.

In addition, the NSWAGTC (2007) and Silverman (n.d.) caution that assessment results start to decline for children older than 9 years due to: ceiling effects (reaching the upper limits on the test), perfectionism and unwillingness to guess (particularly among girls), and the emphasis on crystallized knowledge (learned knowledge) rather than fluid abilities.

Modern Conceptualization of Giftedness

Various theories and conceptions of giftedness exist among large bodies of research. Sternberg and Kaufman (2018) describe four generations or ‘waves’ of research, with each wave building on earlier theories to evolve into the modern conceptions of giftedness we see today. The four waves include:

- 1) Domain-general models – with a focus on general intelligence and the introduction of intelligence tests to measure giftedness;

- 2) Domain-specific models – identifying various types of abilities and skills in which individuals can be gifted, and the use of intelligence tests and high achievement in a specific domain;
- 3) Systems model – building on the previous models by adding psychological variables reflecting giftedness, and supporting alternative assessments that reach beyond intelligence; and
- 4) Developmental models – focusing on the dynamic nature of giftedness and its interactions with external factors (i.e., environment), emphasizing different types of assessments at different ages.

However, despite progress made over the years, internationally-based research shows that the identification of gifted students still largely depends on high IQ scores or high academic achievement (Gubbels, 2016; McClain & Pfeiffer, 2012). Sternberg and Kaufman (2018) contend that “modern conceptions of giftedness receive little attention,” and that domain-general theories continue to “have the most enduring impact on modern-day education [as] global IQ scores are still the dominant criterion used for acceptance into gifted programs” (p. 37).

As research moves forward and builds on the modern developmental theory, it continues to confirm the dynamic state of giftedness. Considerable evidence indicates that intelligence, and by extension giftedness, is dynamic in nature; and that IQ scores can change (in some instances dramatically) during a lifespan (Lohman & Korb, 2006; NAGC, n.d.; Pfeiffer, 2011; Pfeiffer, 2013). Gubbels (2016) refers to the multidimensional structure of giftedness, and stresses the importance of the roles that cognitive, socio-emotional, and environmental characteristics play in the development of multiple types of abilities. As stated during a reflective conversation, gifted expert and author, Steven Pfeiffer supports this dynamic notion of giftedness. He believes “a young person can be gifted at one time in his life but not necessarily at another” (Pfeiffer & Shaughnessy, 2013, p. 28).

Issues Related to Gifted Assessment in Young Children

Stability of Early Assessment Results

The common belief that giftedness is a permanent or stable aspect throughout an individual’s life is placed into question by research findings providing evidence that IQ scores can change over time (Wu, 2010). Increasingly, researchers are finding that cognitive ability consists of skills that are developing, changing, growing, and adapting over a lifetime. To better understand the impact on test results as they pertain to stability over time, researchers and experts in the field of giftedness describe the key challenges with early assessment for giftedness:

- ▶ Lohman and Korb (2006) note that “the majority of children who score in the top few percentiles on ability and achievement tests in one grade do not retain their status for more than a year or two” (p. 1).
- ▶ McCauley (n.d.) states “the older the child is when initial testing takes place, the stronger the relationship is with later IQ.” She also notes that “results of previous studies suggest that IQ becomes relatively stable by the age of 8, so if a child is tested at this age or later, there is likely to be a strong correlation with scores on later tests.”
- ▶ Guddemi and Case (2004) state that standardized assessments are less accurate, valid, and reliable for young children, when compared to older children, and they should not be used to make high stakes decisions until grade 4.

- ▶ Lakin (2015) states that “students who need enriched instruction in early grades may not show exceptional performance or ability in later grades. Other students will suddenly start to show exceptional ability in later grades; this is especially common for former English learners and students whose family cannot provide an enriched pre-K education... The earlier [IQ] measurement was not necessarily wrong; it represents a characteristic that is developing at different rates for different students” (p. 4)
- ▶ Worrell (2009) reports that “IQ scores account for about 25% in achievement, there is a reciprocal relationship between years of schooling and IQ, and factors other than test scores make substantial contributions to outstanding accomplishments” (p. 1).
- ▶ As cited in Pfeiffer (2011, p. 5), Daniel Keating concluded that “giftedness is at best a potentially useful descriptor for categorizing a group of students who display exceptional ability or uncommon promise in the classroom at one point in time.”
- ▶ Lakin (2015) states that when making programming decisions for students, “using ability test scores that are more than a year old is probably not a good idea... [because] cognitive ability is not fixed, and develops at different rates for different students... [and] students vary in the trajectory of their growth in cognitive abilities” (p. 4).

The Fullerton Longitudinal Study (Gottfried, Gottfried, & Guerin, 2009) involved various administrations of standardized measures of intelligence with children from age 1 – 17 years. The resulting inter-correlations among the 13 standardized test waves revealed that:

- (a) the adjacent testing periods typically reveal the highest correlations;
- (b) correlations decline as the interval between testing waves increase; and
- (c) with advancement in age, the magnitude of the correlations increases with regard to the final testing wave (p. 48).

The correlations between cognitive measures at the age of 17 years and preschool measures varied from low (at age 1 year) to moderate (at 3 years); and high correlations were found between measures at age 8 and 17 years. Another longitudinal study conducted by Lohman and Korb (2006) involved the examination of achievement results among gifted students between grades 3 and 8. Results demonstrated that 60% of students who had composite scores in the top 3% in grade 3, also scored in the top 3% in Grade 4; and this percentage gradually decreased between grades 5 and 8 (to 50% in Grade 8). Testing experience indicates that these unstable results may be due to factors such as test errors, regression toward the mean, changes in children’s functional levels as a result of individual learning experiences, and/or ceiling effects where a child’s abilities exceed the highest scores set for the test (Lohman and Korb, 2006; Silverman, n.d.; Wu, 2009).

Predictive Validity of Early Assessment Results

As noted earlier, Sternberg’s and Kaufman’s (2018) first ‘wave’ of gifted identification (i.e., IQ focused) still remains the dominant model in practice. While recent research supports the more progressive developmental models of giftedness, its uptake in educational settings has been slow. Meanwhile, the first wave model presents important limitations relating to the under-representation of minority and socio-economic groups, and the inability to accurately predict the future achievement of individuals identified as gifted in the younger years (Kaya, Juntune, & Stough, 2015; Parekh, Brown, & Robson, 2018). The disconnect between early identification of giftedness and future high performance outcomes calls the predictive validity of this domain-general model into question.

Some research findings and professional perspectives regarding the predictive validity of early assessment results include:

- ▶ Pfeiffer (2011) maintains that psychological assessment tools can only predict the *likelihood* of outstanding accomplishment later in life, and that many students identified as intellectually gifted when young do not demonstrate special talent as adults; and other students who are not identified as gifted when young achieve extraordinary accomplishments as adults. On the other hand, Pfeiffer (2013) also states that “a high IQ in the early years is a very good predictor of later accomplishments in the classroom, but there are other predictors of later accomplishments” (p. 91).
- ▶ Nisbett (2009) indicated that “IQ accounts for a substantial but not nearly a majority of the reliable variance in a student’s academic performance or real-world success” (as cited in Pfeiffer, 2011, p. 4).
- ▶ In a study conducted by Parekh, Brown, & Robson (2018), results demonstrated that there was almost no relationship between early identification (students who were identified as gifted between grades 3 and 6) and very high achievement in secondary school. Rather, most of the very high achieving secondary students did not have a gifted identification.

Research involving older students including gifted youth, have also demonstrated varied levels of support for the correlations between IQ focused assessment results and future educational achievement, occupational level, and job performance outcomes. Nisbett, Aronson, Blair, Dickens, Flynn, Halpern, Turkheimer (2012) state that IQ has shown to be a substantive predictor of future outcomes; and that the measurement of intelligence, via IQ tests, “has utilitarian value because it is a reasonably good predictor of grades at school, performance at work, and many other aspects of success in life” (p. 131). On the other hand, a fulsome review of research involving intellectually precocious youth lead Lubinski (2016) to conclude that gifted students have relative strengths and weaknesses, and differ in their individual passions, pursuits, and ambitions for achievement. As a result, Lubinski stresses the importance of “taking a multidimensional view of their individuality [and], when done, it predicts well long-term educational, occupational, and creative outcomes” (p. 900). Similarly, further research suggests that a variety of additional individual factors, beyond intelligence alone, may be in play. Thus researchers caution the interpretation of IQ–future educational and occupational achievement correlations (Richardson & Norgate, 2016; Makel, Kell, Lubinski, Putallazı, & Benbow, 2015).

Implications for Assessing Giftedness in Young Children

Given these findings, researchers and giftedness professionals provide the following conclusions and perspectives regarding the implications for assessment and subsequent identification practices:

- ▶ McClain & Pfeiffer (2012) note that most authorities in the gifted field agree that “assessment should be ongoing, given that talent development is an ongoing process and that not every child identified as gifted at an early age follows the same developmental trajectory” (p. 78).
- ▶ Lakin (2015) suggests that students identified as gifted during the early primary grades (K-2) should be retested two to three years following their initial evaluation for continued participation in a gifted program because “young students grow and change at an accelerated rate relative to older students” (p. 5). In addition, Lakin (2015) notes that based on the results of Lohman’s and Korb’s, (2006) research, “using scores that are more than a year old for identification or classification purposes is likely problematic. It’s a good idea to retest each time new placement decisions need to be made” (p.5).

- ▶ Pfeiffer recommends that school districts search annually for students with high ability and potential; and that students in gifted programs be re-evaluated at least every two years to determine if they are still benefitting from the program (Pfeiffer & Shaughnessy, 2013).
- ▶ 10 out of 14 authors of leading tests used to assess giftedness agreed that gifted students should be re-evaluated, and the reported frequency of re-testing ranges from every 1–4 years. Opinions expressed by some of these authors include: “Giftedness is a developmental phenomenon, and [re-evaluation] should be more frequent when the child is young than during adolescence because development is so rapid in young children and pre-adolescence,” and “Specific abilities can shift [over time].” One author who disagreed with the need to re-test noted “If identification is accurate in the first place, there is no reason for a re-evaluation. You don’t become ungifted unless an arbitrary cut-off is used” (Valler, Burko, Pfeiffer, & Branagan, 2016, p. 7).
- ▶ Gottfried, et al. (2009) also support ongoing assessments for students who are not identified as gifted during initial testing. However, they note that “ongoing assessment for children already identified as gifted and who continue to succeed is unnecessary and valueless” (p. 51). In addition, they do not advocate removing children from programs based on subsequent assessment results (due to the testing issue of regression to the mean). Rather they propose “if [children] are doing well educationally in their programs, they should remain there” (p. 51).

The Role of the Nomination Process

The nomination stage is often the first step in the gifted identification process that involves the completion of referrals, checklists, behavioural rating scales, observations, interviews, and/or portfolios completed by teachers, parents, and students. The information obtained during this stage is more qualitative in nature and can provide important contexts for the interpretation of quantitative assessment results (Silverman, 2018). The National Association for Gifted Children (n.d.) notes that nominations help “cast a wide net for identifying as many students as possible who might qualify for gifted services” (p. 1); while other researchers indicate that the nomination process is used to limit the number of students who proceed to additional testing for the purpose of gifted program placement (McBee, Peters, & Miller, 2016). In order to eliminate bias and ensure accurate identification of gifted students, current research has highlighted the importance of using psychometrically sound nomination instruments, ensuring teachers are trained to recognize the characteristics of giftedness, and selecting appropriate nomination cut-offs (McBee et al., 2016; NAGC, n.d.).

Teacher rating scales are widely used as initial measures for the identification of giftedness and are considered strong assessment tools in identifying the psychosocial characteristics of high functioning students (Worrell & Erwin, 2011). Some noted strengths of these scales are that they can be inexpensive to use, they offer an efficient means of gathering information on all areas of giftedness, and they can assess a wide range of characteristics that are difficult to assess with other assessments (Benson & Kranzler, 2017). Şahin (2016) reviewed research outcomes that demonstrated a relationship between teacher rating scales and standardized instruments, thereby concluding that identification of gifted students can be successful when rating scales are used. Conversely, documented limitations of such scales include the minimal training classroom teachers receive about the nature of giftedness, teacher beliefs and biases leading to underrepresentation of low-income and culturally and linguistically diverse students, and the limited evidence of adequate psychometric properties of scales, thus limiting their diagnostic utility (Benson & Kranzler, 2017; NAGC, 2013; Pfeiffer & Petscher, 2008; Şahin, 2016; Worrell, Subotnik, Olszewski-Kubilus, & Dixson, 2019). Research conducted by McBee, Peters, &

Miller (2016) further concluded that identification systems that depend on a nomination process can result in a false negative rate of more than 60%.

The Role of the Screening Process

Universal Screening of Young Children

Worrell et al. (2019), state that, when completed in the early school years, universal screening is “a promising approach to circumventing the pitfalls of referral and nomination systems” (p. 562). Worrell and Dixon (2018) propose that the strengths of universal screening are that they are not biased against subgroups, can identify students from all backgrounds, and will likely result in the gifted identification of more low-income and minority students. Lakin (2015) also notes that universal screening works to “maximize fairness and diversity in identification... [by] casting a broad net” (p. 15). A key study conducted by Card and Giuliano (2016) examined the impact of universal screening among ethnically diverse second grade students. Using a nonverbal ability test together with teacher/parent referral methods, results indicated that substantially more students were identified as gifted, of which a large proportion were minority students, those of low socio-economic status, females, and English language learners. In practice, a teacher and/or parent referral process is often used as an alternative to universal screening for gifted services. However, some research suggests that a referral only process introduces bias into the identification process and may lead to the underrepresentation of poor and minority students in gifted programs (Lakin, 2015; Lakin & Driver, 2016).

Group-Administered Aptitude Tests for Young Children

Measuring a child’s cognitive functioning is commonly executed in school settings using group-administered, standardized instruments. These instruments are typically used in the gifted screening process and are considered more practical and cost-effective when compared to individually administered cognitive assessments. Cao, Jung, & Lee (2017) note that group-administered ability tests can provide an effective screening process in determining whether further individualized assessment is necessary. However, with young children, researchers have identified various limitations in administering group tests that measure cognitive abilities. Yang (n.d.) notes various factors that may influence the performance of young children (i.e., age 4 – 8 years) during these group-administered, standardized tests. First, these tests require a large amount of time and energy from young children who may not have the attention span or patience to complete them fully. Second, when children are tested in a group setting, environmental factors such as noise and distractions, may impact their focus. Third, many assessments are heavily loaded in verbal content and thus require verbal proficiency to understand the directions and complete the test. Young children who cannot read, have poor English proficiency, limited verbal skills, and/or short attention spans may not perform well. These issues prove it difficult to gather valid and reliable data regarding the cognitive abilities and aptitude of young children.

Group-administered assessments, such as the Canadian Cognitive Abilities Test–7th Edition (Nelson, 2017) set out to measure the development of reasoning abilities across verbal, nonverbal and quantitative domains among students from Kindergarten – Grade 12. Strengths of the CCAT 7 include its measure of quantitative reasoning, high ceilings among all test levels, and it is English Language Learner friendly, thereby providing greater equity and fairness to this group of children (Lohman, 2014; Wasserman, 2013). Furthermore, the CCAT 7 was developed for a wide age-range, incorporated extensive norming procedures, is based on a comprehensive theoretical framework, and demonstrates adequate psychometric properties (Lohman, 2014; Nelson, n.d.). Overall, the CCAT 7 is regarded as a

measure that can help build and improve student profiles relating to their cognitive strengths and weaknesses that are considered critical for decisions regarding identification and placement into gifted programs. However, Nelson (n.d.) cautions that due to differing rates of development, opportunities to learn, and experiences among young children, results obtained on the CCAT 7 tend to be less accurate and less stable for younger students. It is suggested that for students tested in early grades, retesting may be warranted in junior or middle school grades; and that the frequency of retesting students should increase when higher (more extreme) cut-off scores are used.

Individually Administered Cognitive Ability Tests for Young Children

Clinicians, and educational professionals continue to embrace measures of cognitive ability or intelligence when assessing for giftedness (McClain & Pfeiffer, 2012; Pfeiffer, 2013). Key strengths of these measures are that they offer an objective and systematic assessment approach, provide a thorough understanding of a child's strengths and challenges, and assess a range of verbal and nonverbal reasoning skills (NAGC, n.d.; Silverman, 2018; Worrell & Erwin, 2011). With these advantages in mind, the field of gifted education continues to rely heavily on measures of intelligence at the grade-school level, and IQ or ability scores continue to be the most frequently required eligibility criteria for acceptance into gifted programs (McClain & Pfeiffer, 2012; Sternberg & Kaufman, 2018; Wasserman, 2013). However, with the conceptions of giftedness evolving over the past several years, researchers have made great strides in demonstrating domain-specific notions of giftedness, providing evidence that giftedness extends beyond intelligence, and that it is a developmental process (Gubbels, 2016; NAGC, 2012; Pfeiffer, 2012). Consequently, there is building consensus that formal measures of intelligence or cognitive abilities are one type of tool in a multifaceted assessment process for gifted identification. These advancements are reflected in the best practices specified throughout the literature that support multidimensional identification procedures.

Nonverbal Ability Tests for Young Children

Some experts have advocated for the use of nonverbal tests, particularly for younger students, students with limited verbal skills, and those with diverse ethnic, cultural, and socio-economic backgrounds. (O'Connor, Fleischmann, Kenner, McCobin, & McGory, 2017). Nonverbal tests of intelligence claim to minimize the need to use language during the testing process and thus may lead to a fairer, more equitable assessment process for these students (Cao et al., 2017; Yang., n.d.). However, other research challenges this claim, indicating that performance gaps among diverse groups of children are not always reduced through the use of nonverbal measures (Carmen & Taylor, 2009; Carmen, Walther, & Bartsch, 2018; Worrell & Erwin, 2011). Furthermore, Moon (2010) notes that many minority students with strong academic skills perform poorly on these tests. Similarly, Lohman and Lakin (2011) found that the administration of nonverbal intelligence tests did not identify more English Language Learners and minority students, and questioned whether these tests measure constructs similar to those measured in tests that assess verbal and quantitative abilities. Regardless of this debate, there seems to be strong consensus among researchers that nonverbal measures should be one component in the multi-faceted assessment process of gifted identification (Cao et al., 2017; Carmen & Taylor, 2009; Moon, 2010; Yang., n.d.).

Best Practices for Identifying Young Children for Giftedness

Many researchers, practitioners, and educational professionals concur that the broadening conceptualization of giftedness and a multidimensional approach to gifted assessment connects well with the more modern understanding of individual differences and early childhood development (Jiban, 2013; Thompson & Morris, 2018). In turn, the recommended process for gifted identification and subsequent qualification for gifted programming, particularly for younger children, reflects these more recent developments. Johnsen (2012) sums up the procedural “requirements” as needing to be “comprehensive, cohesive and ongoing; using multiple assessments from a variety of sources that are qualitative and quantitative, dynamic, equitable, and technically adequate” (p. 12).

Together, researchers support the following professional best practices for assessment and identification of young children for gifted programming placement:

- ▶ Assessment tools are aligned with the program’s definition of giftedness.
- ▶ Multidimensional assessment approach that considers diverse learning styles, and examines various areas of ability.
- ▶ Multiple sources of information including quantitative assessments (such as standardized measures of intelligence, measures of verbal and nonverbal cognitive abilities) and qualitative assessments and products (portfolios, rating scales, teacher and parent checklists, interviews, observations, portfolios, student background information) are gathered from different sources (teacher, parent, student, peer) in different contexts (school, home, extra-curricular activities).
- ▶ Assessment approach can be conducted in three phases: 1) the nomination phase includes qualitative, subjective procedures; 2) screening and identification phase includes quantitative, objective measures; and 3) the selection or placement phase involves a committee of professionals who determine the type of services the students need, based on the data gathered.
- ▶ Assessments and procedures minimizes bias, are fair in identifying students from all groups, and provide equal access to all students.
- ▶ Assessment conditions mimic a natural setting for the student to demonstrate his or her knowledge, skills, and abilities.
- ▶ Instruments should have adequate psychometric properties.
- ▶ Assessments used should have local norms.
- ▶ Personnel involved in the assessment process are appropriately trained in the administration, interpretation, and use of the instrument.
- ▶ Assessment should be ongoing.

(Benson & Kranzler, 2017; Jiban, 2013; Johnsen, 2009; Johnsen, 2012; Lohman & Korb, 2006; McClain & Pfeiffer, 2012; Moon, 2010; NAGC, 2008, O’Connor et al., 2017; Worrell & Erwin, 2011; Worrell et al., 2019; Wright & Ford, 2017; Wu, 2009; Wu, 2010).

Thompson and Morris (2018) concur that the current shift in the conceptualization of giftedness includes abilities that reach beyond general intelligence; and the focus on capturing students with differing backgrounds requires fair and unbiased methods. However, they also caution practitioners and educators about important ethical considerations. They stress that the lack of quantifiable characteristics and abilities in the definitions of giftedness, and the use of alternative assessment procedures can lead to

difficulties in the reliability and validity of the assessment methods being used. As noted in the best practices, professionals have the responsibility to provide services based on sound standards of practice.

Addressing the Needs of Young Gifted Children

Research regarding giftedness in the primary years emphasizes the importance of early intervention and quality programming for young gifted children. There is strong consensus that, like all children, young gifted children need to engage in developmentally appropriate curricula and pedagogical practices that meet their unique learning needs (Subotnik, Olszewski-Kubilius, & Worrell, 2011; Walsh, Kemp, Hodge, & Bowes, 2012). As such, the literature highlights the following key benefits of early intervention and programming: (1) optimizes gifted children's developmental potential; (2) produces positive academic and psychosocial outcomes; (3) prevents academic underachievement later in life; (4) reduces social-emotional challenges and behavioural difficulties; and (5) increases personal acceptance and understanding of one's full potential (Kettler, Oveross, & Bishop, 2017; Porath, 2011; Saranlı, 2017). Common approaches for educational programming within schools include: (1) enrichment through differentiation and broadening the curriculum, particularly in the child's area of interest, (2) early school entry as a form of acceleration, (3) individualized programs, and (4) ability grouping for instructional and socio-affective purposes (Koshy & Pascal, 2011; Porath, 2011; Walsh, et al., 2012; Wilson, 2015).

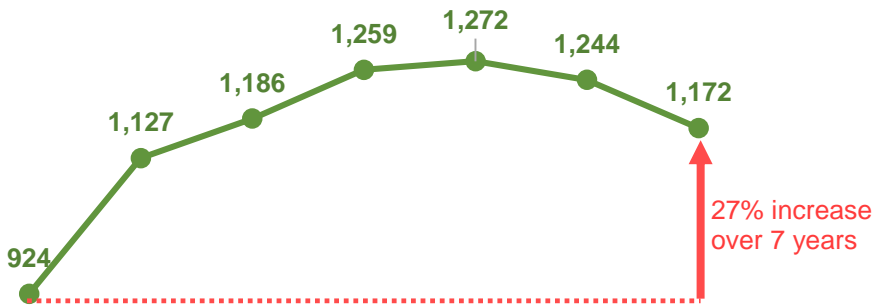
While the above listed strategies are the more frequently offered educational approaches, there is little research regarding their effects on young gifted children. There remains to be a large gap in evidence-based practice and empirical studies pertaining to the effectiveness in meeting the needs of young gifted children, and achieving the desired outcomes (Koshy & Pascal, 2011; O'Connor et al., 2017; Saranlı, 2017; Subotnik et al., 2011; Walsh et al., 2012; Wilson, 2015; Worrell, Subotnik, Olszewski-Kubilius, & Dixon, 2019). Much of the existing literature addressing the effectiveness of educational practices with this age group represents opinions of child development professionals; is based on practitioner experience; reflects research conducted on older children; and/or are products of poorly designed studies (Koshy & Pascal, 2011; O'Connor, et al., 2017; Walsh et al., 2012). In addition, research reviews have highlighted various difficulties in assessing the quality and effectiveness of gifted educational practices involving young children. These challenges include: small sample sizes, sampling issues, lack of consensus in the definitions of giftedness at a young age, determining appropriate dependent variables to use with gifted children, and issues with establishing measurable goals (Walsh et al., 2012).

Overall, early recognition and timely identification will continue to improve the chances for gifted children to fulfill their potential (Johnsen, 2009). Given our current understanding of early childhood development, the modern conceptualizations of giftedness, and the inherent limitations with individual instruments and assessment results; researchers and childhood experts are increasingly endorsing identification practices that involve a multidimensional process involving a range of information sources, using a variety of sound quantitative and qualitative assessment procedures, in different settings (Benson & Kranzler, 2017). In turn, this comprehensive process will work to reduce bias, capture diverse learners, and ultimately lend to a more effective identification process (NAGC, 2008; Worrell & Dixon, 2018; Wu, 2010). As with all children, the research clearly supports instructional strategies and quality programming that strive to address the developmental and learning needs of young gifted students. However, in order to determine successful educational practices that provide the best outcomes for young gifted children, a greater focus on well-designed empirical research is needed to critically evaluate their quality and effectiveness.



ENROLMENT AMONG ELEMENTARY STUDENTS WITH A GIFTED EXCEPTIONALITY IN THE HDSB

Figure 1a: ELEMENTARY Student Enrolment Students with a Gifted Exceptionality in the HDSB Over Seven Years



2012-13 2013-14 2014-15 2015-16 2016-17 2017-18 2018-19

Note: Data represent student enrolment on October 31 for each year.

KEY FINDINGS Elementary Student Enrolment

- Over 7 years:
- ▶ **ELEMENTARY** enrolment among students with a gifted exceptionality increased by 27%.
 - ▶ **PRIMARY** enrolment decreased by 49%; **JUNIOR** enrolment increased by 63%; and **INTERMEDIATE** enrolment increased by 63%.
 - ▶ The proportion of **ELEMENTARY** students in Resource Support placement ranged between 29% and 40%; and the proportion of students in Self-Contained placement ranged between 60% and 71%.

Figure 1b: ELEMENTARY Student Enrolment Students with a Gifted Exceptionality in the HDSB Over Seven Years – by Division and Placement

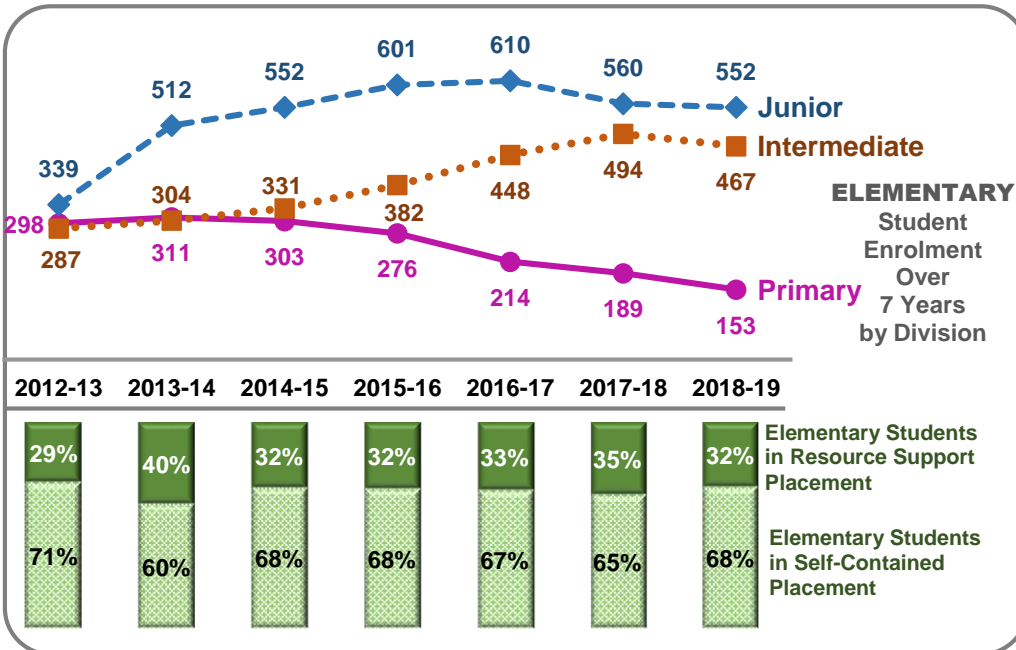
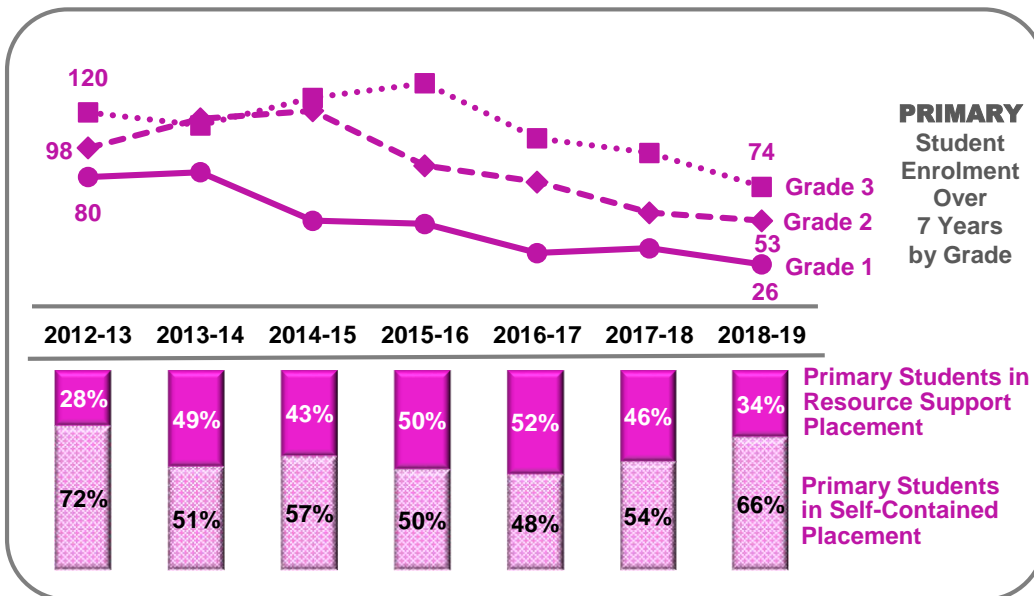


Figure 1c: PRIMARY Student Enrolment
Students with a Gifted Exceptionality in the HDSB
Over Seven Years – by Grade and Placement

KEY FINDINGS
Primary Student Enrolment



Over 7 years:

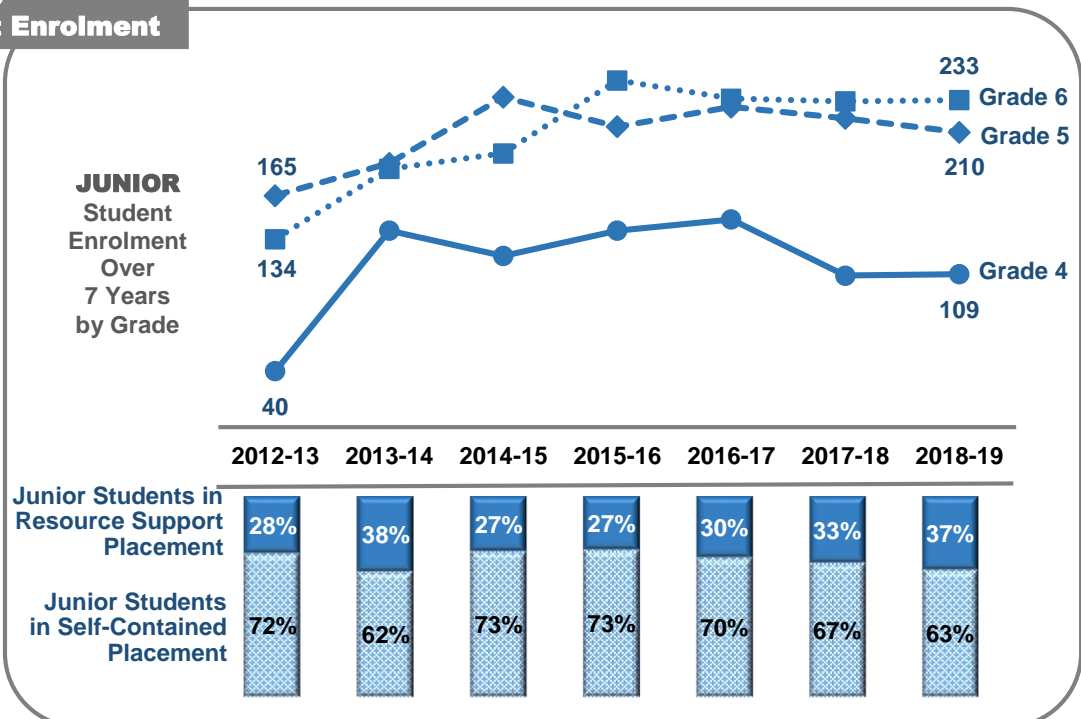
- ▶ **PRIMARY** student enrolment decreased in:
 - Grade 1 by 68%.
 - Grade 2 by 46%.
 - Grade 3 by 38%.
- ▶ The proportion of **PRIMARY** students in Resource Support placement varied, ranging from 28% to 52%.
- ▶ The proportion of **PRIMARY** students in Self-Contained placement varied, ranging from 48% to 72%.

Figure 1d: JUNIOR Student Enrolment
Students with a Gifted Exceptionality in the HDSB
Over Seven Years – by Grade and Placement

KEY FINDINGS
Junior Student Enrolment

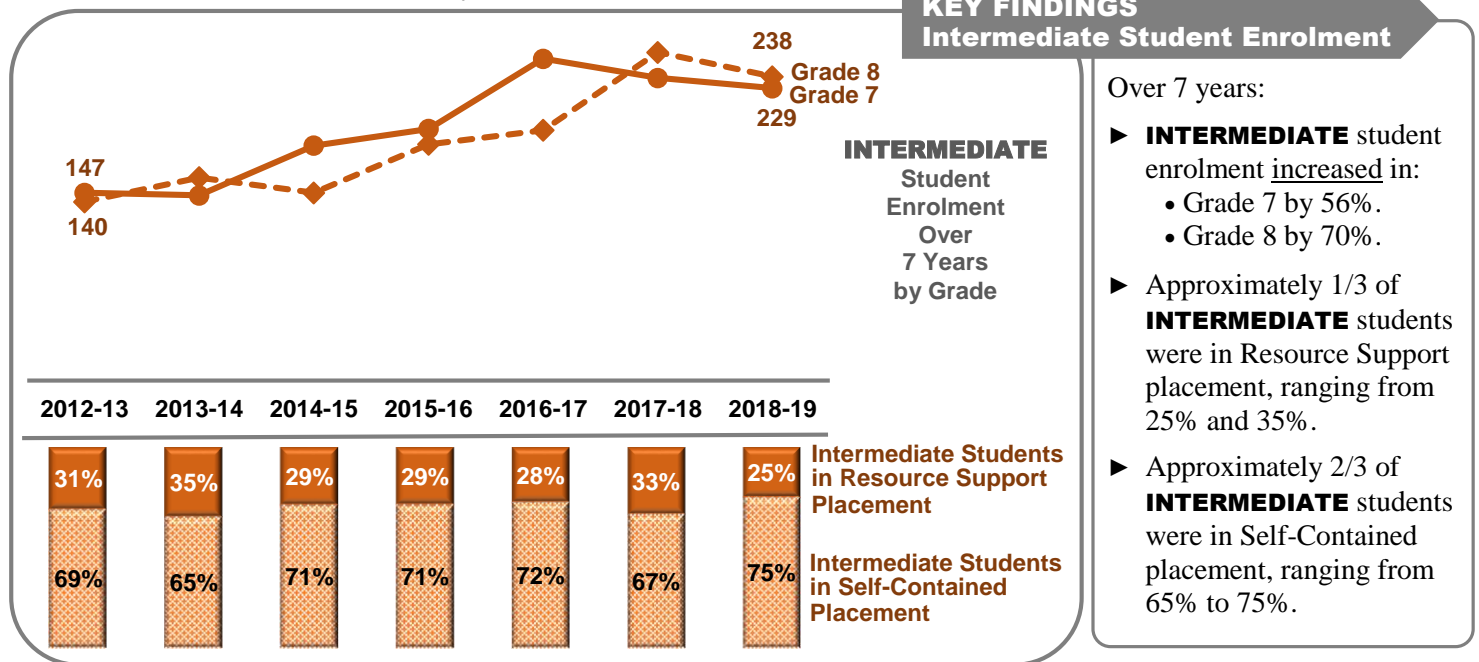
Over 7 years:

- ▶ **JUNIOR** student enrolment increased in:
 - Grade 4 by 173%.
 - Grade 5 by 27%.
 - Grade 6 by 74%.
- ▶ Approximately 1/3 of **JUNIOR** students were in Resource Support placement, ranging from 27% to 38%.
- ▶ Approximately 2/3 of **JUNIOR** students were in Self-Contained placement, ranging from 62% to 73%.



Note: Currently, the HDSB has 153 primary gifted students (in Grades 1–3) and 109 gifted students in Grade 4. The total enrolment in the primary Gifted program for the 2018-2019 school year is 262 students, of which 158 students (60%) are enrolled in Self-Contained classrooms, and 104 students (40%) are receiving Resource Support in regular classrooms.

Figure 1e: INTERMEDIATE Student Enrolment Students with a Gifted Exceptionality in the HDSB Over Seven Years – by Grade and Placement



KEY FINDINGS Elementary Enrolment by Gender

Over 7 years:

- ▶ Approximately 2/3 of **ELEMENTARY** students with a gifted exceptionality were male.
- ▶ Approximately 1/3 of **ELEMENTARY** students with a gifted exceptionality were female.

Figure 2: ELEMENTARY Student Enrolment Students with a Gifted Exceptionality in the HDSB Over Seven Years – by Gender

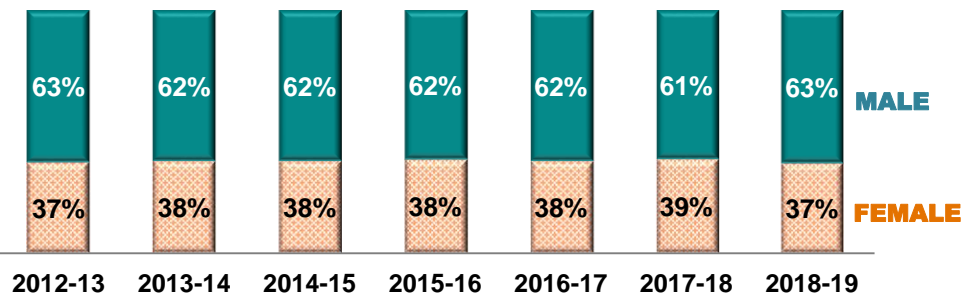
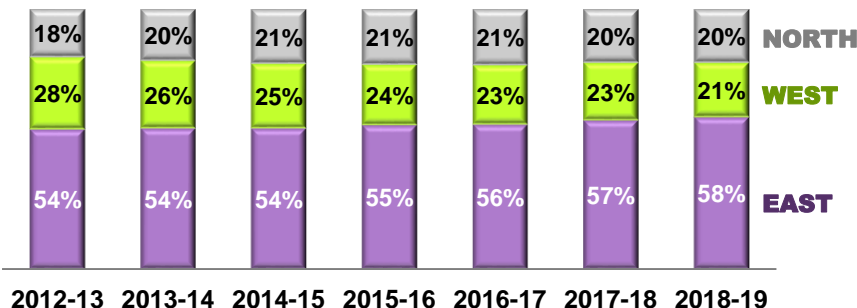


Figure 3: ELEMENTARY Student Enrolment Students with a Gifted Exceptionality in the HDSB Over Seven Years – by Area

KEY FINDINGS Elementary Enrolment by Area

Over 7 years:

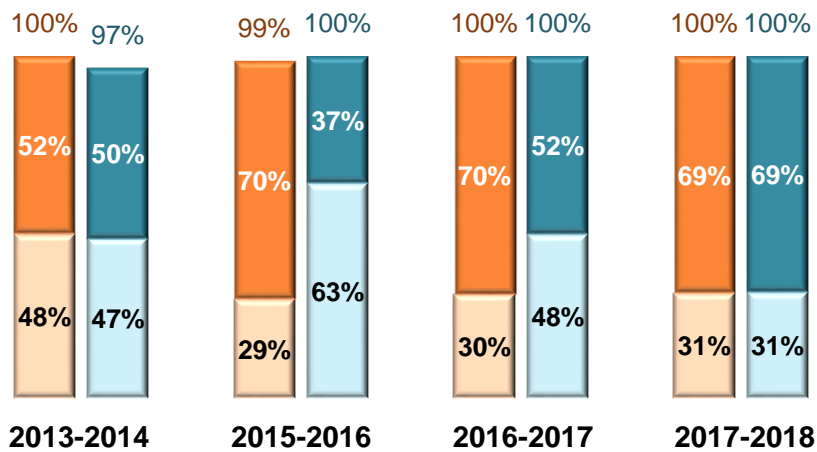
- ▶ Over half of **ELEMENTARY** students with a gifted exceptionality attended schools in the East (average of 55%).
- ▶ A smaller proportion of **ELEMENTARY** students with a gifted exceptionality attended schools in the West (average of 24%) and the North (average of 20%).



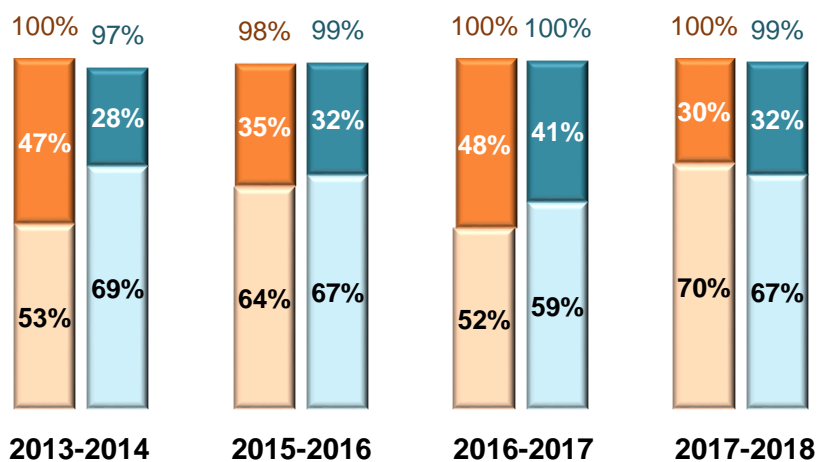


EQAO ACHIEVEMENT RESULTS AMONG ELEMENTARY STUDENTS WITH A GIFTED EXCEPTIONALITY

Figure 4a: EQAO Results – GRADE 3 & GRADE 6 READING
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4
 Over Four Years – By Placement



GRADE 3 – Reading



GRADE 6 – Reading

KEY FINDINGS – EQAO Results for READING over 4 Years

Over 4 years, **READING** results among **GRADE 3** students with a gifted exceptionalty demonstrated:

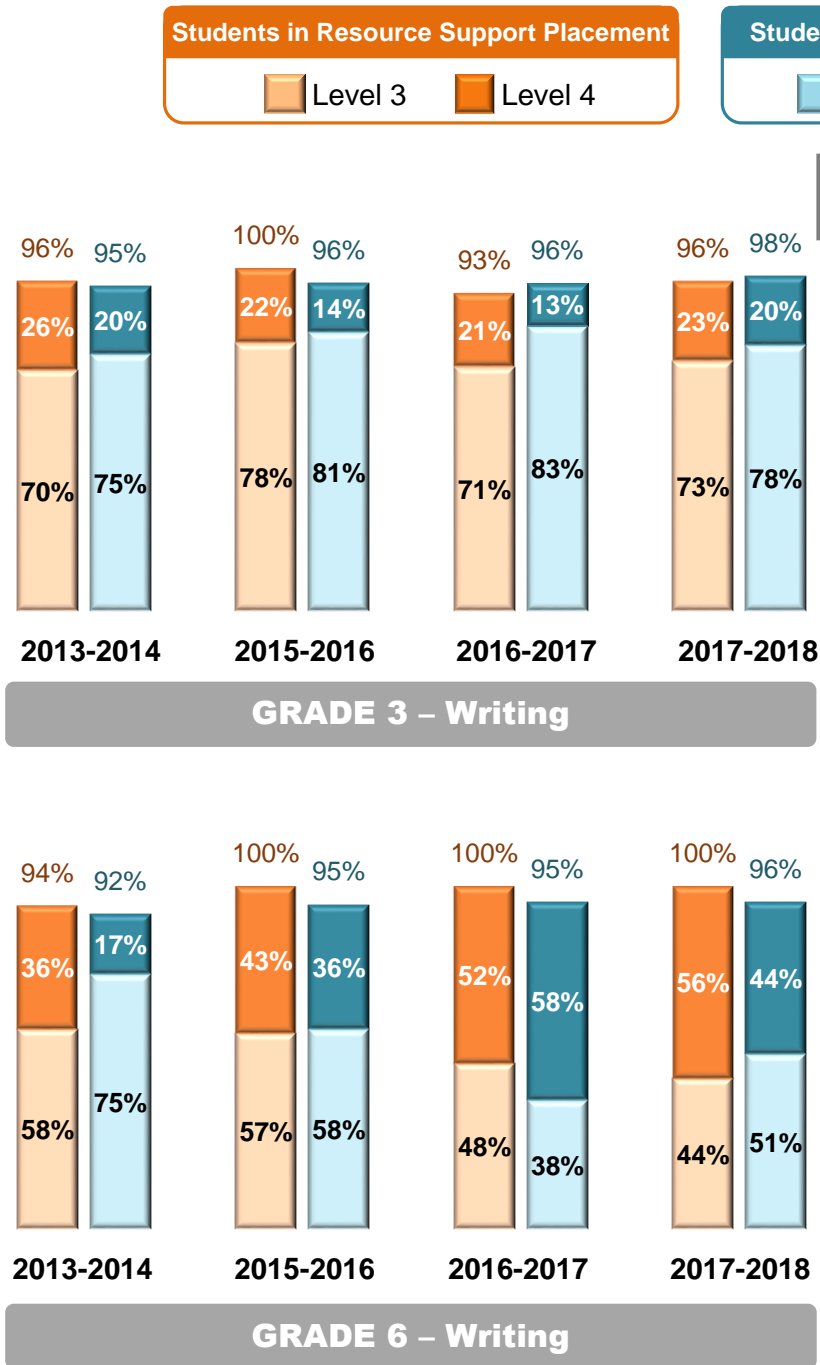
- ▶ an increase in Level 4 achievement among students in Resource Support placement (52% to 69%) and students in Self-Contained placement (50% to 69%).
- ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2015-16 (70% vs. 37%), and 2016-17 (70% vs. 52%).
- ▶ similar proportions of students in Resource Support placement and students in Self-Contained placement achieved Levels 3 & 4 in 2017-18.

Over 4 years, **READING** results among **GRADE 6** students with a gifted exceptionalty demonstrated:

- ▶ a decrease in Level 4 achievement among students in Resource Support placement (47% to 30%).
- ▶ an increase in Level 4 achievement among students in Self-Contained placement between 2013-14 to 2016-17 (28% to 41%).
- ▶ similar proportions of students in Resource Support placement and students in Self-Contained placement achieved Levels 3 & 4 in 2015-16, 2016-17 and 2017-18.

Note: Due to labour action, primary and junior EQAO assessments were not conducted during the 2014-2015 school year.

Figure 4b: EQAO Results – GRADE 3 & GRADE 6 WRITING
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4
 Over Four Years – By Placement



KEY FINDINGS – EQAO Results for WRITING over 4 Years

Over 4 years, **WRITING** results among **GRADE 3** students with a gifted exceptionality demonstrated:

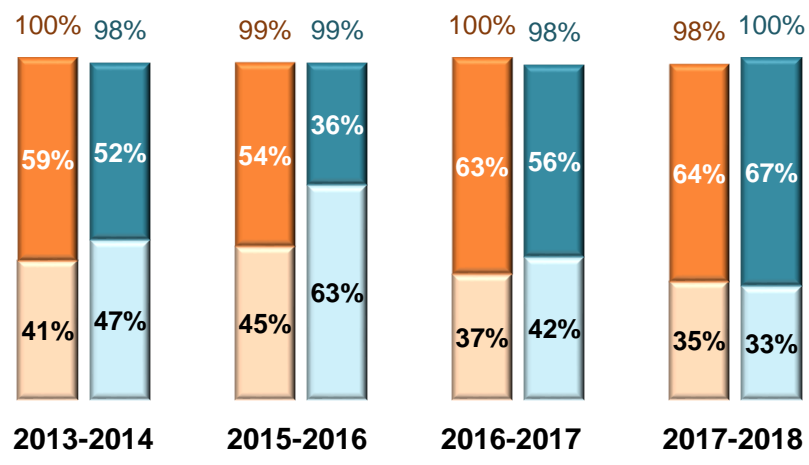
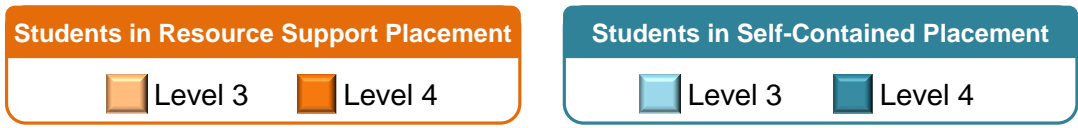
- ▶ relatively consistent achievement among students in Resource Support placement and students in Self-Contained placement, over the years.
- ▶ a slightly larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2015-16 (22% vs. 14%) and 2016-17 (21% vs. 13%).
- ▶ similar proportions of students in Resource Support placement and students in Self-Contained placement achieved Levels 3 & 4 in 2017-18.

Over 4 years, **WRITING** results among **GRADE 6** students with a gifted exceptionality demonstrated:

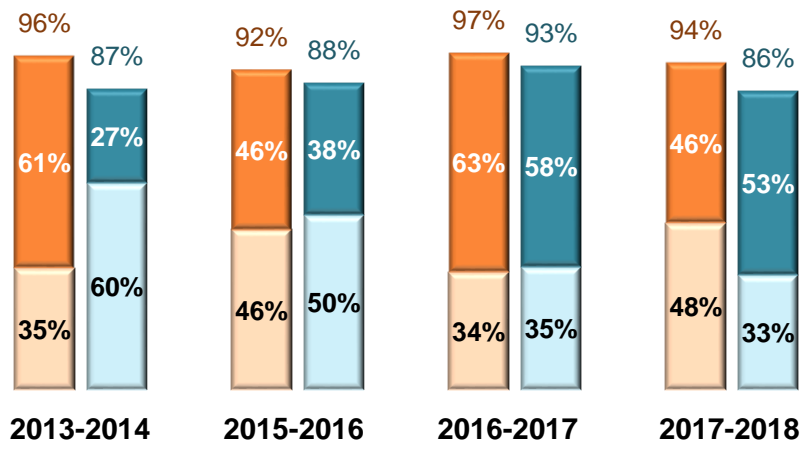
- ▶ an increase in Level 4 achievement among students in Resource Support placement (36% to 56%), and among students in Self-Contained placement (17% to 44%).
- ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2017-18 (56% vs. 44%).

Note: Due to labour action, primary and junior EQAO assessments were not conducted during the 2014-2015 school year.

Figure 4c: EQAO Results – GRADE 3 & GRADE 6 MATHEMATICS
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4
 Over Four Years – By Placement



GRADE 3 – Mathematics



GRADE 6 – Mathematics

KEY FINDINGS – EQAO Results for MATHEMATICS over 4 Years

Over 4 years, **MATHEMATICS** results among **GRADE 3** students with a gifted exceptionality demonstrated:

- ▶ relatively consistent achievement among students in Resource Support placement, over the years.
- ▶ an increase in Level 4 achievement among students in Self-Contained placement (52% to 67%).
- ▶ a slightly larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2015-16 (54% vs. 36%), 2016-17 (63% vs. 56%).
- ▶ similar proportions of students in Resource Support placement and students in Self-Contained placement achieved Levels 3 & 4 in 2017-18.

Over 4 years, **MATHEMATICS** results among **GRADE 6** students with a gifted exceptionality demonstrated:

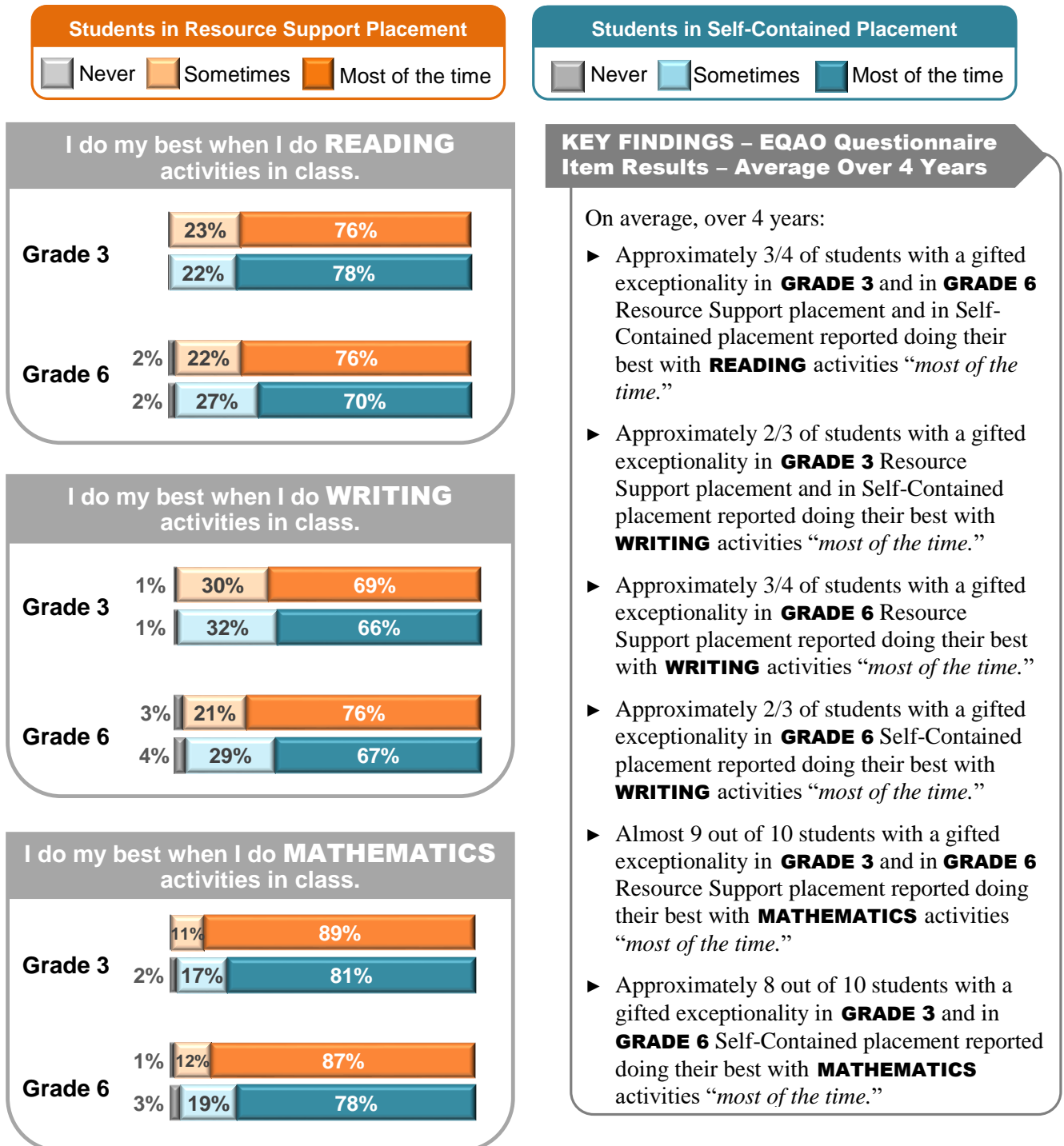
- ▶ a slightly larger proportion of students in Resource Support placement achieved the provincial standard (Level 3, 4) over four years, when compared to students in Self-Contained placement.
- ▶ a decrease in Level 4 achievement among students in Resource Support placement (61% to 46%).
- ▶ an increase in Level 4 achievement among students in Self-Contained placement (27% to 53%).
- ▶ a slightly larger proportion of students in Self-Contained placement achieved Level 4, when compared to students in Resource Support placement in 2017-18 (53% vs. 46%).

Note: Due to labour action, primary and junior EQAO assessments were not conducted during the 2014-2015 school year.



LEARNING ATTITUDES AMONG ELEMENTARY STUDENTS WITH A GIFTED EXCEPTIONALITY

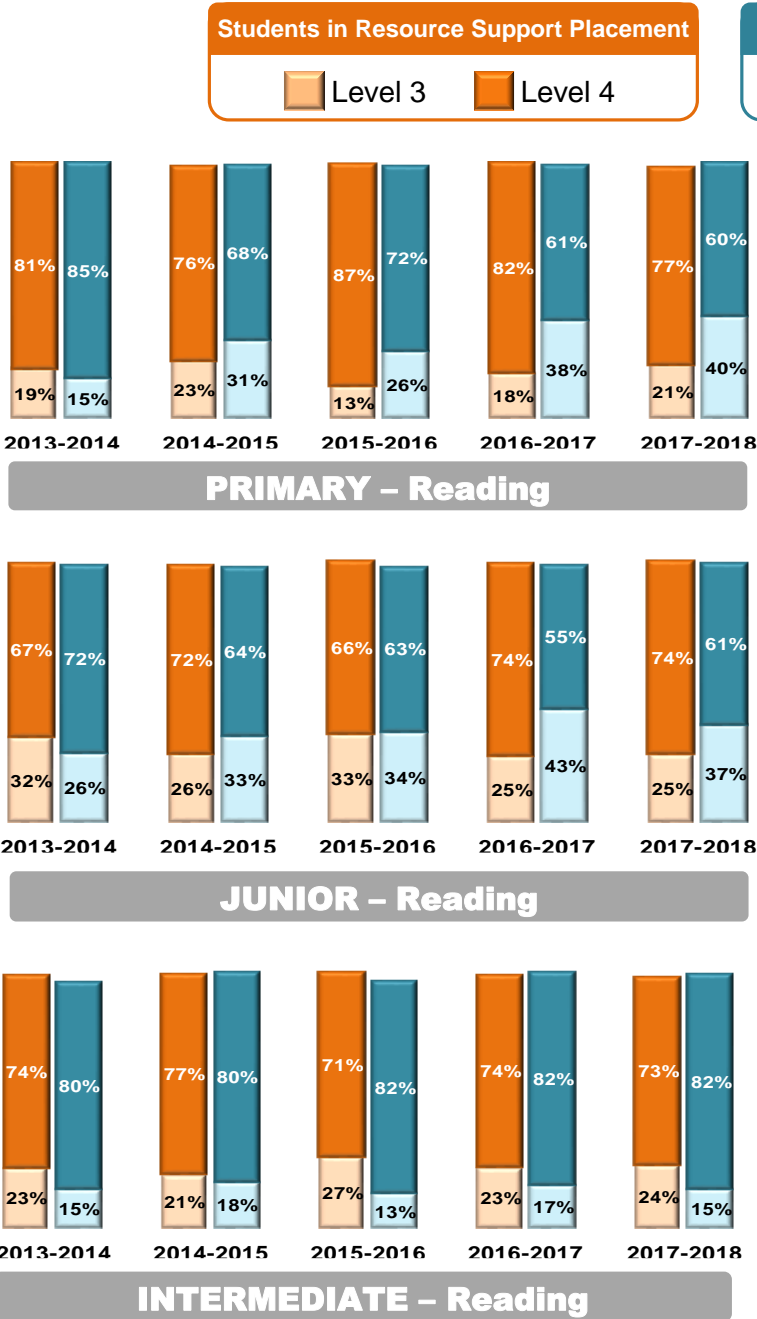
Figure 5: EQAO Results – **GRADE 3 & GRADE 6** Student Questionnaire Items
Average Percentage of Elementary Students with a Gifted Exceptionality in the HDSB who Reported Doing Their Best in **READING, WRITING, and MATHEMATICS** Activities in Class
Average Over Four Years – By Placement





REPORT CARD ACHIEVEMENT RESULTS AMONG ELEMENTARY STUDENTS WITH A GIFTED EXCEPTIONALITY

Figure 6a: Report Card Results – Language Strand **READING**
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4 on the Final Report
 Over Five Years – By Division and Placement

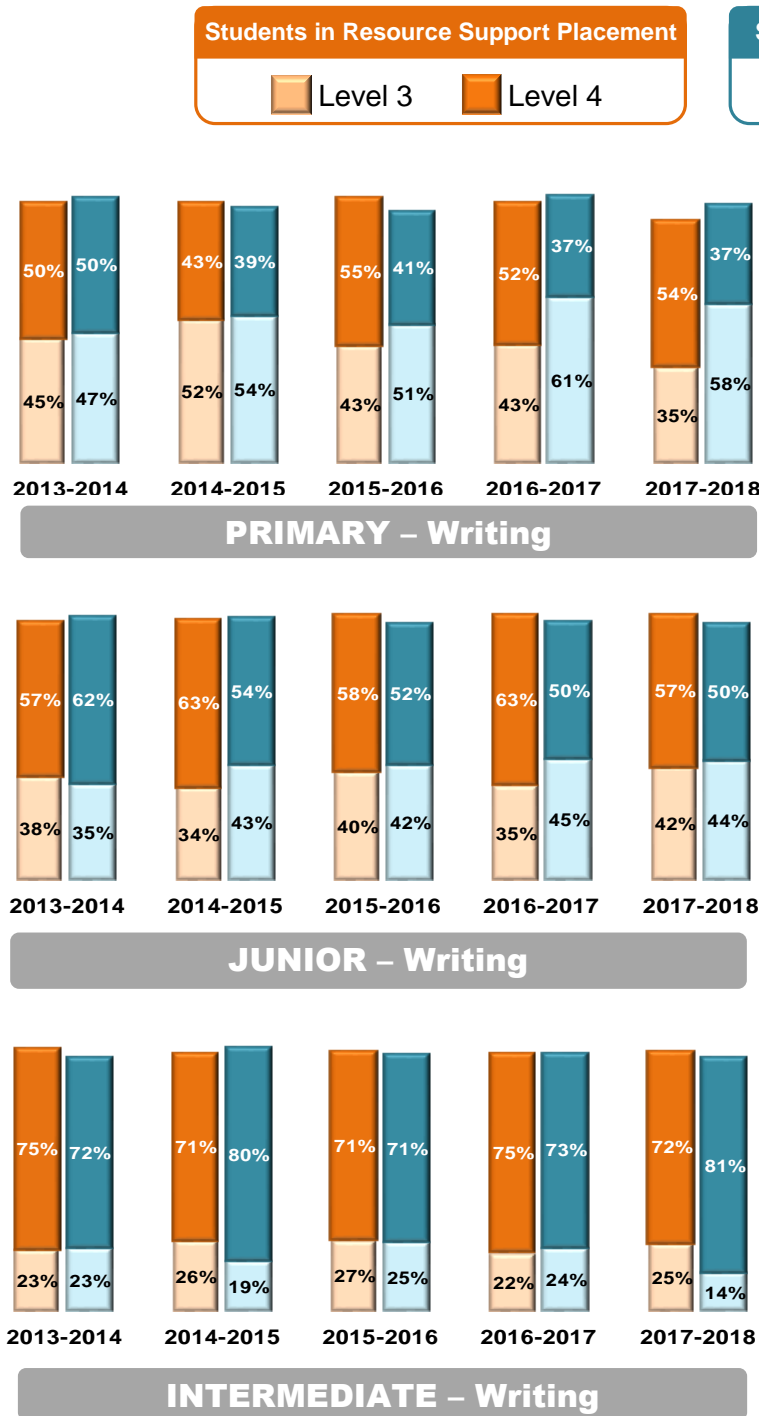


KEY FINDINGS – Final Report Card Results for **READING** over 5 Years

- Over 5 years:
- READING** results among **PRIMARY** students with a gifted exceptionality demonstrated:
 - ▶ relatively consistent achievement among students in Resource Support placement.
 - ▶ a decrease in Level 4 achievement among students in Self-Contained placement (85% to 60%).
 - ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2015-2016 (87% vs. 72%), 2016-17 (82% vs. 61%), and 2017-18 (77% vs. 60%).
 - READING** results among **JUNIOR** students with a gifted exceptionality demonstrated:
 - ▶ a slight increase in Level 4 achievement among students in Resource Support placement (67% to 74%).
 - ▶ a decrease in Level 4 achievement among students in Self-Contained placement (72% to 61%).
 - ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2016-17 (74% vs. 55%), and 2017-18 (74% vs. 61%).
 - READING** results among **INTERMEDIATE** students with a gifted exceptionality demonstrated:
 - ▶ relatively consistent achievement among students in Resource Support placement and among students in Self-Contained placement.
 - ▶ slightly larger proportions of students in Self-Contained placement achieved Level 4, when compared to students in Resource Support

Note: For Primary and Junior grades (Grades 1 – 6):
 Level 3: students attained a letter grade between B- and B+.
 Level 4: students attained a letter grade between A- and A+.
 For Intermediate grades (Grades 7 & 8):
 Level 3: students attained a percentage mark between 70% - 79%.
 Level 4: students attained a percentage mark between 80% - 100%.

Figure 6b: Report Card Results – Language Strand **WRITING**
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4 on the Final Report
 Over Five Years – By Division and Placement



KEY FINDINGS – Final Report Card Results for WRITING over 5 Years

Over 5 years:

WRITING results among **PRIMARY** students with a gifted exceptionality demonstrated:

- ▶ slight variations in achievement among students in Resource Support placement.
- ▶ a decrease in Level 4 achievement among students in Self-Contained placement (50% to 37%).
- ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained classes in 2016-17 (52% vs. 37%), and 2017-18 (54% vs. 37%).

WRITING results among **JUNIOR** students with a gifted exceptionality demonstrated:

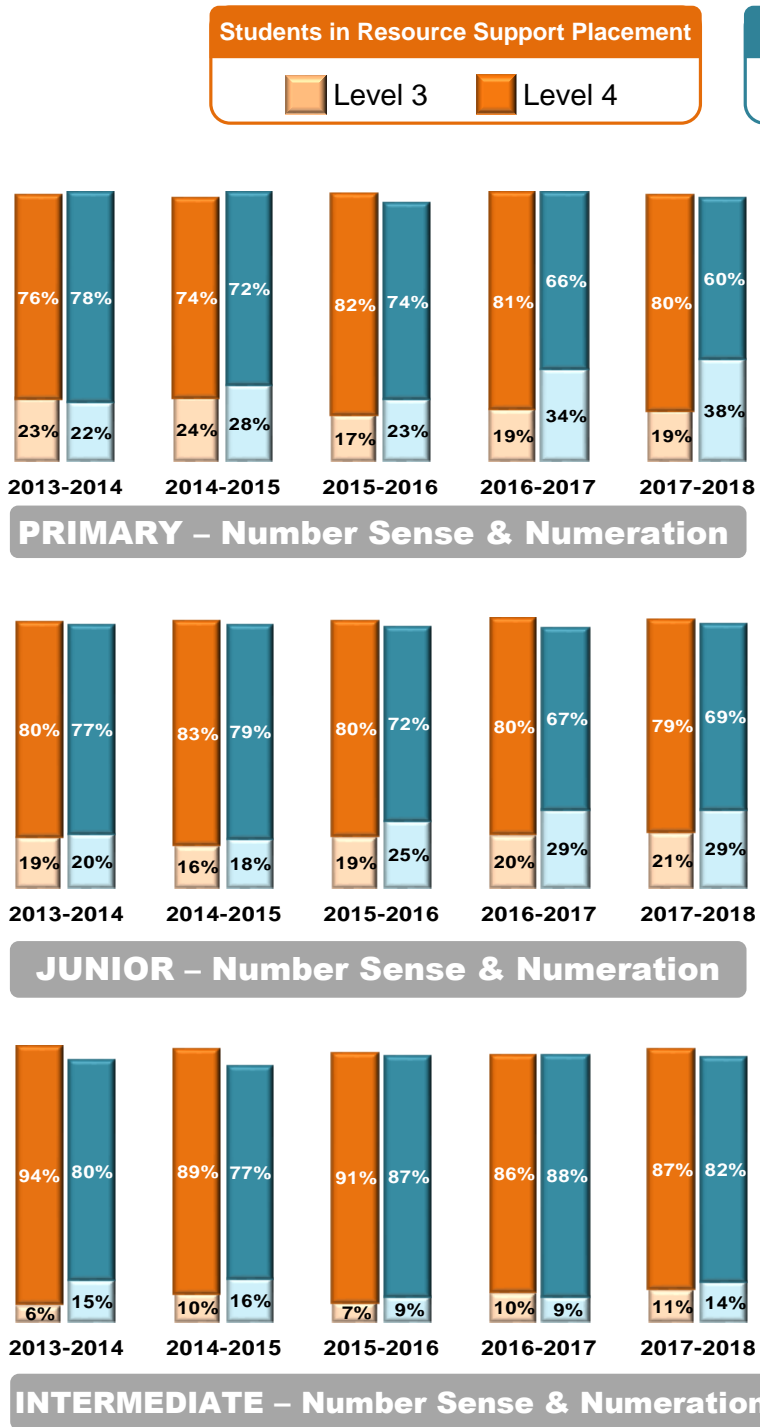
- ▶ relatively consistent achievement among students in Resource Support placement.
- ▶ a decrease in Level 4 achievement among students in Self-Contained placement (62% to 50%).
- ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2016-17 (63% vs. 50%), and 2017-18 (57% vs. 50%).

WRITING results among **INTERMEDIATE** students with a gifted exceptionality demonstrated:

- ▶ relatively consistent achievement among students in Resource Support placement.
- ▶ slight variations in achievement among students in Self-Contained placement.
- ▶ a slightly larger proportion of students in Self-Contained placement achieved Level 4, when compared to students in Resource Support placement in 2017-2018 (81% vs. 72%).

Note: For Primary and Junior grades (Grades 1 – 6):
 Level 3: students attained a letter grade between B- and B+.
 Level 4: students attained a letter grade between A- and A+.
 For Intermediate grades (Grades 7 & 8):
 Level 3: students attained a percentage mark between 70% - 79%.
 Level 4: students attained a percentage mark between 80% - 100%.

Figure 6c: Report Card Results – Mathematics Strand **NUMBER SENSE and **NUMERATION****
Percentage of Elementary Students with a Gifted Exceptionality in the HDSB
who Achieved Level 3 or 4 on the Final Report
Over Five Years – By Division and Placement



KEY FINDINGS – Final Report Card Results for NUMBER SENSE and NUMERATION Over 5 Years

- Over 5 years:
- NUMBER SENSE & NUMERATION** results among **PRIMARY** students with a gifted exceptionality demonstrated:
 - ▶ relatively consistent achievement among students in Resource Support placement.
 - ▶ a decrease in Level 4 achievement among students in Self-Contained placement (78% to 60%).
 - ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2016-17 (81% vs. 66%), and 2017-18 (80% vs. 60%).
 - NUMBER SENSE & NUMERATION** results among **JUNIOR** students with a gifted exceptionality demonstrated:
 - ▶ relatively consistent achievement among students in Resource Support placement.
 - ▶ a slight decrease in Level 4 achievement among students in Self-Contained placement (77% to 69%).
 - ▶ a larger proportion of students in Resource Support placement achieved Level 4, when compared to students in Self-Contained placement in 2016-17 (80% vs. 67%), and 2017-18 (79% vs. 69%).
 - NUMBER SENSE & NUMERATION** results among **INTERMEDIATE** students with a gifted exceptionality demonstrated:
 - ▶ relatively consistent achievement among students in Resource Support placement
 - ▶ slight variations in achievement among students in Self-Contained placement.
 - ▶ the proportion of students achieving Level 4 in Self-Contained placement was relatively similar to students in Resource Support placement in 2015-16 (91% and 87%), 2016-17 (86% and 88%), and 2017-18 (87% and 82%).

Note: For Primary and Junior grades (Grades 1 – 6):
 Level 3: students attained a letter grade between B- and B+.
 Level 4: students attained a letter grade between A- and A+.
 For Intermediate grades (Grades 7 & 8):
 Level 3: students attained a percentage mark between 70% - 79%.
 Level 4: students attained a percentage mark between 80% - 100%.



LEARNING SKILLS & WORK HABITS AMONG ELEMENTARY STUDENTS WITH A GIFTED EXCEPTIONALITY

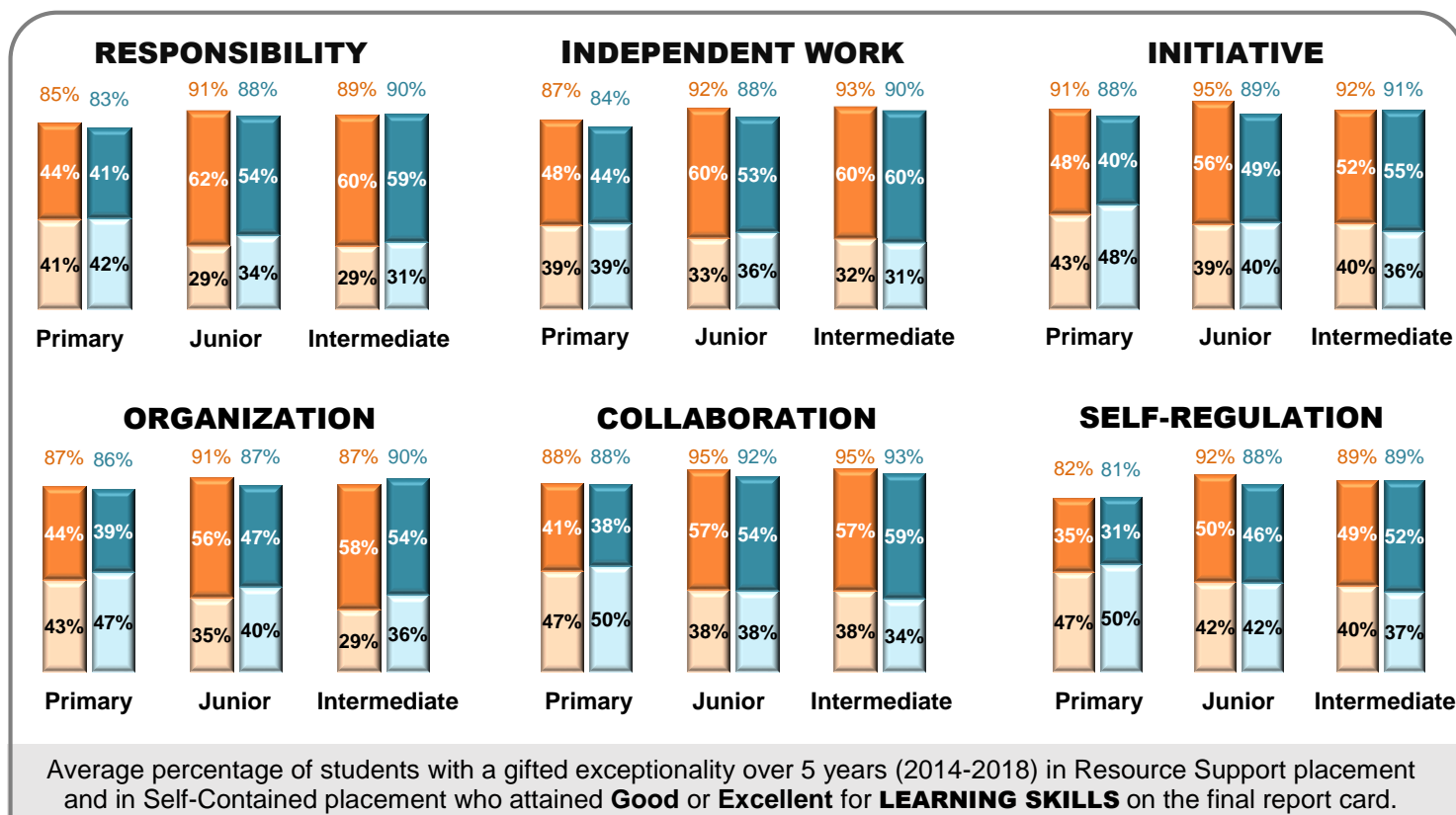
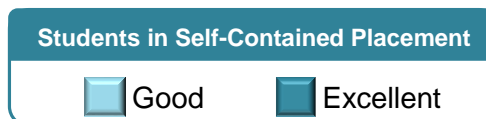
Figure 7: Report Card Results – **LEARNING SKILLS & WORK HABITS**

Among Students with a Gifted Exceptionality

Average Percentage of Elementary Students Who Attained Good or Excellent on the Final Report Card

Average Over Five Years – 2014 to 2018

By Division and Placement



KEY FINDINGS – Final Report Card Results for LEARNING SKILLS & WORK HABITS

Average Over 5 Years

On average, over 5 years, the majority of gifted primary, junior, and intermediate students in Resource Support and Self-Contained placements achieved **GOOD** or **EXCELLENT** on the final report card for **ALL LEARNING SKILLS & WORK HABITS**.

On average, between **PRIMARY** and **INTERMEDIATE** grade levels, report card results over 5 years demonstrated that the proportion of students with a gifted exceptionality achieving **EXCELLENT**:

- increased for **ALL LEARNING SKILLS & WORK HABITS** among students in Resource Support placement and among students in Self-Contained placement.
- increased most among students in Resource Support placement for **COLLABORATION** (average from 41% to 57%), followed by **RESPONSIBILITY** (average from 44% to 60%), **SELF-REGULATION** (average from 35% to 49%), and **ORGANIZATION** (average from 44% to 58%).
- increased most among students in Self-Contained placement for **COLLABORATION** (average ranging from 38% to 59%), followed by **SELF-REGULATION** (average from 31% to 52%), and **RESPONSIBILITY** (average from 41% to 59%).



PARENT SATISFACTION & PERCEPTIONS OF SCHOOL AND THE GIFTED PROGRAM

Parent/Guardian Survey Results – 2016-2017 School Year

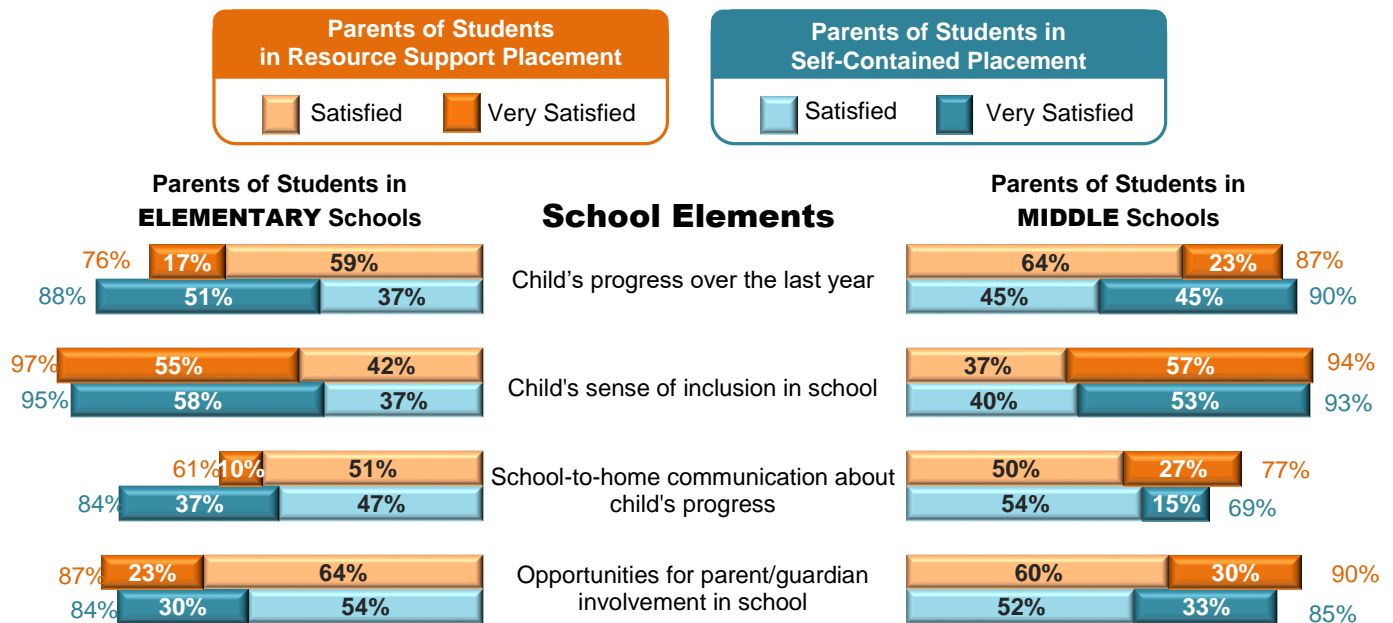
Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools

The following data reflect parents' reported satisfaction and perceptions of elements related to school and the Gifted program. The survey was distributed to all parents of students with an exceptionality in the HDSB during the 2016-2017 school year, as part of the Special Education Programs and Services Review – Phase I (Love and Favaro, 2017).

Total # of parent/guardian survey respondents with children in the Gifted program = 533.

- ▶ Parents of students in elementary school – 43%: Resource Support: $n=87$; Self-Contained placement: $n=128$
- ▶ Parents of students in middle school – 35%: Resource Support: $n=46$; Self-Contained placement: $n=131$
- ▶ Parents of students in secondary school – 22%.

Figure 8a: Reported Satisfaction of School Elements Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools
During the 2016-2017 School Year



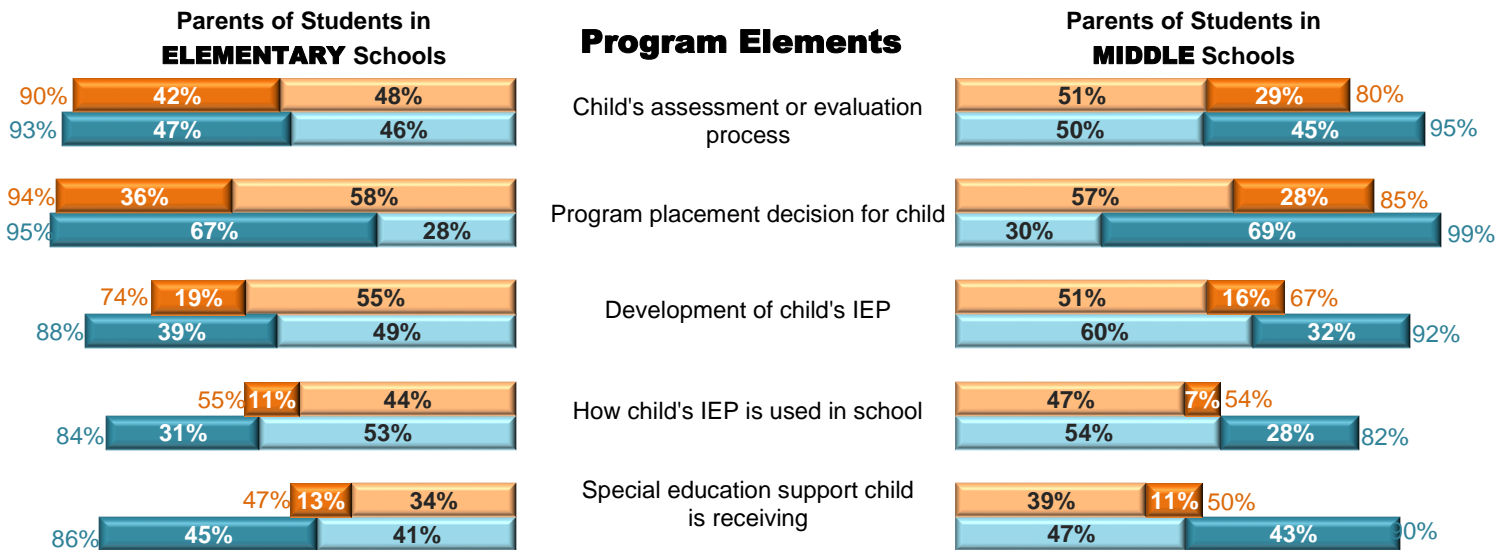
KEY FINDINGS – Parent Survey Results for SCHOOL ELEMENTS

Compared to parents of **ELEMENTARY** students with a gifted exceptionality in Resource Support placement, parents of students in Self-Contained placement reported a higher level of satisfaction with school-to-home communication about their child's progress over the 2016-2107 school year.

Compared to parents of **MIDDLE SCHOOL** students with a gifted exceptionality in Self-Contained placement, parents of students in Resource Support placement reported a higher level of satisfaction with school-to-home communication about their child's progress over the 2016-2107 school year.

Compared to parents of **ELEMENTARY** and **MIDDLE SCHOOL** students with a gifted exceptionality in Resource Support placement, parents of students in Self-Contained placement reported higher levels of satisfaction with their child's progress over the 2016-2107 school year.

Figure 8b: Reported Satisfaction of Program Elements Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools
During the 2016-2017 School Year



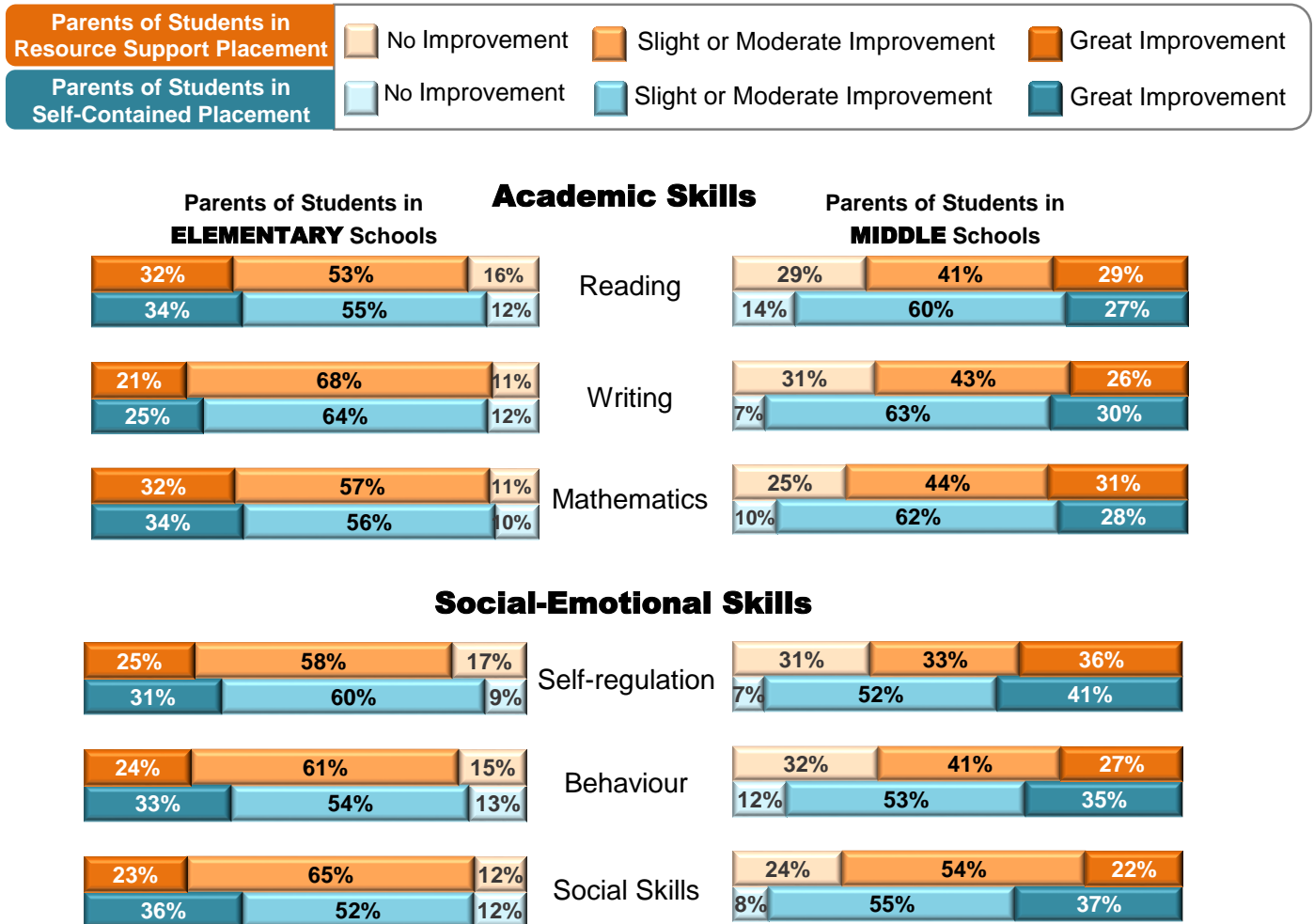
KEY FINDINGS – Parent Survey Results for PROGRAM ELEMENTS

Compared to parents of **MIDDLE SCHOOL** students with a gifted exceptionality in Resource Support placement, parents of students in Self-Contained placement reported a higher level of satisfaction with their child's assessment or evaluation process.

Compared to parents of **ELEMENTARY** and **MIDDLE SCHOOL** students with a gifted exceptionality in Resource Support placement, parents of students in Self-Contained placement reported considerably higher levels of satisfaction with:

- ▶ the program placement decision for their child
- ▶ the development of their child's IEP
- ▶ how their child's IEP is used in school
- ▶ the special education support their child is receiving

Figure 9: Extent to Which Parents Reported Improvement in their Child's Academic Skills & Social-Emotional Skills in Elementary and Middle Schools
During the 2016-2017 School Year



KEY FINDINGS – Parent Survey Results for ACADEMIC & SOCIAL-EMOTIONAL SKILLS

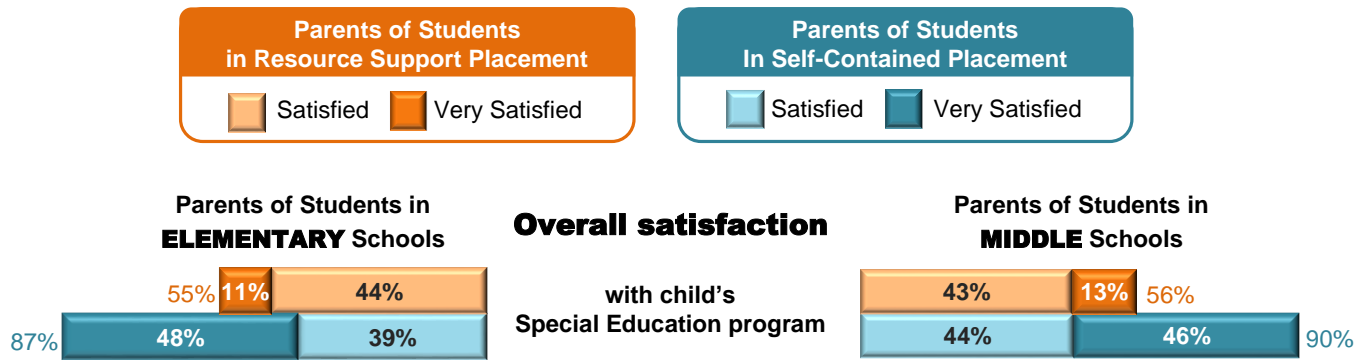
Parents of **ELEMENTARY** students with a gifted exceptionality in Resource Support placement and in Self-Contained placement reported relatively similar levels of improvement with their child's **READING, WRITING** and **MATHEMATICS** skills during the 2016-2017 school year.

Compared to parents of **MIDDLE SCHOOL** students with a gifted exceptionality in Self-Contained placement, a larger proportion of parents of students in Resource Support placement reported no improvement with their child's **READING** skills (14% vs 29%), **WRITING** skills (7% vs 31%) and **MATHEMATICS** skills (10% vs 25%) during the 2016-2017 school year.

Compared to parents of **ELEMENTARY SCHOOL** students with a gifted exceptionality in Resource Support placement, a larger proportion of parents of students in Self-Contained placement reported great improvement with their child's **SELF-REGULATION** skills (25% vs 31%), **BEHAVIOUR** skills (24% vs 33%) and **SOCIAL** skills (23% vs 36%) during the 2016-2017 school year.

Compared to parents of **MIDDLE SCHOOL** students with a gifted exceptionality in Self-Contained classes, a larger proportion of parents of students receiving Resource Support reported no improvement with their child's **SELF-REGULATION** skills (7% vs 31%), **BEHAVIOUR** skills (12% vs 32%) and **SOCIAL** skills (8% vs 24%) during the 2016-2017 school year.

Figure 10: Reported Overall Program Satisfaction Among Parents of Students with a Gifted Exceptionality in Elementary and Middle Schools
During the 2016-2017 School Year



KEY FINDING – Parent Survey Results for OVERALL PROGRAM SATISFACTION

Compared to parents of **ELEMENTARY** and **MIDDLE SCHOOL** students with a gifted exceptionalty in Resource Support placement, parents of students in Self-Contained placement reported considerably higher levels of satisfaction with their child’s Special Education program during the 2016-2017 school year.



ENVIRONMENTAL SCAN RESULTS

Primary Gifted Programs in Other School Boards

An environmental scan of several Ontario school boards providing a primary Gifted program yielded the following boards:

1. Ottawa-Carleton District School Board (OCDSB)
2. Peel District School Board (PDSB)
3. Toronto District School Board (TDSB) – discontinued primary program in 2016

The OCDSB and the PDSB currently assess, identify, and provide Self-Contained placements for primary gifted students, and the TDSB recently discontinued their primary Gifted program. Given the small number of school boards currently offering primary Gifted programs, it was considered reasonable to include the previous model used by the TDSB in the results of the environmental scan. Table 2 provides details regarding the size of each school board.

Table 2: Size of Schools Yielded in the Environmental Scan (2018-2019 School Year)

School Board	Approximate # of Students	# of Elementary Schools	Approximate # of Elementary Students	Approximate # of Primary Gifted Students in Self-Contained Placement
Ottawa-Carleton DSB	73,000	118	49,000	11
Peel DSB	155,000	215	114,600	<40
Toronto DSB	246,000	471	173,000	4
Halton DSB	64,000	87	45,400	158

A large part of the environmental scan involved collecting and documenting information related to the assessment, identification, and placement options available to primary gifted students. Table 3 presents summarized results of this information. It can be seen in Table 3 that a variety of similarities and differences exist in the assessment, identification, and specialized program models used among the three school boards, and within the HDSB. Similar to the HDSB's primary Gifted program, the three neighbouring school boards reported using a combination of sources to inform student profiles; a referral or nomination process whereby teachers presented students for discussion at the School Resource Team; the WISC as part of the formal assessment process; and a tiered approach to intervention with various programming strategies. All three boards provided program support through Resource staff, technology as needed, and transportation for students in the Self-Contained placement, as does the HDSB.

Variations in practice between the school boards, and compared to the HDSB, included: the use of the Gifted Rating Scale in two boards (recently discontinued by the HDSB); one board's assessment and inclusion criteria for giftedness was 99.6th %ile (including profoundly gifted students only), while two boards, and the HDSB, used 98th %ile, with one board including students with significant challenges (e.g., social, behavioural), using a program focus to match, and capping class size at eight students; the CCAT-7 was used in two boards; and only one board used of a universal screening process (as does the HDSB). A final notable distinction between the three school boards, and the HDSB, is the difference in student enrolment numbers. Primary programs in the three neighbouring school boards serve fewer students, housing Self-Contained gifted classes in one or two schools, with one class in each school. The HDSB currently has nine primary Self-Contained gifted classes, housed in three schools (one in each geographic area), serving 158 students, with class sizes ranging from 11 – 25 students.

Table 3: Summary of Environmental Scan Results for Primary Gifted Models

Component	Details for Self-Contained Placement
Screening, Assessment Process, & Criteria for Self-Contained Placement	<ul style="list-style-type: none"> ▶ 2 boards used a referral process - teachers present students for discussion to an in-school multidisciplinary committee for enhanced programming considerations ▶ 1 board used a nomination process via teachers and/or parents and students are presented and discussed at School Resource Team ▶ 2 boards used the Gifted Rating Scale (GRS) ▶ 3 boards used the Wechsler Intelligence Scale for Children (WISC) (criteria: 99.6 %ile, 98th %ile, 98th %ile) ▶ 2 boards used the CCAT-7 Gifted criteria: 1 board used 99th %ile 1 board followed a point system using a matrix with 96th or 98th %ile depending on CCAT, GRS, and other assessment scores
Student Information	<ul style="list-style-type: none"> ▶ 3 boards used a combination of information sources (e.g., formal assessment results, educational assessments, academic profile, observations, parental consultations)
Inclusion Criteria	<ul style="list-style-type: none"> ▶ 3 boards included students with an intellectual gifted identification Additional criteria: 1 of board included students who were profoundly gifted 1 board included students who had significant challenges (e.g., social, behavioural), but not necessarily identified as dual exceptional.
Screening	<ul style="list-style-type: none"> ▶ 1 board used universal screening in Grade 4 ▶ 2 boards did not use a universal screening process
Intervention Approach	<ul style="list-style-type: none"> ▶ 3 boards employed a tiered approach to intervention.
Programming Focus	<ul style="list-style-type: none"> ▶ 2 boards focused on differentiation through depth, breadth, and/or pace to address students' differing learning needs and styles ▶ 1 board had a heavy focus on developing social skills and alternative programming, and some integration in regular classrooms.
Key Programming Strategies	<ul style="list-style-type: none"> ▶ Programming strategies are tier dependent in each board Strategies may include: differentiation, targeted instruction, IEP, curriculum extensions, specialized instruction, intensive support)
Class Size	<ul style="list-style-type: none"> ▶ 2 boards served maximum 23 students per class ▶ 1 board served 8 students per class
Self-Contained Placement Status & Enrolment	<ul style="list-style-type: none"> ▶ OCDSB – Served Grades 1-4, housed in 1 school with 1 class, currently 11 students ▶ PDSB – Served Grades 1-4, housed in 2 schools with 1 class each, currently <40 students ▶ TDSB – Previously served Grades 1-3, housed in 1 school with 1 class, involved 4 students ▶ 3 boards noted a declining trend in student enrolment over the years, attributing this to factors such as improved school supports, success of tiered intervention approach, French Immersion program, parental choice, etc.
Staffing	<ul style="list-style-type: none"> ▶ 3 boards had classroom teachers with minimum Spec. Ed. Part 1 AQ ▶ 3 boards had Resource Support staff with Spec. Ed. Specialist AQ ▶ 2 boards had 1 EA (in 1 board-fulltime, in 1 board if required) ▶ 1 board had an Early Learning Team – composed of Learning Support Services staff that provided support to Kindergarten students, through a referral process.
Professional Development	<ul style="list-style-type: none"> ▶ 2 boards provided professional development as needed ▶ 1 board focused on Quality Program Indicators and a Learning Support Teacher Resource Guide
Technology	<ul style="list-style-type: none"> ▶ 3 boards provided technology to students as required
Transportation	<ul style="list-style-type: none"> ▶ 3 boards provided transportation for eligible students residing beyond school boundaries



HIGHLIGHTS OF REVIEW FINDINGS

The purpose of the Special Education Programs and Services Review–Phase III-A was to gain a better understanding of evidence-informed best practices for assessment, identification, and placement of students in primary grades; HDSB’s elementary gifted student population; and practices among neighbouring school boards. As such, the review set out to: (1) explore the research literature regarding the strengths, challenges and best practices with assessment, identification and placement of gifted children in the primary grades; (2) develop a comprehensive picture of HDSB’s gifted elementary students, in both Resource Support and Self-Contained placements; (3) understand the perceptions and levels of satisfaction of parents of primary gifted students, in both placement types; and (4) examine the practices of other Ontario school boards regarding assessment, identification and placement of primary gifted students. Following is a summary of the key findings established throughout the review.

Research Literature Highlights

It is clear in the literature that development and learning proceeds at varying rates among young children, and that these variances, combined with environmental factors, influence a child’s functioning in all domains. Similarly, the developmental theory of giftedness attests that intelligence, and therefore giftedness, is also multidimensional and dynamic in nature. Therefore, it is not surprising that early childhood experts hold a range of perspectives regarding the value and utility of assessment results for the identification of young gifted children. Although the suggested optimal age range for assessment varies among experts, they tend to concur that early assessment results can provide information about a child’s current functioning, and can be used to inform early intervention plans. However, there is agreed upon caution regarding how accurate, reliable, and meaningful these early results will be for medium and long-term predictions of intelligence.

Increasingly, researchers are finding that cognitive ability consists of skills that develop and change over a lifetime; and that children vary in the trajectory of their growth in these skills. Consequently, defining the level of stability and predictive validity of assessment results has been challenging. Research evidence throughout the literature notes that standardized assessments are less accurate, valid, and reliable for young children, when compared to older children; and that the older the child is when tested, the stronger the relationship is with later IQ. In addition, studies have shown that early identification of giftedness may not predict future high performance outcomes. As a result, authorities in the gifted field suggest that educators search annually for students with high ability and potential; and that assessment be an ongoing process with re-evaluation occurring every 1 – 4 years, or when new placement decisions are to be made.

Overall, the research strongly supports comprehensive assessment procedures when used for the purpose of gifted identification and subsequent program placement of children. An ongoing, multidimensional assessment approach, using a variety of psychometrically sound information sources in different contexts, is considered the best practice, gold standard for identification. Research evidence has established that nomination processes, universal screening procedures, and cognitive and nonverbal ability tests each have inherent strengths and limitations. However, by using a combination of these methods and acquiring both quantitative and qualitative information, education professionals can work to cast a wide net for identifying students; assess a range of characteristics that measure beyond general

intelligence; obtain a thorough understanding of a child's strengths and challenges; and maximize fairness and diversity in identification. As the modern conceptualization of giftedness continues to gain momentum, increased support towards a multifaceted assessment process for gifted identification will ensue; thus leading to assessment procedures that capture diverse learning styles and abilities, minimize bias, and ensure equal access for all students.

Student Enrolment

Seven-year enrolment trends among gifted students demonstrated:

- ▶ A decline in primary enrolment by 49%.
- ▶ On average, 2/3 of elementary students were male, and over half of students attended schools in the East.
- ▶ There are currently 262 students in the primary Gifted program, of which 158 (60%) are in Self-Contained classes and 52 (40%) are receiving Resource Support in the regular classroom.

Student Achievement

EQAO Assessment Results for Grade 3 and Grade 6

Over four years:

Almost all gifted students in Grade 3 and Grade 6 achieved the provincial standard in Reading, Writing, and Mathematics assessments.

Grade 3 assessment results among gifted students demonstrated:

- ▶ Level 4 achievement among students in Self-Contained classes was comparable with students receiving Resource Support, across all subject areas (with a few exceptions).
- ▶ An increase in Level 4 achievement in Reading and Mathematics among students in both placements.
- ▶ Relative stability in Level 4 achievement in Writing among students in both placements.

Report Card Results

Over five years:

Almost all gifted elementary students achieved Levels 3 or 4 on their final report card in the Reading, Writing, and Number Sense and Numeration curriculum strands.

Primary report card results among gifted students demonstrated:

- ▶ Over 3 years – a larger proportion of students receiving Resource Support achieved Level 4 in all subject areas, when compared to students in Self-Contained classes.
- ▶ Over 5 years, Level 4 achievement:
 - ▶ was relative stable in all subject areas, among students receiving Resource Support.
 - ▶ decreased in all subject areas, among students in Self-Contained classes.

Student Learning Skills and Work Habits

On average, over five years, final report card results for six learning skills and work habits demonstrated:

- ▶ Almost all gifted elementary students achieved *Good* or *Excellent*.
- ▶ *Excellent* achievement was comparable among students in both types of placements.
- ▶ Larger proportions of intermediate students achieved *Excellent* across all learning skills and work habits, when compared to primary students, in both placements.

Student Learning Attitudes

On average over four years, EQAO questionnaire results for Grade 3 and Grade 6 demonstrated:

- ▶ The majority of gifted students in both grades reported doing their best *most of the time* during in-class activities in Reading (average 75%), Writing (average 70%), and Mathematics (average 84%).
- ▶ Average results were similar in each subject area, among students in both placements.

Parent Satisfaction and Perceptions

Results of the Parent Survey distributed in the 2016-2017 school year demonstrated various differences among respondents' levels of satisfaction and perceived improvement in their child's skills.

- ▶ Compared to parents with children receiving Resource Support, parents of elementary and middle school students in Self-Contained classes reported higher levels of satisfaction with their child's progress at school, and various elements of the Special Education program.
- ▶ In elementary schools, parent respondents with students in Self-Contained classes reported slightly greater improvement in their child's social-emotional skills
- ▶ In elementary schools, parent respondents with students in Self-Contained classes reported similar levels of improvement in their child's academic skills, when compared to parents of students receiving Resource Support.

Environmental Scan

The environmental scan of several Ontario school boards yielded three boards for which comparisons could be made with primary gifted assessment, identification and placement practices. Similarities in practice, among the HDSB and the three neighbouring school boards, included the use of multiple sources to inform student profiles, referral and/or nomination procedures, assessment methods, and intervention approaches. Variations in practices involved the use of rating scales, assessment criteria, universal screening procedures, program inclusion criteria, and class size. Differences in student enrolment numbers for the primary Self-Contained program were also noted between HDSB and the three other boards.



KEY CONSIDERATIONS FOR PRIMARY GIFTED IDENTIFICATION, PROGRAMMING and SUPPORT

Phase II of the Special Education Programs and Services Review identified various strengths and challenges with the gifted referral, identification and placement pathways. Among the recommendations provided in Phase II, Phase III-A was largely prompted by Recommendation #6 – to “*Support primary students who demonstrate characteristics of Giftedness in their home schools,*” (Gray, 2018, p. 41). Findings from Phase III-A also identified a variety of strengths, challenges and best practices relating to gifted assessment and identification procedures used with young children. Enrolment trends, and achievement and social-behavioural outcomes among elementary students in the HDSB were examined; and parent satisfaction levels with the Gifted program were reviewed. The Special Education Programs and Services Review Steering Committee regarded the following key findings, from Phase II and Phase III, to be important considerations for primary Gifted identification, programming and support within the Halton District School Board.

1. Research-informed expert theories emphasizing the importance of early recognition, timely identification, and early intervention through quality programming.
2. The established impact that developmental variabilities, environmental factors, and the dynamic nature of intelligence have on the development and functioning of young children.
3. Varying expert opinions regarding the optimal age for assessing children for giftedness.
4. Evidence demonstrating the instability and low predictive validity of assessment results among young children.
5. Low success rates (average 36%) of the Senior Kindergarten and primary gifted screening process over the past seven years in the HDSB (Phase II).
6. 60% of students (158) in the primary Gifted program (Grade 1-4) are currently in a Self-Contained placement, and 40% (104 students) are receiving Resource Support in the regular classroom.
7. Declining enrolment of 49% among primary students (Grades 1-3) in the Gifted program, over the past 7 years.
8. High achievement outcomes, learning attitudes, and skills and work habits among all gifted elementary students, regardless of placement type, over the years.
9. Learning outcomes for achievement, attitudes, and skills and work habits demonstrating that gifted students receiving Resource Support in the regular classroom achieved just as well, and in some instances better, than gifted students in Self-Contained classes over the years.
10. Higher levels of satisfaction with school and program elements, and higher levels of reported improvement in their child's social-emotional skills, among parents of gifted elementary students in a Self-Contained placement, when compared to parents of students receiving Resource Support.
11. Strong parental support for primary Self-Contained placements, based on their children's increased levels of engagement in learning, enjoyment of school, and sense of belonging (Phase II).
12. Concerns among school and support staff regarding staff time and cost for assessments following the primary gifted nomination process, validity and reliability of assessment results among primary aged students, and inequities in practice between exceptionalities (Phase II).
13. Concerns among parents regarding inconsistent primary gifted screening practices within and between schools. (Phase II)
14. Strong beliefs among school staff that the needs of the majority of primary students with enhanced learning profiles can be addressed effectively in the regular classroom (Phase II).
15. Strong support throughout the literature for a multidimensional assessment approach, using a variety of sound information sources, in different contexts.
16. Few Ontario school boards offer a primary Gifted program.
17. Primary Self-Contained placements are not available for all exceptionalities.

References

- Benson, N. F., & Kranzler, J. K. (2017). Another look at the construct validity of the Gifted Rating Scales: Preschool/Kindergarten and School Forms. *Journal of Psychoeducational Assessment*, *May*, 1-16.
- Cao, T. H., Jung, J. Y., & Lee, J. (2017). Assessment in gifted education: A review of the literature from 2005 to 2016. *Journal of Advanced Academics* 28(3), 163-203.
- Card D., & Giuliano, L. (2016). Universal screening increases the representation of low-income and minority students in gifted education. *Proceedings of the National Academy of Sciences*, 113(48), 13678-13683.
- Carman, C. A., & Taylor, D. K. (2010). Socioeconomic status effects on using the Naglieri Nonverbal Ability Test (NNAT) to identify the gifted/talented. *Gifted Child Quarterly*, 54, 75-84.
- Carman, C. A., Walther, P., & Bartsch, R.A. (2018). Using the Cognitive Abilities Test (CogAT) 7 Nonverbal Battery to identify the gifted/talented: An investigation of demographic effects and norming plans. *Gifted Child Quarterly* 62(2), 193-209.
- Ellingsen, K. M. (2016). Standardized assessment of cognitive development: Instruments and issues. In A. Garro, (Ed.), *Early childhood assessment in school and clinical child psychology* (pp. 25–49). New York, NY: Springer New York.
- Gottfried, A. W., Gottfried, A. E., & Guerin, D. W. (2009). Issues in early prediction and identification of intellectual giftedness. In F. D. Horowitz, R. F. Subotnik, & D. J. Matthews (Eds.), *The development of giftedness and talent across the life span* (pp. 43-56). Washington, DC, US: American Psychological Association.
- Gray, E (2018). *Special Education Programs and Services Review - Phase II: Review of Elementary Special Education Referral, Identification and Placement Pathways for Students identified with Autism, Learning Disabilities, and Giftedness*. Unpublished presentation. Burlington, Ontario: Halton District School Board.
- Gubbels, J. (2016). *The dynamics of giftedness in the upper primary grades* (Doctoral Dissertation). Retrieved from <https://www.nro.nl/wp-content/uploads/2016/08/The-dynamics-of-giftedness-in-the-upper-primary-grades-Joyce-Gubbels.pdf>
- Guddemi, M., & Case, B. J. (2004). *Assessing young children*. Pearson Education. Assessment Report. Pearson Inc., San Antonio, TX. Retrieved from: http://images.pearsonassessments.com/images/tmrs/tmrs_rg/AssessingYoungChildren.pdf
- Halton District School Board. (2017). *Special Education Plan 2018-2019*. Burlington: Author, Retrieved from <https://hdsb.ca/learning-and-resources/Pages/Special%20Education%20Programs%20and%20Placements/Special-Education-Plan.aspx>
- Hemphill, C. (2010). The Pitfalls in identifying a gifted child. *New York Times*. Retrieved from <https://roomfordebate.blogs.nytimes.com/2010/07/04/the-pitfalls-in-identifying-a-gifted-child/>
- Houghton Mifflin Harcourt. (2013). *Cognitive Abilities Test Form 7: A short guide for teachers*. Retrieved from <http://www.aacs.org/wp-content/uploads/2012/10/CogAT-A-Short-Guide-for-Teachers.pdf>

- Jiban, D. (2013). *Early childhood assessment: Implementing effective practice – A research-based guide to inform assessment planning in the early grades*. Northwest Evaluation Association. Retrieved from <http://info.nwea.org/rs/nwea/images/EarlyChildhoodAssessment-ImplementingEffectivePractice.pdf>
- Johnsen, S. K. (2009). Best practices for identifying gifted students. *Principal, May/June*, 9-14.
- Johnsen, S. K. (2012). Best practices in the identification of gifted and talented students. *Gifted Education Communicator*, 43(2), 9-14. Retrieved from <http://www.giftededucationcommunicator.com/wp-content/uploads/2013/03/Identifying-Gifted-Learners.pdf>
- Kaya, F., Juntune, J., & Stough, L. (2015). Intelligence and Its Relationship to Achievement. *Elementary Education Online*, 14(3), 1060-1078. Retrieved from https://www.researchgate.net/publication/281764945_Intelligence_and_Its_Relationship_to_Achievement
- Karadağ, F., Karabey, B., & Pfeiffer, S. (2016). Identifying gifted preschoolers in Turkey: The reliability and validity of the Turkish-translated version of the GRS-Preschool/Kindergarten Form. *Journal of Education and Training Studies*, 4(10), 8–16.
- Kettler, T., Oveross, M.E., & Bishop, J.C. (2017). Gifted Education in Preschool: Perceived Barriers and Benefits of Program Development, *Journal of Research in Childhood Education*, 31(2), 342-359.
- Koshy, V & Pascal, C. (2011). Nurturing the Young Shoots of Talent: Using Action Research for Exploration and Theory Building. *European Early Childhood Education Research Journal*, 19(4), 433-450.
- Lakin, J. (2015). The Essentials: Using ability tests in gifted and talented identification programs. *Cognitively Speaking*, 1-6. Retrieved from http://www.auburn.edu/~jml0035/index_files/CS_Fall15_essentials.pdf
- Lakin, J., & Driver, V. (2016). Universal screening in gifted and talented identification: Implementation and overcoming challenges. *Cognitively Speaking*, 1-4. Retrieved from http://www.auburn.edu/~jml0035/index_files/CS_Nov16_screening.pdf
- Lakin, J., & Driver, V. (2017). Using CogAT score profiles to differentiate instruction. *Cognitively Speaking*, 1-5. Retrieved from http://www.gcisd-k12.org/UserFiles/Servers/Server_96229/File/Departments/Assesment/CogAT/CogAT_Cognitively_Speaking_Winter_2017_Issue.pdf
- Lakin, J., & Lohman, D. F. (2011). The predictive accuracy of verbal, quantitative, and nonverbal reasoning tests: consequences for talent identification and program diversity. *Journal for the Education of the Gifted*, 34, 595-623.
- Learning Disabilities Association of Ontario. (n.d.). *Recommended practices for assessment, diagnosis and documentation of learning disabilities*. Retrieved from <http://www.ldao.ca/wp-content/uploads/LDAO-Recommended-Practices-for-Assessment-Diagnosis-Documentation-of-LDs1.pdf>

- Lohman, D.F. (2012). *Cognitive Abilities Test Form 7 research and development guide*. Riverside Publishing Company, Illinois.
- Lohman, D.F. (2014). *Cognitive Abilities Test Form 7 product guide – version 4*. Riverside Publishing Company, Illinois.
- Lohman, D. F., & Korb, K. A. (2006). Gifted today but not tomorrow? Longitudinal changes in ability and achievement during elementary school. *Journal for the Education of the Gifted*, 29, 451-484.
- Love, A., & Favaro, P. (2017). *Halton District School Board Special Education Review – Key Findings*. Unpublished presentation. Burlington, Ontario: Halton District School Board.
- Lubinski D. (2016). From Terman to today: a century of findings on intellectual precocity. *Review of Educational Research*, 86, 900–944.
- Makel, M.C., Kell, H.J., Lubinski, D., Putallaz, M., & Benbow, C.P. (2016). When lightning strikes twice: Profoundly gifted, profoundly accomplished. *Psychological Science*, 27, 1004-1018.
- McBee, M. T., Peters, S. J., & Miller, E. M. (2016). The impact of nominations on gifted program identification: A psychometric analysis. *Gifted Child Quarterly*, 60, 258–278.
- McCauley, L. (n.d.). *The developmental assessment of young children – a practical and theoretical view*. Retrieved from <http://www.priory.com/psych/assessyoung.htm>
- McClain, M. C., & Pfeiffer, S. (2012). Identification of gifted students in the United States today: A look at state definitions, policies, and practices. *Journal of Applied School Psychology*, 28, 59-88.
- Miles, S., Fulbrook, P., & Mainwaring-Mägi, D. (2016). Evaluation of standardized instruments for use in universal screening of very early school-age children: Suitability, technical adequacy, and usability. *Journal of Psychoeducational Assessment*, 36(2), 1-21.
- Moon, T. R. (2010). The Pitfalls in Identifying a Gifted Child. *New York Times*. Retrieved from <https://roomfordebate.blogs.nytimes.com/2010/07/04/the-pitfalls-in-identifying-a-gifted-child/>
- National Association for Gifted Children. (2008). *The role of assessments in the identification of gifted students*. Washington, DC: Author. <http://www.nagc.org/sites/default/files/Position%20Statement/Assessment%20Position%20Statement.pdf>
- National Association for Gifted Children. (2010). *Use of the WISC-IV for gifted identification*. Washington, DC: Author. <http://www.nagc.org/sites/default/files/Position%20Statement/Use%20of%20WISC-IV%20%28rev%203-2010%29.pdf>
- National Association for Gifted Children. (2013). *State of the nation in gifted education: Work yet to be done*. Washington, DC: Author. Retrieved from <http://www.nagc.org/sites/default/files/Advocacy/State%20of%20the%20Nation.pdf>
- National Association for Gifted Children. (n.d.). *Identification*. Washington, DC: Author. Retrieved from <https://www.nagc.org/resources-publications/gifted-education-practices/identification>
- National Association for Gifted Children. (n.d.). *Tests and assessments*. Washington, DC: Author. Retrieved from <https://www.nagc.org/resources-publications/gifted-education-practices/identification/tests-assessments>

- National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Retrieved from <https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/PSDAP.pdf>
- National Research Council. (2008). *Early Childhood Assessment: Why, What, and How?* Snow, C. E., and Van Hemel S. B. (Eds.) Washington, DC. The National Academies Press.
- Nelson. (2017). *CCAT 7: Canadian Cognitive Abilities Test (CCAT 7) for grades K-12*. Retrieved from http://www.nelson.com/assessment/pdf/CCAT7_Flyer_2017.pdf
- Nelson. (n.d.). *Getting valid results from your CCAT administration* [Webinar]. Retrieved from <http://www.nelson.com/assessment/classroom-CCAT7.html>
- Nisbett, R. E. (2009). *Intelligence and how to get it: Why schools and cultures count*. New York, NY: Norton.
- Nisbett, R. E., Aronson, J., Blair, C., Dickens, W., Flynn, J., Halpern, D. F., & Turkheimer, E. (2012). Intelligence: New Findings and Theoretical Developments. *American Psychologist*, 67, 130-159.
- NSW Association for Gifted and Talented Children. (2007). *Frequently asked questions about assessing giftedness*, Retrieved from <http://www.thinkingahead.com.au/wp-content/uploads/FAQs-about-assessing-giftedness1.pdf>
- O'Connor, M., Fleischmann, C., Kenner, E., McCobin, A., & McGoey, K. E. (2017). Early childhood gifted assessment and intervention practices. *NASP Communicate*, 46(3), 18-19.
- Parekh, G., Brown, R. S., & Robson, K. (2018). The social construction of giftedness: The intersectional relationship between whiteness, economic privilege, and the identification of gifted. *Canadian Journal of Disability Studies*, 7(2), 1-32.
- Pfeiffer, S. I. (2011). Current perspectives on the identification and assessment of gifted students. *Journal of Psychoeducational Assessment*, 30(1), 3-9.
- Pfeiffer, S. I. (2013). Lessons learned from working with high-ability students. *Gifted Education International*, 29(1), 86-97. Retrieved from https://www.researchgate.net/publication/258138021_Lessons_learned_from_working_with_high-ability_students
- Pfeiffer S. I., & Petscher, Y. (2008). Identifying young gifted children using the Gifted Rating Scales-Preschool/Kindergarten form. *Gifted Child Quarterly*, 52, 19–29.
- Pfeiffer, S. I., Petscher, Y., & Kumtepe, A. (2008). The Gifted Rating Scales-School Form: A validation study based on age, gender, and race. *Roeper Review*, 30, 140–146.
- Pfeiffer, S. I., & Shaughnessy, M. F. (2013). A reflective conversation with Steven Pfeiffer: Serving the gifted. *Gifted Education International*, 31, 25-33.
- Porath, M. (2011). School Readiness for Gifted Children: Considering the Issues. *Exceptionality Education International*, 21(2), 16–28.
- Richardson, K. & Norgate, S. H. (2015). Does IQ Really Predict Job Performance? *Applied Developmental Science*, 19(3), 153–169.

- Renzulli, J. S., Siegle, F., Reis, S. M., & Gavin, M. K. (2009). An investigation of the reliability and factor structure of four new scales for rating the behavioral characteristics of superior students. *Journal of Advanced Academics, 21*, 84-108.
- Şahin, F. (2016). Investigating the competence of classroom teachers in terms of nominating the students with high creativity and gender-biased decisions. *International Journal of Progressive Education, 12*(3), 110-120.
- Saranlı, A. G. (2017). A Different Perspective to the Early Intervention Applications during Preschool Period: Early Enrichment for Gifted Children. *Education and Science, 42*, 343-359.
- Silverman, L. K. (2018). Assessment of giftedness. In S. J. Pfeiffer (Ed.), *Handbook of giftedness in children: Psychoeducational theory, research, and best practices, Second Edition*. Springer Science. (pp. 183-207).
- Silverman, L. (n.d.). *Assessment of gifted children*. Malone Family Foundation. Retrieved from http://malonefamilyfoundation.org/whatisgifted_assessing2.html
- Slocumb, P. D., & Olenchak, F. R. (2006). *Equity in gifted education: A state initiative*. Austin, TX: Texas Education Agency. Retrieved from http://www.gtequity.org/docs/equity_in_ge.pdf
- Sternberg, R. J., & Kaufman, S. B. (2018). Theories and conceptions of giftedness. In Pfeiffer, S. J. (Ed.), *Handbook of giftedness in children: Psychoeducational theory, research, and best practices, Second Edition*. Springer Science. (pp. 29-48).
- Subotnik, R. F., Olszewski-Kubilius, P. & Worrell, F.C. (2011). Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science. *Psychological Science in the Public Interest, 12*(1), 3-54.
- Thompson, K. C., & Morris, R. J. (2018). Ethical and professional practice issues in the provision of educational services to gifted students. In S. J. Pfeiffer (Ed.), *Handbook of giftedness in children: Psychoeducational theory, research, and best practices, Second Edition*. Springer Science. (pp. 335-348).
- Valler, E. C., Burko, J. A., Pfeiffer, S., & Branagan, A. M. (2016). The test authors speak: Reporting on an author survey of the leading tests used in gifted assessment. *Journal of Psychoeducational Assessment, 35* (7), 695-708.
- Van Gaemert, L. (2105). *6 reasons not to give IQ tests to young children*. Gifted Guru. Retrieved from <http://www.giftedguru.com/6-reasons-not-to-give-iq-tests-to-young-children/>
- Wasserman, J. D. (2013). *An Evidence-based comparison of cognitive ability & intelligence tests in identification of gifted learners*. Distinguished Lecture Series. SMU Gifted Students Institute, Dallas/Plano, Texas. Retrieved from http://www.johndwasserman.com/index_htm_files/Wasserman%202013%20An%20evidence-based%20comparison%20of%20cognitive%20ability%20and%20intelligence%20tests%20in%20identification%20of%20gifted%20learners%20SMU%20Presentation%20Final.pdf
- Walsh, R., Kemp, C., Hodge, C., & Bowes, J. (2012). Searching for Evidence-Based Practice: A Review of the Research on Educational Interventions for Intellectually Gifted Children in the Early Childhood Years. *Journal for the Education of the Gifted, 35*(2), 103-128.

- Wilson, H. E. (2015). Patterns of play behaviors and learning center choices between high ability and typical children. *Journal of Advanced Academics*, 26(2), 143–164.
- Worrell, F. C. (2009). Myth 4: A single test score or indicator tells us all we need to know about giftedness. *The Gifted Child Quarterly*, 53, 242–244.
- Worrell, F. C., & Dixson, D. D. (2018). Recruiting and retaining underrepresented gifted students. In S. J. Pfeiffer (Ed.), *Handbook of giftedness in children: Psychoeducational theory, research, and best practices, Second Edition*. Springer Science. (pp. 209-226).
- Worrell, F. C., & Erwin, J. O. (2011). Best practices in identifying students for gifted and talented education programs. *Journal of Applied School Psychology*, 27, 319–340.
- Worrell, F. C., Subotnik, R. F., Olszewski-Kubilius, P., & Dixson, D. D. (2019). Gifted Students. *Annual Review of Psychology*, 70, 551-576.
- Wright, B.L., & Ford, D.Y. (2017). Untapped potential: Recognition of gifted in early childhood and what professionals need to know about students of color. *Gifted Child Today*, 40(2), 111-116.
- Wu, E. H. (2009). Options for identification and assessment of gifted and talented young children. *Hong Kong Journal of Early Childhood*. 8(1), 42-49.
- Wu, E. H. (2010). Screening and Identifying Gifted Children: What all Educators and Parents Should Know. *Gifted Education Press Quarterly*, 24(2), 2-6.
- Yang, Y. (n.d.). *Identification of young, gifted children: An analysis of instruments and recommendations for practice*. Unpublished manuscript, Educational Studies, Purdue University. Retrieved from http://www.geri.education.purdue.edu/PDF%20Files/yang_WCGTC_paper_mg7.pdf