

When Children Succeed: A Blueprint for Success in NB Schools

Final Report November 2020

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A common misconception, in regards to high-poverty schools is that the main issues at hand only extend to feeding and clothing children. Yes, these things are part of what we do, but it is the effect of “toxic-stress” from trauma/adverse childhood experiences, which pose far greater challenges. In a classroom, it may translate into difficulty with paying attention, trusting adults, forging positive peer interactions, self-regulation, impulsivity, working memory, and cognitive processes. Before our teachers can even attempt to get students to learn, we must first make them feel safe! [Principal]

The fall-out of adverse childhood experiences or trauma is the greatest challenge that we face when servicing the educational needs of a high-poverty neighbourhood, whose population is caught up in a cycle of generational trauma and mental health struggles. The only way that we can make a difference is to build capacity in students and their families, through a relationship of trust and acceptance. [Principal]

When Children Succeed is the result of the commitment of a group of community-minded business professionals in partnership with school district educators and the provincial government.¹ Recognizing the effects of poverty on children’s success in school, a demonstration project was proposed which would influence policy for funding of schools in high-poverty neighbourhoods. The partners agreed to invest \$4.5 million dollars over three years to provide 21 additional primary (K-2) teachers in Saint John’s seven priority neighbourhood schools. Findings would inform the implementation of a funding formula which takes into consideration the costs associated with educating children affected by poverty. The closure of schools in March 2020 due to the Covid-19 pandemic and the uncertainty of how schooling would be structured in September forced the early completion of the initial research project. Thus, this final report is based on the experience of one-and-a-half years in the project, drawing on quantitative data from district assessments and qualitative data from interviews, questionnaires and surveys conducted with administrators, teachers and parents.

This report is divided into five sections. The first two sections provide a rationale and background for the project. The third section highlights quantitative data, focusing on the five initial goals of the project. (Additional statistical analyses, provided in reports completed by Derek Gaudet, external researcher, are found in Appendix 7.) The fourth section highlights the voices of teachers and administrators to

¹ The project is funded by *BCAPI* - Business and Community Anti-Poverty Initiative, *ASD-S* – Anglophone School District South, *EECD* – NB Department of Education and Early Childhood Development and the provincial government’s Social Inclusion Fund administered by *Living Saint John*.

describe the benefits of the project which may not be demonstrated through quantitative data. The final section summarizes key learnings and recommendations for implementation.

Section I. Rationale

Supporting schools in high-poverty neighbourhoods is based on the premise that poverty poses its own set of risk factors, requiring additional resources to provide equitable educational opportunities. A description of Canadian provinces' approach to funding education, and the effect of poverty in New Brunswick was prepared for BCAP by Dr. Steven Noble in 2016.² Key points are summarized as follows, with statistical information updated where possible:

- New Brunswick's per capita income lags behind the rest of Canada. NB is ranked 8th in Canada for GDP and per capita income, slightly ahead of Nova Scotia and PEI. (Updated Conference Board of Canada, 2016)³
- New Brunswick's performance on PISA (Programme for International Student Assessment) is consistently ranked below the Canadian average. Results for mathematics place NB 6th in Canada in a statistical grouping with 6 other provinces. NB ranked 9th of the provinces in science in a grouping with NL, PEI, and SK and last of the provinces in reading, in a statistical grouping with PEI and MB. Further, NB is over-represented by the number of students performing below Level 2, the skill-level deemed necessary to participate in a literate society, at 22%, the highest percentage in Canada. Of this group, 7% failed to meet even Level 1, again the highest percentage in Canada. (Updated PISA 2018)⁴
- New Brunswick has the second highest spending per pupil in Canada, \$14 768 per student, behind only Saskatchewan. (Updated Fraser Institute, 2020)⁵
- Provinces west of New Brunswick employ a differential funding model where barriers such as poverty, language, and disability are weighted and monies calculated accordingly.

Poverty is a particular area of concern for New Brunswick's schools with a child poverty rate of 21.7%, 4th highest of Canadian provinces. Child poverty is unevenly distributed throughout the province with concentrations in Campbellton, Bathurst and Saint John - all with rates above 30%. Further, inequities are clear in Saint John with Wards 2 and 3 (the 'north' and 'south' ends) experiencing rates of 42.7% and 47.8% respectively. Visible minority children in NB experience poverty at an alarming rate of 46.7%, nearly twice the national average.⁶ Particularly disturbing is the high rate among children of Arab

² Noble, Steven. (2016) *Supplementary report. Differential funding for New Brunswick schools: To equity from equality.*

³ <https://www.conferenceboard.ca/hcp/provincial/economy/income-per-capita.aspx>

⁴ https://www.cmec.ca/Publications/Lists/Publications/Attachments/396/PISA2018_PublicReport_EN.pdf

⁵ <https://www.fraserinstitute.org/sites/default/files/education-spending-in-public-schools-2020.pdf>

⁶ Human Development Council (2020). *New Brunswick's 2019 child poverty report card.* Saint John, NB.

descent at 80%, again almost twice the national average.⁷ Schools welcoming refugee children must help them overcome barriers due to poverty, as well as obstacles caused by an unfamiliar language and culture. We also cannot underestimate the traumatic effects on childhoods spent in war-torn countries and refugee camps – implications for mental and physical health which are outside the experience of established school support systems.

A closer examination of poverty rates in priority school catchment areas was undertaken by the Human Development Council⁸.

Socio-Demographic Profiles of Priority Schools

	Seaside Park	St. John the Baptist - King Edward	Prince Charles	Princess Elizabeth	Centennial	Hazen White - St. Francis	Glen Falls	Saint John (City)	Saint John (CMA)	ASD-S	NB
Proportion of Lone Parent Families Among Families With Children	44.2% 579	58.8% 289	65.9% 532	48.7% 364	55.9% 477	57.5% 89	46.5% 216	40.3% 4 325	31.8% 6 625	31.5% 8 660	30.9% 36 185
Median Household Income (After Tax)	\$49,170	\$31,519	\$28,505	\$40,305	\$32,976	\$23,199	\$43,031	\$46,795	\$55,847	\$53,967	\$52,553
Child Poverty Rate (Low Income Measure After-tax)	32.6% 450	65.9% 369	64.9% 738	49.8% 412	58.0% 567	94.2% 282	44.0% 220	33.6% 4 050	23.1% 5 695	24.0% 7 810	22.2% 29 250
No High School Diploma, Certificate or Degree	20.3% 1 272	21.1% 707	30.3% 1 523	19.9% 727	24.1% 1 116	47.4% 233	26.4% 569	19.4% 10 775	17.3% 17 810	18.4% 25 465	22.0% 136 745
Labour Force Participation Rate	62.8% 3 931	63.8% 2 140	56.1% 2 859	58.6% 2 136	57.1% 2 644	34.5% 170	56.0% 1 205	61.6% 34 150	62.9% 64 945	62.1% 85 920	61.5% 381 790
Movers (last 5 years)	35.7% 7 307	62.9% 3 832	53.8% 5 552	45.6% 4 319	49.4% 5 497	56.6% 671	30.6% 2 495	39.2% 24 355	32.6% 38 200	31.5% 49 360	30.9% 215 325

Source: Statistics Canada, 2016 Census of Population.

It can be seen that Seaside Park and to some extent Princess Elizabeth and Glen Falls, draw from slightly more diverse neighbourhoods than the other priority schools. However, it should be noted that Seaside Park and Princess Elizabeth offer French Immersion with children facing barriers due to poverty often over-represented in the English stream. Of particular note for all priority schools is the child poverty rate which exceeds the provincial average by 10 – 70 % points.

Similar measures are used in Ontario to identify schools qualifying for additional monies due to demographics. According to the *2019-20 Education Funding: A Guide to the Grant for Students' Needs*

The demographic allocation is based on social and economic indicators that signal a higher risk of academic difficulty for students. The indicators are low household income, low parental education, one-parent household and recent arrival in Canada. This allocation is distributed to boards based on the ranking of each of their schools on these measures, and a weighting of the measures themselves. Boards can use this funding for initiatives such as breakfast programs, homework clubs, reading recovery and independent supports.⁹

Toronto District School Board (TDSB) ranks its schools on a Learning Opportunities Index (LOI), an index it has used in one form or another for over 50 years. It is evaluated and revised periodically as new data and research comes to light. The current variables are: median family income, percentage of low income families, percentage of families receiving social assistance, adults with low education, adults with university degrees, and single-parent families. *The LOI measures relative need and compares all schools on exactly the same set of data collected in a consistent, reliable, and objective manner. The LOI removes the subjectivity that may shape perceptions of individual school needs.¹⁰* The LOI is used to identify children who require increased access to resources at school due to barriers in their homes and neighbourhoods.

The TDSB recognizes:

...that students face varying degrees of challenge which can impact their opportunity to achieve high educational outcomes. Educational research has demonstrated that children from lower income families face more significant barriers in achieving high educational outcomes...The LOI will assist with steering additional resources to the schools serving students who face greater challenges.¹¹

Further to the provincial and board differential funding for high-poverty schools, the TDSB launched the *Model Schools for Inner Cities* in 2006. Starting with three schools, the program expanded to 150 schools as of 2018, serving over 56,000 students. The program was a response to address *the impact of poverty*

⁹ Ministry of Education, Ontario. *2019-20 Education Funding: A Guide to the Grant for Students' Needs*. <http://www.edu.gov.on.ca/eng/funding/1920/GSNGuide2019-20.pdf>, p. 9

¹⁰ Toronto District School Board (2020). *The 2020 Learning Opportunities Index: Questions and Answers*, <https://www.tdsb.on.ca/Portals/research/docs/LOI2020.pdf>, p. 2.

¹¹ Ibid, p. 2

on student outcomes and the issue of achievement gaps experienced by historically marginalized groups.¹² Recognizing that the challenge is multi-faceted the TDSB initiative is guided by five principles:

1. Innovation in teaching and learning
2. Support services to meet students' physical, social and emotional needs
3. School as heart of the community
4. Research, review and evaluation of students and programs
5. Commitment to share successful practices

(Further information on TDSB's Model Schools for Inner Cities may be found on the Board's website at: <https://www.tdsb.on.ca/Community/Model-Schools-for-Inner-Cities.>)

Similar principles were seen to be necessary in the *When Children Succeed* project as the first year unfolded, recognizing the need for professional development support, parent engagement, research and data collection, and facilitating the sharing of effective strategies.

It is beyond the scope of this report to establish the higher costs of education due to poverty. However, when reviewing funding formulas used in BC, AB, MB and ON, Noble (2016) specifically identified low socio-economic status as a contributing risk factor. When one considers the advantages of growing up in an economically stable home it is easy to contrast the experiences of children living in poverty. In our Saint John context, it clearly requires more resources to support a child from north and south Saint John, than in the suburbs of the Kennebecasis Valley.

I have no other frame of reference other than my experience for the past 34 years in an inner-city school. I have taught and been an administrator at Prince Charles, Centennial and Hazen-White/St. Francis Schools. I have found my experience to be both equally rewarding and challenging. The needs are always present and ever-changing. They can range from the simple to complex. Some include - family issues that impact attendance and school performance, food security issues, trauma - previous or ongoing, single parent families, grandparents raising grandchildren, chronic bedbugs/head lice, lack of preschool experiences and readiness skills, family history of mistrust/negative school experiences, clothing issues - rare to see snowpants, boots that don't leak or mittens, no homework support, older siblings looking after younger ones, no home involvement in school ... the list is endless. [Principal]

In interviews, principals and teachers raised a number of topics related to the effects of poverty in their schools. It is important to realize that beyond the immediate effects of lacking basic necessities is the stress caused by instability and uncertainty in the family unit. It can be equated with living in trauma, resulting in far-reaching physical, emotional, mental and cognitive effects. Yet, it is unfair to describe poverty in stereotypes, as indeed the face of poverty is as diverse as any group in society. Families may

¹² Yau, M., Archer, B. and Romard, R. (2018). *Model Schools for Inner Cities: A 10-Year Overview*, Research Today, (10) 1, np. <https://www.tdsb.on.ca/Portals/research/docs/reports/ResearchTodayMSIC10yearsFINAL14Mar18.pdf>.

live in poverty due to short-term unemployment, chronic intergenerational poverty with reliance on social assistance, low-skill and low-wage employment, or language/cultural barriers. No matter the cause, the following were identified by school staff as constraints placed on families when economic and educational attainments are limited.

Physical needs	Food, clothing and housing insecurity affecting health and well-being; difficulty accessing medical, dental and vision care
Early childhood experiences	Difficulty engaging in pre-school and school activities, low levels of oral language and literacy, limited social experiences
Goals and aspirations	Lack of role models for graduation and higher education enrollment, school attendance and engagement issues
Community environment	Exposure to higher-crime rates
Parenting support	Greater number of single-parent families, foster care, concern about basic parenting skills
Access to specialized services	Economic barriers to private services (e.g., counsellors, psychologists, speech therapists, tutors)

With these factors in mind, a funding formula that treats all children equally fails those children facing greater challenges.

A sample grade-level profile from one school described 14/20 kindergarten children as having severe needs:

3 with diagnosed Autism (1 with toileting and dressing needs, 1 exhibiting aggressive behaviours, 2 non-verbal and 1 with language delays)

1 with a medical condition requiring monitoring of physical symptoms

1 with toileting needs

2 with classroom behaviour plans to address aggressive and flight-risk behaviours

7 EAL students

In addition, half of the class is chronically absent or tardy resulting in loss of instructional time.

The principal described the majority of the school’s population as having experienced trauma, ranging from environmental factors to neglect, abuse, foster care, PTSD, etc., and most of the students’ families are supported by Social Development.

The impact of poverty on classroom composition results in schools and the district overwhelmed by the needs in Saint John's priority neighbourhoods. Although the district attempts to provide additional support, the needs in these schools consume any little flexibility the district may have. New Brunswick ranks second in Canada for per pupil spending; the issue is not how much money we spend, but how we spend it. Noble (2016)¹³ summarized the false assumptions in 'flat-funding per student' models as the mistaken belief that students from wealthy and poor families are the same, barriers can be addressed through overall resources, and equity and equality are the same thing.

Equality is about treating everyone the same, with the assumption that all students are identical and, if treated in a similar way, all students will have the same access. Equity is about treating each person according to the need(s) of that person in order to heighten the likelihood of similar outcomes. Educational equity means treating each student differently, not the same.

¹³ Noble, Steven. (2016) *Supplementary report. Differential funding for New Brunswick schools: To equity from equality*, p. 4.

Section II. Background

Saint John's five priority neighbourhoods were identified in 2006 using census data that showed markedly higher rates of overall and child poverty. The schools and the neighbourhoods they serve are:

Area of City	Schools	Priority Neighbourhoods
North	Centennial, Princess Elizabeth, Hazen-White St. Francis	Old North End, Crescent Valley
South	St. John the Baptist/King Edward, Prince Charles	South End, The Village
East	Glen Falls*	
West	Seaside Park	Lower West

While Glen Falls is not situated in a priority neighbourhood it draws from an area of concentrated poverty on Saint John's east side.

In the 2018-2019 school year, three teachers were added to each school with the exception of Glen Falls which received two. By adding the additional teachers, projected pupil-teacher ratios, based on September 2018 enrollments, ranged from a low of 1:8.3 to a high of 1:16 (two classes only). However, over the year, as students transferred in, more classes approached or surpassed the 1:16 ratio. This was the case in 3 schools: 1 school at Kindergarten (2 classes), 1 school at Grade 2 (2 classes) and 1 school at both Kindergarten (5 classes) and Grade 2 (3 classes, but an additional teacher added after Christmas to alleviate the situation). For 2019-2020, a different staffing model was followed.

- The schools were first staffed by the school district using the funding model established by EECB and the NBTF collective agreement.
- Additional teachers were added from the project funding so that each school would have a K-2 pupil-teacher ratio of 1:12. (This ratio was calculated for the total K-2 population, not by class or grade level.)
- Further consideration was given to each school based on the poverty level of the neighbourhood, the number of EAL and refugee students and the number of students requiring personalized learning/behaviour plans and/or identified by early intervention services. (See Appendix 2)

Based on this formula, schools received 1.5-4 more teachers for 2019-2020 than would have been provided in the district staffing model, resulting in pupil-teacher ratios of 1:9 – 1:12.

Schools chose a variety of models:

- single classes (small class with one teacher)
- classes which employed a team-teaching model (1 larger class taught by two teachers or two classes shared among three teachers)
- classes which shared an intervention teacher
- lead teacher for the school with responsibilities for student and parent engagement

Lowering pupil-teacher ratio teachers represents a considerable financial commitment; because of this, any policy decisions around teacher allocations deserve a careful evaluation and a weighing of costs and benefits. Indeed, the literature regarding class-size reductions is somewhat inconclusive with criticisms

raised as to the lack of randomness for students assigned to smaller classes, the degree of longitudinal study and the inability to control for such factors as teacher qualifications, instructional strategies and curriculum requirements, as well as the various definitions of what even constitutes a small class.

Literature reviews tend to point to only three significant studies:

- * Project STAR (Student/Teacher Achievement Ratio) in Tennessee, 1985
- * SAGE (Student Achievement Guarantee in Education) in Wisconsin, 1996
- * CSR (Class-Size Reduction) in California, 1996

Despite varying interpretations of the overall success, there is considerable agreement that the benefits of reduced class sizes are most evident for children from low-income or minority neighbourhoods during the early years of schooling.

Of particular significance for Saint John is the SAGE study as it targeted high-poverty neighbourhoods and included team-teaching situations as well as single small classes¹⁴. The initiative aimed to reduce the pupil/teacher ratio to 15:1 or less. The program ended after the 2017-2018 school year and was replaced by the Achievement Gap Reduction program. More flexibility was built into the program by allowing qualifying schools to implement any of the following options, or any combination of the three:

- 1) one-to-one tutoring provided by a licensed teacher;
- 2) instructional coaching for teachers provided by a licensed teacher; or,
- 3) maintaining 18:1 or 30:2 [team-teaching] classroom ratios and providing professional development on small group instruction.

The longevity of the program is a testament to its success and it is now an integral part of Wisconsin's education policy. Further information can be found on the Wisconsin Department of Education's website - <https://dpi.wi.gov/sage>. Indeed, a recent report in the *Milwaukee Journal Sentinel*¹⁵ described the long-term tracking and analysis of achievement data, quoting the lead researcher as saying,

If you're operating at the policy level and you say, 'Which policy makes the greatest possible payout for student achievement, particularly for children living in poverty?' It's going to be a class-size reduction. [Alex Molnar, director of publications, National Education Policy Center at the University of Colorado-Boulder].

A mandate of the Saint John project was to provide EECD with information related to the development and use of a differentiated funding formula. Additional work was required to establish the poverty rate of students within each school with a greater degree of specificity. The statistics recently supplied by the Human Development Council using school catchment information would have been employed in the distribution of resources for the 2020-21 school year. Categories include: proportion of lone parent families, median household income, prevalence of low income, no diploma/certificate/degree, transient

¹⁴ Meyer, Robert. (2015) *SAGE program evaluation final report*. VARC (Value-Added Research Center) University of Wisconsin-Madison. https://dpi.wi.gov/sites/default/files/imce/sage/pdf/sage_2015_evaluation.pdf

¹⁵ Zettel-Vandenhouten. (2019, Mar 7). Smaller class sizes in Wisconsin schools benefit low-income kids, students of color the most. *Milwaukee Journal Sentinel*. <https://www.jsonline.com/story/news/solutions/2019/03/07/small-class-sizes-low-income-kids-students-of-color-benefit-most/3018460002/>

households and labour force participation rates. We trust the foundational work of this project will inform the government's work in this area.

Section III. Project Goals: Oral Language, Literacy, Numeracy, Parent Engagement and Teacher Confidence

The project began with the intention of continuing funding for three years, making it possible to track children's progress from kindergarten – grade 2 with the goal of closing the achievement gap within that time frame. The appearance of COVID-19 disrupted the project but there were areas of growth within the first year-and-a-half. As well, early on in the project it became apparent that there were other components that would need to be addressed. The foundation for children's academic success is multi-dimensional and it takes time to weave the pieces together to close the gap. As class-size studies in the literature would concur – adding teachers is not sufficient without supportive practices in place. Improvements to the project's implementation plan were made along the way. These included the addition of:

- monthly meetings with administrators to share best practices
- addressing student absentee rates
- increased focus on parent engagement
- two days of professional development for teachers on early literacy and oral language
- hiring an external researcher for assistance with data analysis

Some issues encountered during project evaluation are systemic and require ongoing support to address, e.g., inconsistency in assessing and evaluating student achievement, and variation in literacy programs and instruction. Had the project continued, an emphasis would have been placed on early literacy instructional strategies as well as adjustments made to the collection and analysis of data.

1. Oral Language

In interviews with classroom teachers, oral language is continually mentioned as an area requiring ongoing support. Students have limited experiences and thus, often lack vocabulary and language structures necessary for success in school. Lower teacher-pupil ratios allow teachers to have more time to interact with individual students. On a teacher survey completed at the end of Year 1, 86% responded with Agree or Strongly Agree to the statement: *Compared to previous years, I spent more time in conversations with individuals and small-groups.*

Instructional strategies for teaching oral language, particularly vocabulary, received considerable focus during the course of the project. A Speech Language Therapist worked with teachers on methodology and resources, as well as provided information for families during school-wide literacy events. Two professional learning days were held focusing on oral language and early literacy.

Oral language was measured with a variety of assessments. Sentence recall tasks were administered to Kindergarten and Grade 1 students. The RAPT (*Renfrew Action Picture Test*) was administered to the Kindergarten to Grade 1 and Grade 1 to Grade 2 cohorts. Report card grades were analyzed for the same cohorts.

Summary of Oral Language Data

	Kindergarten (Project Year 1)	Grade 1 (Project Year 1)	K → Grade 1 (Project Year 1 → Year 2)	Gr 1 → Gr 2 (Project Year 1 → Year 2)
Sentence Recall Tasks (% within or above average range)	+ 8% (80% → 88%) Fall 2018 → June 2019	+ 4% (66% → 70%) Fall 2018 → June 2019		
RAPT Vocabulary (% within or above average range)			+ 8% (61% → 69%) Fall 2018 → Fall 2019	+ 29% (39% → 68%) Fall 2018 → Fall 2019
RAPT Grammar (% within or above average range)			No change (-2%) (65 → 63%) Fall 2018 → Fall 2019	+ 13% (48% → 61%) Fall 2018 → Fall 2019
Report Card - Speaking and Listening	Statistically significant growth over first year; narrowed achievement gap between non- priority and priority schools	Statistically significant growth over first year; narrowed achievement gap between non-priority and priority schools	Statistically significant growth over 1 ½ years; narrowed achievement gap between non-priority and priority schools	Statistically significant growth over 1 ½ years; closed achievement gap between non-priority and priority schools

Sentence Recall

Sentence recall tasks require students to listen to a sentence and repeat it back. It is an indication of vocabulary and grammatical structures within a student's control. Kindergarten students were assessed using the *Fluharty Preschool Speech and Language Test*. Grade 1 students were assessed using the *CELF-4 (Clinical Evaluation of Language Functions)*. Because these are norm-referenced tests, it is possible to compare scores to a standard based on a much larger population. The following results are based on students for whom both pre-and post-scores were available. Those identified as EAL, absences and transfers in and out were not calculated.

Repeating Sentences Subtest (Fluharty, 2nd edition)

	Within average performance October 2018	Within average performance May 2019
K 2018/2019	121/152 80%	133/152 88%

Recalling Sentences Subtest (CELF-4)

	Within average performance October 2018	Within average performance May 2019
Grade 1 2018/2019	80/122 66%	85/122 70%

Vocabulary and Grammar

The *Renfrew Action Picture Vocabulary Test* was administered to students to measure expressive vocabulary and use of grammatical structures. Kindergarten and Grade 1 students were assessed in the fall of the first year of the project and again in the fall of the second year of the project. Baseline data showed a prevalence of language deficits with just 55% of Kindergarten students and 32% of Grade 1 students performing within the expected ranges on both vocabulary and grammar.

Renfrew Action Picture Test

COHORT	Within or above average in vocab only	Within or above average in vocab only	Within or above average in grammar only	Within or above average in grammar only	Within or above average in BOTH vocab and grammar	Within or above average in BOTH vocab and grammar
	Fall 2018	Fall 2019	Fall 2018	Fall 2019	Fall 2018	Fall 2019
K → Gr 1 cohort	103/168 61% (K)	103/149 69% (Grade 1)	110/168 65% (K)	95/149 63% (Grade 1)	93/168 55% (K)	81/149 54% (Grade 1)
Gr 1 → Gr 2 cohort	69/174 39% (Grade 1)	104/152 68% (Grade 2)	84/174 48% (Grade 1)	93/152 61% (Grade 2)	55/174 32% (Grade 1)	83/152 55% (Grade 2)

The previous table of results indicates the rise in the percentage of students who are meeting the standards in the areas of vocabulary and grammar for their age level, across the seven schools. The strongest improvements were seen in the **Gr 1 → Gr 2 cohort** with a 29% increase in students with age-appropriate vocabulary scores and a 13% increase in students with age-appropriate grammar. This finding is particularly encouraging because it defies the typical pattern that is known to happen with children living in poverty. Not only is this group not falling further behind, they are showing marked improvement in their vocabulary skills during the first year of the project.

The **K → Gr 1 cohort** also made modest improvements in the number of students with age-appropriate vocabulary (8%); no improvements were noted for grammar performance at this time.

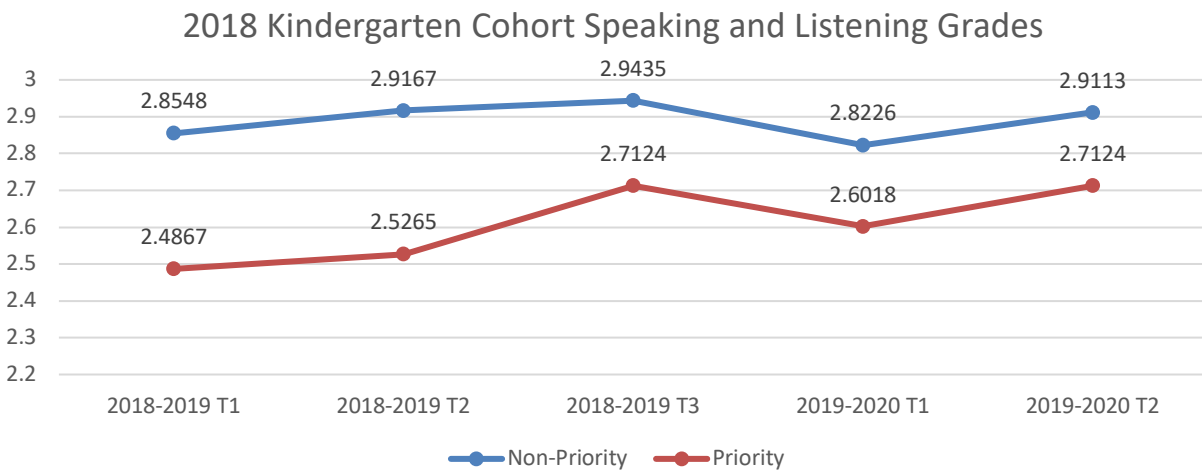
Report Cards

Report card grades in **oral language, reading and numeracy** for priority schools were compared to non-priority schools. Formal comparisons using statistical tests were made to describe any differences between the two groups at the reporting periods, as well as how the two groups changed over time. (See Appendix 7 for detailed analysis). Report card numerical grades are assigned on a 1-4+ scale with '2' indicating approaching standards and '3' indicating meeting standards. T1, T2 and T3 indicate three reporting periods over the year (November, March, and June).

Report card grades were analyzed only for the 2018-2019 Kindergarten and Grade 1 cohorts. Both the 2018-2019 Grade 2 and the 2019-2020 Kindergarten cohorts were not included in these analyses, as they were not followed over the entire year-and-a-half program.

The line graphs must be interpreted with some degree of caution. The summer break may indicate both the presence of learning loss and/or the tendency of teachers to grade the first report card of the year somewhat lower than previous end-of-year grades. These trends are usually apparent for both priority and non-priority schools. Also, due to the closure of schools in March, the final grade of 2019-2020 was assigned in June but based on assessments completed prior to the closure.

Kindergarten → Grade 1 cohort

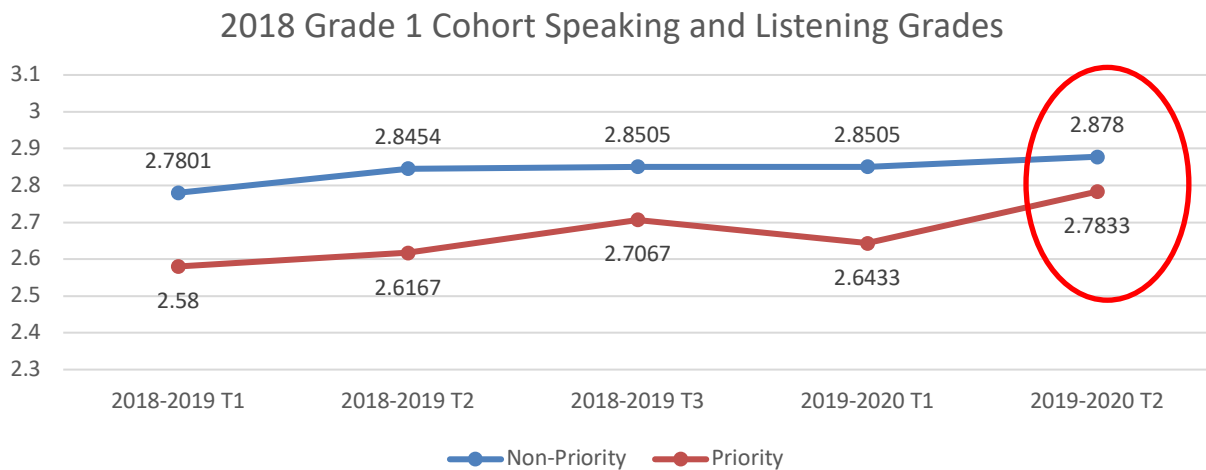


Key findings:

- Differences between the two groups were found at all reporting periods, suggesting that the achievement gap had not closed during the period of the project.
- Both groups showed growth during the Kindergarten year; priority school students made larger gains, as shown by the angle of the graph.

- Overall growth was shown to be statistically significant for priority school students, but not for non-priority school students, and the achievement gap was narrower between the two groups at the end of the program.

Grade 1 → Grade 2 cohort



Key findings:

- Differences between the two groups were found to be statistically significant for all reporting periods except the final T2. This is evidence that the achievement gap between the two groups had closed at this time (T2 of the 2019-2020 academic year).
- Priority school students showed statistically significant growth throughout Grade 1 and Grade 2, as well as over the course of the entire program.

Findings for oral language are encouraging on all measures. Students who entered kindergarten in the first year of the program made modest gains on sentence recall and vocabulary measures and demonstrated significant growth as measured by report cards. Students who entered Grade 1 showed the greatest gains in vocabulary and grammar and were able to close the gap between priority and non-priority school students by the time they were in Grade 2.

2. Literacy

Progress in literacy was measured by report cards (Reading and Viewing) and reading benchmarks.

Reading benchmarks are summarized by grade level as well as the K to 1 and 1 to 2 cohorts. Reading benchmarks are identified for each grade level (K-3) as the level of text a student should be able to read at various points in the year. Text level is defined on a gradient (A-Z) according to a levelling system developed by Irene Fountas and Gay Su Pinnell in the 1990s. Text complexity is defined by factors such as sentence length and complexity, number of high-frequency words, difficulty of vocabulary, degree of picture support and types of punctuation. Students must be able to read the text with 95% accuracy and demonstrate appropriate comprehension.

Summary of Literacy Data

	Kindergarten (Project Year 1)	Gr 1 (Project Year 1)	Gr 2 (Project Year 1)	K → Gr 1 (Project Year 1 → Year 2 cohort)	Gr 1 → Gr 2 (Project Year 1 → Year 2 cohort)
Reading Benchmarks (% meeting or exceeding benchmark)	<p>+ 10% compared to previous year * (53% → 63%)</p> <p>K 2018 priority schools compared to K 2019 priority schools on June benchmark</p> <p>District Average 64%</p>	<p>No change compared to previous year (56% → 57%)</p> <p>Gr 1 2018 priority schools compared to Gr 1 2019 priority schools on June benchmark</p> <p>District Average 66%</p>	<p>-4% Compared to previous year (62% → 58%)</p> <p>Gr 2 2018 priority schools compared to Gr 2 2019 priority schools on June benchmark</p> <p>District Average 72%</p>	<p>60% meeting December 2019 benchmark; average text level exceeds expectations</p>	<p>56% meeting December 2019 benchmark</p>
Report Card – Reading and Viewing	<p>Statistically significant growth in grades over the first year; achievement gap has closed between non-priority and priority schools</p>	<p>No change in grades over the first year; achievement gap has not closed between non-priority and priority schools</p>		<p>No change in grades over 1 ½ years; achievement gap has narrowed with decreasing grades in non-priority schools</p>	<p>No change in grades over 1 ½ years; achievement gap has not closed between non-priority and priority schools</p>

* There is some discrepancy as to whether Level B or C is the expected level for Kindergarten. While the overall percentage of students reading Level B or above increased by only 2 percentage points, the percentage reading at the upper-end of the range (Level C) increased by 10%.

Reading Benchmarks

The effect of the project on reading achievement was most evident in the kindergarten year with a higher percentage of students reading at the upper-end of the grade-level expectations. Of note, this percentage is equal to the district average.

Kindergarten	2018	2019	+/-
Priority School % at Grade Level	53% at Text Level C/C+ (77% at Text Level B/B+)	63% at Text Level C/C+ (79% at Text Level B/B+)	+ 10% (+ 2%)
District % at Grade Level	67% at Text level C/C+ (86% at Text Level B/B+)	64% at Text Level C/C+ (85% at Text Level B/B+)	- 3% (-1%)

Reading benchmark results for Grade 1 and Grade 2 were comparable to the previous year. The decline in Grade 2 results was a downward trend across the district.

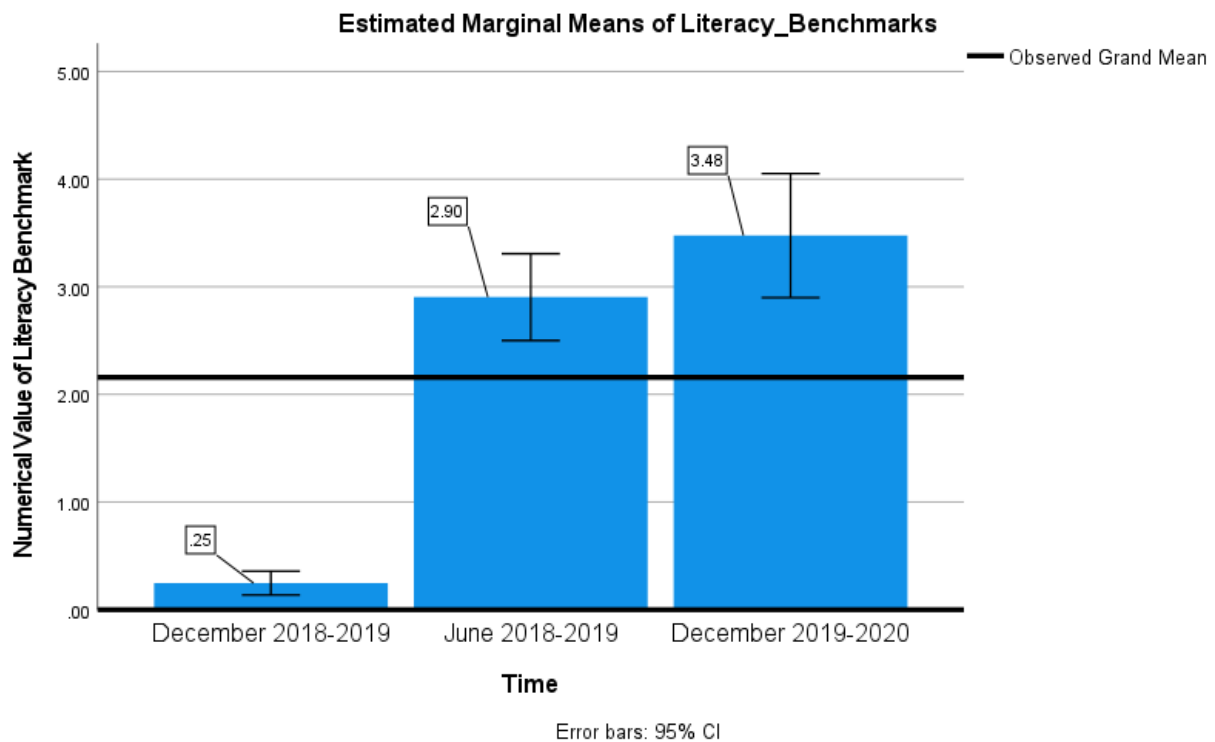
Grade 1	2018	2019	+/-
Priority School % at Grade Level	56%	55%	- 1%
District % at Grade Level	72%	66%	- 6%

Grade 2	2018	2019	+/-
Priority School % at Grade Level	62%	58%	-4%
District % at Grade Level	76%	72%	- 4%

Kindergarten → Grade 1 cohort

The growth in kindergarten is maintained through to December of Grade 1 as the average text level meets expectations and shows a growth of .6 of a level from June to the first benchmarking period in Grade 1.

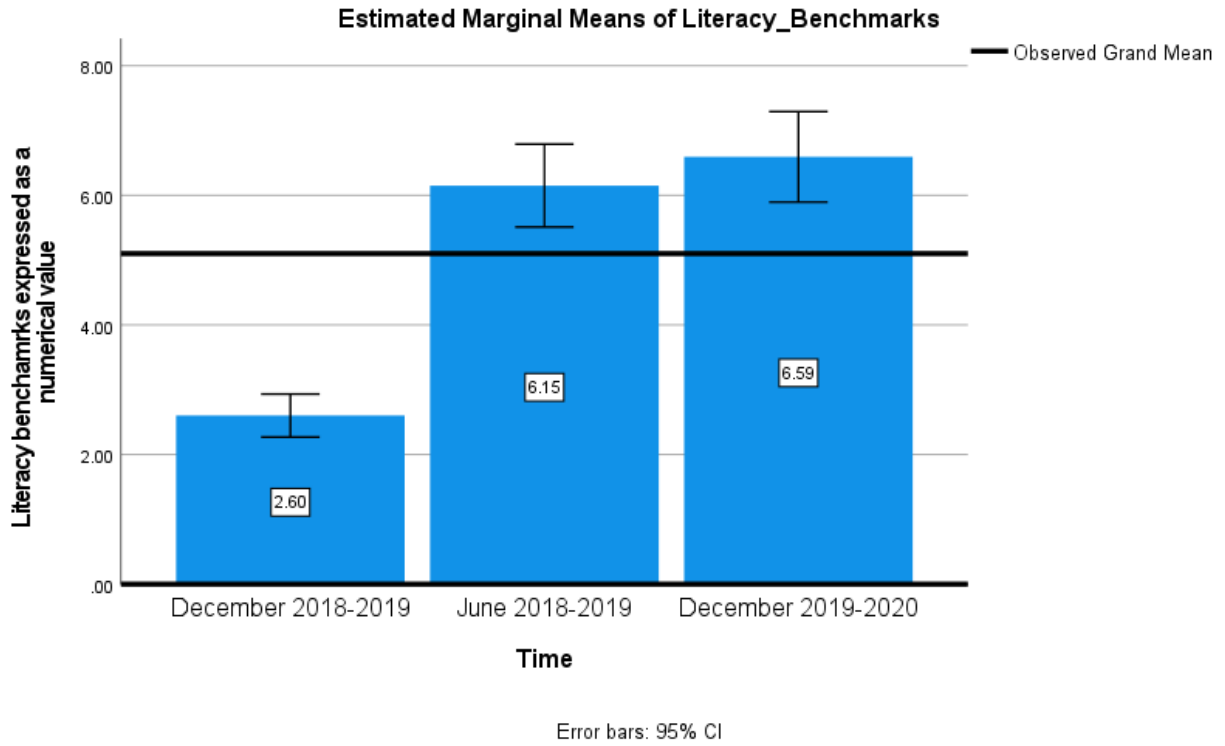
In June of 2019, the average benchmark is **above 2**, which is the numerical score corresponding to the required Level B at the end of Kindergarten. By December of 2019, the average benchmark is **above the score of 3**, which corresponds to the suggested Level C. (Note there are no defined standards for mid-year but given a typical pattern of growth, students should be at Level C or above in December of Grade 1 in order to meet end-of-year expectations.)



One particular note of encouragement is the difference in the average December reading level for this Grade 1 class of 2019-2020 compared to Grade 1 students from the previous year (See next graph). Grade 1 students in the first year of the project had an average 2.6 reading level (between Level B and C) in December. As seen in the graph above, those Grade 1 students who benefitted from one year in the project had an average December reading level of 3.48 (between Level C and D). Even given the Grade 1 growth rate of 3.55 reading levels during the project's first year, the average of these students' reading levels would have been on a trajectory to meet the Grade 1 end-of-year expectations.

Grade 1 → Grade 2 cohort

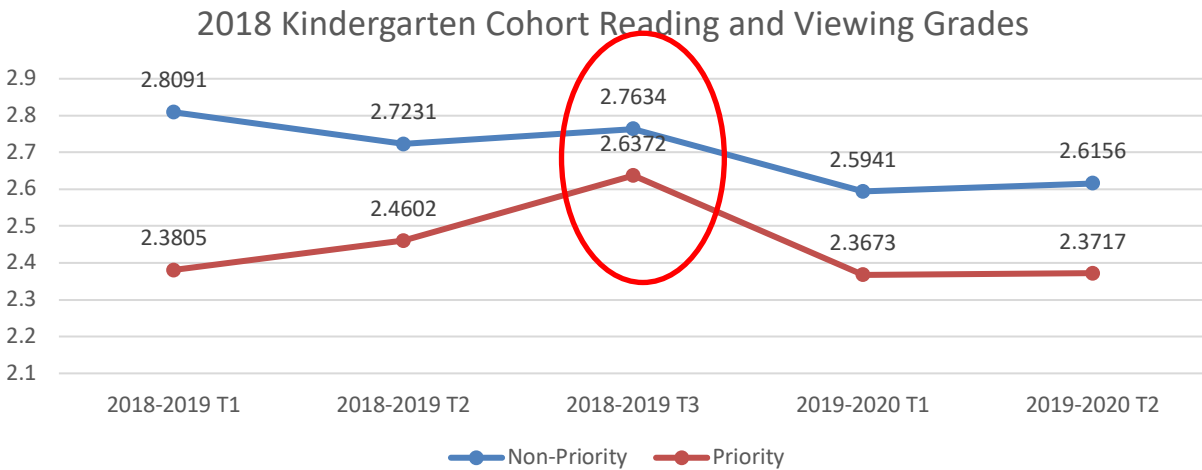
Students showed fairly good growth from December to June of Grade 1 but finished the year below the expected level of 7 (Level G). Thus, despite a modest growth in Grade 2 the average remains slightly below grade-level.



Report Cards

Report card grades pertaining to the 2019-20 school year should be interpreted with caution due to the closure of schools in March 2020. The 2018-2019 school year as well as the overall effect of the program are emphasized in any key findings.

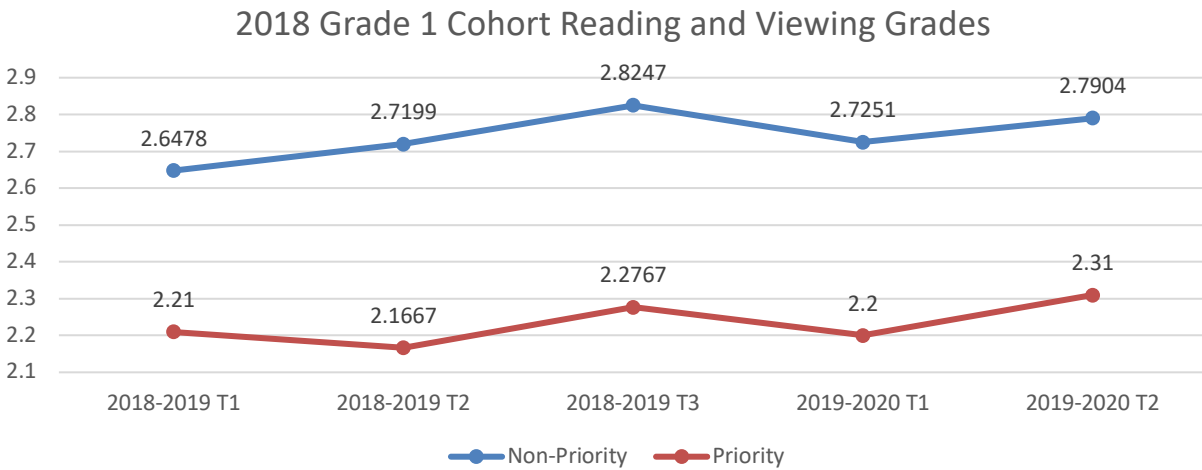
Kindergarten → Grade 1 cohort



Key findings:

- There were statistically significant differences between the two groups at the first two reporting periods only.
- Priority school students demonstrated statistically significant growth during the kindergarten year.
- There was no significant change in grades over the 1 ½ years of the program for priority school students. The achievement gap between priority and non-priority school students had narrowed by the end of the program but unfortunately this may have more to do with the decreasing level of achievement over time demonstrated by students in non-priority schools.
- Isolating the first year of the intervention, however, suggests that the achievement gap had closed by the end of the year.

Grade 1 → Grade 2 cohort



Key findings:

- Differences between the two groups were statistically significant at each reporting period, suggesting that the achievement gap had not closed in terms of reading and viewing grades.
- Non-priority school students' growth in Grade 1 was statistically significant but the slight change in priority school students was not.
- Both groups had statistically significant growth in Grade 2. In terms of reading and viewing, growth seen over the entire program was statistically significant for non-priority school students but not for priority school students

Findings for literacy show that the kindergarten students demonstrated promising growth on both reading benchmarks and report cards in the first year of the project. During the second year of the project this group was reading, on average, at a higher benchmark level than Grade 1 students who did not benefit from a year in the project.

Grade 1 students in the first year of the project made good gains on reading benchmarks with a text level increase of 3.55 levels from December to June. (There is a difference of 4 levels between the end-of-grade 1 expectation, Level G, to Level K by the end of Grade 2). However, the relatively low starting point made it difficult to reach end-of-year expectations without accelerated growth. Report card grades for Grades 1 and 2 remained relatively unchanged.

3. Numeracy

Progress in numeracy was measured by report cards and numeracy benchmarks.

As with oral language and reading, report card grades were analyzed for the 2018-2019 Kindergarten to Grade 1 and Grade 1 to Grade 2 cohorts only.

Numeracy benchmarks are collected by the district twice a year, in December and June. Numeracy benchmarks are based on a set of outcomes students must achieve by the end of the year. The assessment was developed provincially and is a set of tasks corresponding to grade-level curriculum outcomes on a variety of strands (e.g., number sense, patterns, number facts and operations). The assessment is administered in a conference-style format individually with each student. Numeracy benchmarks during the following year were not analyzed for cohorts as progress on the assessment is not continuous from one year to the next.

Summary of numeracy data

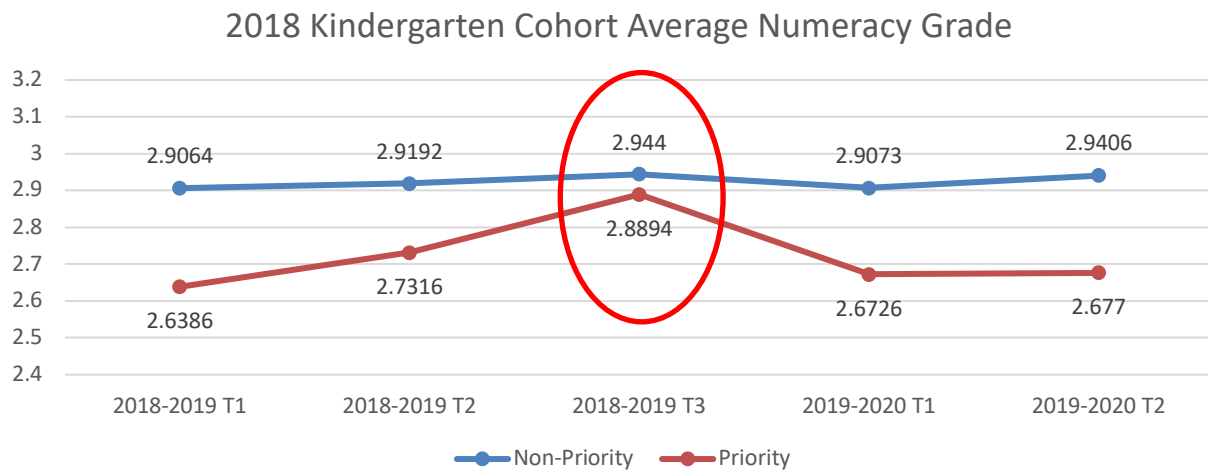
	Kindergarten (Project Year 1)	Gr 1 (Project Year 1)	Gr 2 (Project Year 1)	K → Gr 1 (Project Year 1 → Year 2)	Gr 1 → Gr 2 (Project Year 1 → Year 2)
Numeracy Benchmarks (June) (% items correct)	+4% compared to previous year (83% → 87%) K 2018 priority schools compared to K 2019 District average 90%	No change compared to previous year (70% → 71%) Grade 1 2018 priority schools compared to Grade 1 2019 priority schools District average 75%	-3% compared to previous year (72% → 69%) Grade 2 2018 priority schools compared to Grade 2 2019 priority schools District average 73%		
Report Card – Numeracy strands	Statistically significant growth in grades over the first year; closed achievement gap between non-priority	No change in grades over the first year; achievement gap has not closed		No change in grades over 1 ½ years; achievement gap has not closed	No change in grades over 1 ½ years; achievement gap has not closed

	and priority schools				
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Given the slight, if any changes overall, only kindergarten report cards will be explained in any further detail. See Appendix 7 for information on other measures.

Report Cards

Kindergarten → Grade 1 cohort



Key findings:

- Differences between the two groups were statistically significant at all points except T3 (June 2019) providing some evidence that the achievement gap had closed at that point but opened up after the summer break.
- Priority school students demonstrated statistically significant growth during the Kindergarten year.
- There was no significant change in grades for either group over 1 ½ years.

As with reading, kindergarten made the greatest gains when compared with the previous year. However, the discrepancy between achievement at K-2 in the priority schools and non-priority schools is not as apparent in numeracy, particularly as measured by the end-of-year benchmark assessments.

4. Parent Engagement

Priority schools took on a number of initiatives related to parent engagement. These are discussed more fully in Section IV. As part of the quantitative data, a parent survey was conducted and attendance was tracked. Parent Survey data was reported in the Year 1 report but is summarized here. (See Appendix 3 for the complete survey). Attendance data is updated to December 2019.

The attendance issues experienced at priority schools might lead one to believe that parents do not have a good relationship with the school, or perhaps that children resist going to school. We often create stereotypes that parents in priority neighbourhoods may have had poor experiences at school, and thus carry a negative attitude toward school into adulthood. The results of a parent survey completed in April 2019 prove differently.

464 surveys were returned representing 766 students, or a 60% return rate. [Note: some parents may have returned more than one as they were asked to complete one survey for each child in Kindergarten, Grade 1 and Grade 2.]

97% of respondents agree or strongly agree with the statements:

I feel welcome at my child's school.

My child enjoys school.

The average response to each item is as follows:

4=Strongly Agree 3=Agree 2=Disagree 1=Strongly Disagree			
1. I feel welcome at my child's school.			3.6
2. My child enjoys school.			3.6
4. When my child has difficulty learning, there is enough help at school.			3.4
5. I have enough information about my child's learning.			3.3
3. My child's work is usually...	Too Easy	Just Right	Too Difficult
	9%	87%	3%

Building on the good relationships with parents, schools worked hard to engage parents in their child’s learning. Developing good attendance habits is part of that. Priority schools struggle with a number of students defined as having poor attendance, i.e., missing more than 10% of the available schools days. If students are not present at school they cannot benefit from small-class sizes and intervention support.

	K-2 Chronic Absenteeism December 2018	K-2 Chronic Absenteeism June 2019	K-2 Chronic Absenteeism December 2019
Priority School Average	21.7 %	25%	14.9%
District Average		9%	

These results are encouraging as the gap between priority and non-priority schools is narrowed.

5. Teacher Confidence

The effects of the program on teacher confidence are measured by teachers' responses to a survey completed in June 2019 after one year of the project. Although these statements do not address teacher confidence as a single item, they describe teaching behaviours and conditions that impact job satisfaction. Feeling satisfied with how one has done a job raises one's belief that actions are making a difference.

The project appeared to have the greatest impact on teachers' opportunities to target instruction for individuals and small groups. Three survey questions addressed this:

I was able to administer formative assessment more often. 82% Agree or Strongly Agree

I spent more time in individualized and small-group instruction. 86% Agree or Strongly Agree

I was able to differentiate instruction more easily. 80% Agree or Strongly Agree

Teachers were somewhat more satisfied with approaches to behaviour management.

I spent more time teaching rather than managing the classroom. 67% Agree or Strongly Agree

I was able to be more pro-active with student behaviour problems. 82% Agree or Strongly Agree

Finally, the level of collaboration in the school was positively affected, with the movement to shared ownership of students minimally impacted.

I collaborated more with colleagues. 74% Agree or Strongly Agree

My colleagues and I engaged in more shared responsibilities for students (e.g., between classes, cross-grade). 58% Agree or Strongly Agree

My colleagues and I discussed student assessment data more frequently. 70% Agree or Strongly Agree

These effects are also illustrated further in Section IV through interview responses. (See Appendix 4 for the complete survey and results.)

Section IV: Voices of Teachers and Administrators: Teaching and School Culture

We know school culture is paramount to the success of this project and through conversations with teachers and administrators have identified several factors that describe the influence of the initiative. Voices of educators are often missing from policy discussions yet the school and classroom are where initiatives succeed or fail. This is indeed a lengthy section but it is imperative that the story of the project be told by teachers and principals. The effects of poverty and the benefits of the project are manifested in some ways not apparent in statistics.

Interviews were conducted during the first year of the project. A group of six teachers (two per K-2 grade-level) from each school were interviewed in the winter and administrators were interviewed in June. In addition, teachers and principals were invited to submit comments for a 'school snapshot' in February 2020, the second year of the project. (See Appendices 5 and 6 for guiding questions.)

Sharing best practices became an integral part of the project. Administrators in the project met regularly and two district professional development days were held for teachers focusing on early literacy and oral language.

As the project evolved we were interested in identifying its effects on classroom and school practices. Unfortunately, due to the reduced length of the project we are unable to dive deeper into these qualities to further correlate their influence on student achievement. The following characteristics came to light as teachers and administrators shared their experiences:

- **Data is used effectively and instruction is targeted for flexible small groups**
- **Behaviour issues are addressed pro-actively**
- **Oral language is foundational for early literacy and must be modeled intentionally**
- **Ownership of students is shared among staff members**
- **Staff demonstrates collective efficacy, believing in their ability as a team to make a difference**
- **Relationships with students, parents and the community are foundational for success**

In addition, I sought staff's opinions on services that were lacking for high-poverty schools as well as advice on ways that funds could be redirected. These are highlighted in a final section as **systemic barriers** facing high-poverty schools.

The degree to which staffs shared a common understanding of and commitment to the following principles varied among schools but would seem to be an excellent starting point for further conversation and professional development. Smaller pupil-teacher ratios will not automatically affect student achievement without supportive conditions in place.

1) Data is used effectively and instruction is targeted for flexible small groups

The project has made me try new ways of teaching. We are spending less time on whole group instruction and we are able to focus in on where each of the students is individually in all academic, social and emotional areas. We are able to specifically target individual goals daily, with small groups and one-on-one time. [Grade 1 teacher]

While small-group instruction is a mainstay of primary classrooms, teachers overwhelmingly reported being able to meet with students more often as a result of the additional teachers. There were many comments related to students receiving small-group instruction, either daily or every other day, in literacy and numeracy. Beyond frequency, however, was the notion that assessments of learning could be completed more often and group lessons planned accordingly. Staffs had to move beyond 'data for data's sake' in order to use formative assessment in a meaningful way.

Both smaller class sizes and co-teaching models allowed teachers to collect data more quickly and form small-groups based on needs. In most schools, teachers then spoke of being able to do quick assessments daily so that groups could be restructured and lessons adapted. Further, two school staffs spoke of setting goals with children and meeting with them regularly to monitor progress.

Having small class sizes has allowed me to deliver 90% of my instruction in small groups. Everything I teach now is intentional and targeted at the student's level. No longer am I delivering content that is above or below where a student is. Because I can be so intentional with my instruction, students are more engaged, feeling confident and enjoying what they're doing. It is encouraging that there is now hope that we can be meeting the extremely diverse needs of our students with small class sizes. Although many of our students come in below grade-level and may even finish the year below grade-level, we have been afforded the opportunity to see just how much progress they can make, regardless if it's at grade-level because of our small class sizes and very intentional instruction. Every child can learn if given the right opportunity. [Primary teacher]

I've found initially for grade 1, collecting data took me a little while...sight words, letters, sounds. I found that went really well this year so we were really able to pinpoint some needs and start that off early this year. [Grade 1]

There's no point in collecting it if you aren't going to use it to help the kids, to figure out what you're going to work on with them. [Grade 1]

In previous years we would have noticed [child who needed confidence] but we wouldn't have had the resources to address it. I know there are bubble kids. But we get so caught up on kids who struggle we miss the ones that come in and need enrichment. Even in schools like this there are kids who are naturally talented but we never have the time to take them there. You don't want those kids to get bored. [Grade 2]

A major change to my classroom practice is not only more small-group time, but more one-on-one time. Now I have time to do something great with all the data I have collected. I can follow up and reteach in a timely manner. [Primary teacher]

We are doing data all the time, you can use that extra person to pull, do the data, which then influences your lessons and small groups. You're on top of it more. Your groups are more fluid, you're switching. [Grade 2]

We're trying to figure out this bank of kids who aren't progressing, why can't we get them further. So [we collected] more data – phonemic awareness with rhyme and syllables [Grade 1]

We had to make sure we were looking at data to drive instructional strategies – what are our goals? Where are we going? We looked at it in January and K-2 broke off and did instructional groups to focus on phonemic awareness skills. [Principal]

There is more accountability [for the students]. They can set a goal...and know I'll be checking in. [Grade 2]

Each student has personalized goals for learning and we are able to conference with them daily on their goals. The students are feeling successful and are taking more ownership over their learning. They are able to reach their goals faster, which is boosting their confidence and their desire to excel. A large number of our students have moved up a reading level consistently every month. [Grade 2]

2) Behaviour issues are addressed pro-actively

Student behaviour was a common theme brought up in teacher interviews. The benefits of the reduced teacher-pupil ratio were often described in scenarios such as,

- Students struggling with behaviour could more often be separated due to greater number of classes
- Fewer students meant reduced stimulation for students prone to triggers from noise, physical contact and/or verbal interactions with other students
- Students could participate more often in small-groups and centers targeted at their level, thereby reducing frustration or boredom

School staffs that were most positive about their schools' approach to behaviour described a pro-active, team-based approach. These teachers felt they had behaviour plans in place that could be used to coach students but that when a crisis occurred they were supported by a response-team with a clearly understood protocol. In schools where behaviour problems dominated more of the interviews, teachers described classrooms interrupted by explosive and aggressive incidents and did not feel the behaviours could be dealt with appropriately in our present system.

[Compared to last year without additional support] *all of the classrooms last year experienced multiple lockdowns where we were evacuating classrooms. All of the classrooms had at least one student who had a hard time coping in the classroom. This year I don't know that anyone has had to evacuate yet in K-2.* [Grade 1 teacher]

Teaching Grade 2 I've had the chance to know one student for the last two years and expected high needs. Last year he was on a behaviour plan. With our small classes he hasn't had any episodes. It has to do with meeting his needs. I expected to need support but it's a non-issue.

I have 10 students but have five potential behaviours...but they're not. You can see everything. When you know someone's go-to is to hit I can get right over there and prevent it. [Grade 2]

I remember last year. How do I get guided reading? I felt like if I'm not out there circulating things won't be going as they should be...there might be a group not looking at their books, not doing what they're supposed to be doing. Centers were to manage behaviour but they might not be learning much. They would just be stamping willy-nilly. I had a hard time. This year I can see very easily what everyone is doing. I remember one day I came in and we just did station time and I looked around and they were all doing what they were supposed to be doing! [Kindergarten teacher]

Having another teacher present in the class the classroom management piece is huge. Typically we have 19 kids in the room. There are two teachers in the class working with two groups and the others are working on choices. With one-on-one attention the kids feel more successful and so they feel more confident. I think confidence brings down those attention-seeking behaviours. [Grade 2 teacher]

Comments from two kindergarten teachers, one of whom takes a lead with behaviour issues for the K-2 team:

T1: Behaviour issues come to my desk and usually stay on my desk all year. This year that's not happening. They came to my desk, we worked with a few kids and by Christmas you don't hear about it anymore.

T2: I agree. It's proactive. I'm coaching him how to deal with frustrations. I can see him every day tense up but then say, 'Please stop doing that' to a child bothering him and move on.

...

T1: We have time to teach conflict resolution...the worse thing we can do is set an expectation and not manage it. Now we can set it and manage it.

Aside from the data we can actually see a lot of social-emotional growth in purposeful play, taking turns. That's a huge thing. We had huge barriers to learning with kids getting along. To see them work together, sit beside each other, I've seen that growth. With the extra staff member to go over and say, 'What's the problem, what's the solution?' There are gains that don't always show up on paper. [Grade 1 teacher]

A huge issue in schools is behaviour. It impacts not just that child's but those around. We have to get better. As schools we need to own these kids. We can't be quick to label them. We have to get better at owning and managing. When we contact the district it's because we have nothing left in our tool box....Every behaviour has a purpose. What is it this kid needs? [Principal]

There have been huge gains in social-emotional learning. There were very few incidents at K-2, very few team calls. Just a handful so you could take time to work through it...There was just more time in the classroom to navigate and coach behaviour issues. Before, you couldn't turn your back on the other 20 in the class. With the smaller classes, the kids were able to really pay attention to the modelling that was going on. One day an older student went to the Kindergarten class for his buddy room [because of misbehaviour in his own classroom]. The kindergarten kids were telling him, 'This is what we do when we're upset.' [Principal]

3) Oral language is foundational for early literacy and must be modeled intentionally

A partner project to *When Children Succeed* involved hiring a Speech Language Pathologist as a resource for teachers and parents, focusing on language development. Data collected for that project highlighted the language deficits prevalent in primary students in the priority schools. Although teachers would agree oral language is the foundation for early literacy, little professional development had been done in that area prior to this project. Interviews with teachers early in the project indicated a need for more speech therapists, but admittedly sparse use of the new SLP position as a resource for enhancing instructional practice. Over time, K-2 staffs exhibited a growing awareness of the classroom setting as a place to introduce and model vocabulary in a variety of settings, primarily through exploratory centers. The use of an SLP as a classroom resource is still an evolving model, but given the frequency of language needs identified by teachers it must be considered as an option to augment clinical speech services. Vocabulary development, grammatical structures and phonological awareness were mentioned by teachers as classroom needs, all topics that fit within the mandate of the SLP project.

Frustration with speech services was evident. Teachers reported too large caseloads so that students weren't assessed or seen until late in the year, if at all. Students were discontinued before meeting success because of other priorities. Programs were developed requiring one-on-one follow-up support which was not available. Teachers questioned the distribution of speech therapists, perceiving that schools with fewer needs received allocations equal to or greater than the higher-needs schools. Trying to meet language needs with an increased focus on classroom support (Tier 1 intervention) is one solution but teachers were clear that it did not address the high-needs of students who struggled with articulation or were considered non-verbal.

Over the course of the project oral language as a part of classroom instruction has taken a more prominent role in teachers' and principals' comments.

I'm seeing a higher level of oral language. It's easy to not talk much in a crowded classroom as an EAL student. [Kindergarten teacher] Others commented on students having more opportunities to engage orally due to smaller numbers, whether in whole-class discussions, presenting/commenting during sharing times or informal conversations with teachers.

There is a lack of vocabulary from a lack of experiences....I think it would be great if we had more community helpers to come in, more field trips so they can experience things that go on. So many of them never go to a grocery store with their parents. They don't have the vocabulary from those experiences. [Kindergarten teacher]

We don't always know what to do with oral language...when they don't know how to speak where do we even start? For our kids it's not the articulation they're failing at. They don't know their pronouns....math vocabulary. What do those concepts mean?....We've decided oral language has to be a focus. We are really going to work on that. We want to expand their vocabulary and be more authentic...with guest speakers and focus on careers....and going over language with them.[Principal]

I have had the opportunity to engage with oral language centers more than ever before – smaller class sizes have allowed me time to join students in these centers. I have absolutely grown in my ability to implement these centers in my classroom. [Primary teacher]

Having an SLP attached to the project was excellent, and that comes directly from feedback from the K-2 team. The access to support in ensuring lessons, activities, conversation stations, purposeful play centers...some of those little tweaks she recommended were key in them becoming effective classroom structures for students. [Principal]

4) Ownership of students is shared among staff members

The benefit of shared ownership of students was most often raised in interviews where schools had adopted co-teaching or team-teaching models. However, in schools where single-classroom teachers worked closely together in sharing data, planning and problem-solving, elements of shared ownership appeared. Staffs that felt they shared responsibility for students with others were positive about its effects.

One aspect of working as a team is co-planning and sharing of ideas. This was reported in most schools, whether stand-alone or team/co-teaching models.

We all have differing personalities, all strong people with strong personalities...it's guaranteed when you bring up an idea all the questions will be asked so that what you end up doing is exceptionally intentional. You're not just going to choose to do an activity without someone really making you accountable for how, why and what you are doing to meet the needs of students in your room. [Grade 2 teacher]

We were saying the lessons are more in-depth because you have two brains, or even three brains, and all three of us are planning...we kind of push each other. [Grade 2 teacher]

We plan the same lessons but we don't always teach them on the same day, so we get a chance to reflect and adjust. [Grade 1 teacher]

Teachers are having K-2 conversations, not grade-level specific ones. They are confident to try new things and are looking for new things to try as a K-2 team. [Principal]

Schools with single-classrooms sometimes made adjustments to schedules or groups so that students were grouped between or among classrooms for a subject area or short-term intervention.

It's so nice to have someone to talk to at the same grade and expectations. We haven't had [grade-level] partners in many years...

We noticed two levels in math – some weren't getting it, some were moving along – I'm doing reading, she's doing math. We can plan our lessons to target the kids for that time. [Grade 1 teachers]

We have been doing flexible groups during the same literacy block. We commonly share students during literacy. It's working well with co-teaching. You can really differentiate. [Grade 2 teacher]

We looked at data in January and k-2 broke off and did instructional groupings focused on phonemic awareness skills. [Students who didn't require this] worked on writing. [Principal]

Finally, one school spoke from the perspective of sharing responsibility for students.

*I feel like I'm part of a grade 1 team. Even when you go to other schools you might have a grade 1 team but I never really felt like anyone else was **supposed** to listen. I kind of feel like [S] **has** to listen. [L] **has** to listen. The three of us can figure something out.*

It's such a shared responsibility. It's not like these are my kids and those are your kids. It's shared responsibility between the three teachers. Everyone has their own expertise. We might know the curriculum but each of us has a different approach...Our kids need that. Especially kids who do not have that support system at home. We need to give them all that extra. We need to fill in the gaps. [Grade 2 teacher]

I'm sure you've all felt it, I've felt it. At the end of the day I've said I wasn't able to reach that child...Now at least I don't have that guilt feeling. There has been somebody else who has that opportunity. With this present model, everybody gets the attention. [Grade 2 teacher]

Our beliefs in the importance of co-teaching and co-planning have grown exponentially. Our students always have the opportunity to work with three different professionals, which allows us to share perspectives and problem-solve. We are able to address academic concerns daily as a team, unlike the previous model where we would meet as a PLC once a week. [Grade 2 teachers]

We have become adept at working as a team to achieve goals and results. The whole K-2 team works together to foster learning among students and staff. Our staff has a growth mindset and we are always adapting the ways that we teach to better meet the needs of our students. [Grade 1 teachers]

5) Staff demonstrates collective efficacy, believing in their ability as a team to positively affect student achievement

Collective efficacy was defined in the 1970s by Albert Bandura, a Stanford psychologist, when he noticed in studies that a group's confidence in itself was correlated with greater success. Since then models of collective efficacy have been developed and tested in schools and in 2016 John Hattie identified collective efficacy as the highest-ranked factor influencing student achievement.¹⁶ Collective efficacy needs to be fostered by evidence of student growth as a result of collective actions and the development of truly collaborative teams.

In interviews where collective efficacy surfaced as a fundamental belief, teachers commented on their ability to make a difference in the lives of their students despite the disadvantages. Their tone conveyed neither naiveté nor a 'Pollyanna' view but rather a motivation to influence the factors they could, and not to internalize barriers beyond their control. Interview comments related to collective efficacy arose in schools that had both single-classroom and team-teaching models.

You have to believe all the kids can learn. When they are coming into kindergarten they are red [i.e., flagged by EYE-DA scores]. If you get caught up in that it's going to be such a difficult year for you. You're thinking I still have to meet this expectation by the end of the year. I talked to [C – new teacher] and said, "Don't worry about that. Just look at where the kids are now and meet their needs. Growth is growth. Don't get caught up in June. We'll get there and do the best we can. They'll surprise you". That journey is a frustrating journey at times. But like [E] said, we have those connections and at the end of the day you have your little chats and you debrief and then you're done. That's why some of us are more able to stay here and have a long career and we're able to separate that. [Kindergarten teacher]

In order to survive here you have to look at these parents and families and see hope, see how much they love their kids. You never doubt it. You never judge. We giggle – it's a survival tactic. But you see hope in them and every day is a new day. We don't go backwards. We go forwards. [Kindergarten teacher]

I have seen the teachers reinvigorated. They love that they know their students so well. They can speak so specifically about the needs of each individual student. They know exactly what the next steps are and where they need to work. They love that they can reach each student multiple times a day. [Principal]

¹⁶ Donohoo, J., Hattie, J. and R. Eells. (2016). *The power of collective efficacy*. Educational Leadership, 75 (6). <http://www.ascd.org/publications/educational-leadership/mar18/vol75/num06/The-Power-of-Collective-Efficacy.aspx>

This project has given teachers a sense of being supported – of being heard. [Principal]

The strength of the team is that ability to come together. Having that vision that every little bit counts. And having that relationship...You're going to have those frustrating moments but it doesn't matter. It's the way that it's handled...we've all had tough days around this table. That ability to say that's not a barrier, it's a frustration...and I'd say this group of teachers does that very well. [Principal]

One thing I have learned is there are things we can impact and things, despite our desire to, we cannot impact. Our job is to provide a safe, consistent, caring environment, and not lower our expectations for any reason. When we do that our children are done. We cannot use any of the issues our families and children face as an excuse to lower those expectations. We have to find a way to connect – I always say we have to know their dog's name. With that connection and high expectations, we can make a difference. [Principal]

6) Relationships with students, parents and the community are foundational for success

A common theme raised in the majority of interviews with school staffs was the strengthening of relationships. More personal connections with students were most often mentioned, followed by connections made with parents. Priority schools engage with a number of community partners to provide services and these were in place prior to the project. Schools would not be able to run the programs they do without the support of these many government and social agencies, business partners and volunteer groups.

Relationships with Students

Teachers felt they had more opportunity to make personal connections with their students. This was often spoken of in conjunction with the morning routine when teachers felt they had more time to 'chat' or in the context of a structured time with each student. It is also a consequence of more time spent in individual/small-group teaching situations where teachers had increased opportunities to know their students as learners, such as in numeracy and literacy groups, writing conferences and in exploratory/play centers.

I have been able to develop stronger relationships with my students and I have found that they have been able to develop stronger relationships with their peers. Working with fewer students more personally has improved the environment and learning quality in our classroom. My students are more confident and relaxed and I have noticed they are taking more risks in their learning. They are becoming critical thinkers and are encouraging each other along the way. [Primary teacher]

The small class size has granted me time to have lunch dates with each of my students. I use this time to really get to know my students on a more personal level. They feel comfortable talking to me about their life outside of school and this gives me the opportunity to find out their interests, fears,

accomplishments, etc... I then use this information to help plan our purposeful play areas and conversation stations. [Kindergarten teacher]

The safe environment created in priority schools cannot be discounted.

Grade 2 Teacher: *Snow days – that’s a lot of days to wonder if someone ate.*

Kindergarten Teacher: *Christmas is the hardest. I’m not a teary person but that’s two weeks without what we’ve become as their normal.*

Kindergarten Teacher: *They don’t look forward to the weekends.*

Kindergarten Teacher: *It’s sad when they leave on Fridays and they say...’How many days ‘til I come back?’*

The best part of my day is going outside to get those kids. They’ve got that big smile. Especially on a Monday morning they are so excited to be here. It’s really heartwarming. [Kindergarten teacher]

It’s rewarding to know we’ve created that safe environment and they want to be here with us. [Kindergarten teacher]

Grade 1 Teacher: *I wondered if it was going to feel like a classroom [with smaller numbers] but there is a greater sense of community. Just like a homey feeling. I’ve slipped up and said, “Will you get in the house?”*

Grade 2 Teacher: *We can all sit down to eat together.*

K Teacher: *We’ve always known the importance of relationships but this has taken it to a new level. We’ve become a ‘mummy’ figure vs ‘teacher’ figure but in a very respectful way. We can teach all those things you would teach your own child. They know the expectations....A lot of these kids don’t know how a family operates. So we’re not just giving them academics, we’re giving them a life skill that they are able to take back to their own families.*

When the relationship is broken –

I say that every day. Every day is a new day. Sometimes even the morning, afternoon is new. I always tell them, after we reflect. We dealt with that. We can move forward. [Grade 2 teacher]

Relationships with Parents

When describing relationships with parents it is helpful to divide the topic into two categories. The first that arose during interviews is the rapport at the classroom level between teachers and parents. The second is the level of parental engagement in children’s education described by such activities as getting children to school on time, completion of homework, and parent attendance at school events. Over the course of the project schools held a number of events in order to build that rapport and foster engagement.

Informal connections between teachers and parents were often commented on during the interviews. Teachers found the smaller class sizes or shared classrooms meant they had more time in the

morning/after-school for those informal chats. This was especially strong in those schools where the majority of children were walkers and teachers met parents at the door for arrival/dismissal.

Last year when I had 21 there were always a few parents who stood back. They didn't feel a connection. This year it's more intimate – I can talk to any of them. (Grade 1 teacher)

I have definitely felt the impact of a small class with respect to personal connections with the students and their families. I speak to a parent of every child at least twice a week (often more). [Primary teacher]

I find parents vocal about their excitement about what their children are doing. I connect with Dojo so photos and videos are much appreciated as it keeps them updated on what we are doing at school. 18/20 students are regularly completing homework and many parents can talk to me about what their kids are learning. Parents are responsive when we need to talk about ways they can work with their child at home or areas that need improvement. [Kindergarten teacher]

There were definitely frustrations listed when the question of parental engagement was raised in interviews. Teachers and principals cited difficulties pertaining to school routines and activities –

- Student attendance and tardiness
- Homework not completed
- Bookbags not checked/forms not signed
- Physical care
- Independence with personal care at school – toileting, dressing
- Educational activities at home
- Support with behaviour issues

There was a certain amount of discomfort noted when teachers felt they needed to take on the role of 'parenting the parent' and the tension in working with Social Development was raised. It is obvious that the school is a trusted entity, yet parenting support is not always the role a school should take. There were calls for Social Development to be more involved– that it had become a reactionary agency instead of proactive. Some schools suggested involving Social Development to facilitate parenting or adult literacy classes. One principal cited a need for a representative from Mental Health to work with parents on fostering healthy attachments. One school raised the possibility of having a social worker as a liaison to act as a sounding board or filter before cases went to intake.

Grade 2 teacher: Am I calling about dirty and smelly? Is this the biggest thing being disclosed? But maybe it's more dire than what I know...If you call intake you are guaranteed to be on the phone 20 minutes. They'll log it, they might check back, they might not. If they get enough phone calls in a certain amount of time...If they don't get another phone call, that log moves on. It could be a warning sign, it could not.

Kindergarten teacher: For me, I lose a lot of sleep over that. I probably make three calls a week. Dirty clothes, chronic lice, attendance...

Grade 2 teacher: We've said at meeting after meeting...if a child is not at school how can they tell you if there are markers for abuse. There have been cases that have come out. If we had someone [from SD] we could meet with once a week...

Grade 1 teacher: There are things I think, 'That's not good but no one's going to do anything about it.' Like not giving child medication. There are lots of things I just let go. But if you are meeting with someone...

Work with outside agencies was balanced, though, with the caveat that the trust between school and parent must be maintained. *I'd hate to see a social worker build a wall. It's hard to get parents here. We try to make it non-threatening but they'll come for their children. To try and get them to access services, it comes down to relationships. If they trust us, we can direct them.* [Principal]

Administrators and teachers spent considerable time during the project thinking about the types of events that would engage parents in their children's learning. All the schools had a history with events such as Open Houses, Literacy and Numeracy activities, concerts and presentations and social activities. During the project, schools identified some factors that created success, barriers that hindered, and raised questions as to what parental engagement looks like in high-poverty schools.

A few priority schools hold events through the day, and with the majority of parents not employed, attendance is good. However, in a school with a high percentage of parents employed in minimum-wage service jobs, attendance through the day is not an option. As one principal stated, *It isn't just the big things but who has their homework done every night, who do we not have to chase for forms. A lot of what we're using to judge [parental engagement] got me thinking what does parental engagement really mean? If the kids' homework bags are checked, information sheets filled out, those are big pieces...not necessarily that they come into the school....I'm the first to admit that if there is a magic wand to get parents to show an interest in their child's academics I'd love to know what that is. We have a huge parent turnout for the fun events...To get parents to come to anything just on academics is a struggle. I don't know what the easy answer is.*

What can we do that will make them feel safe? They wouldn't come to a math night because they were afraid they couldn't do the math...We have a pumpkin festival instead and get 80 percent of the parents. We have 'Come Listen to Me Read' instead of reading to them. It has to be safe for them to come. [Grade 1 teacher]

Schools had success when

- the event centered around an activity with their children
- parents were asked to RSVP with reminders and follow-ups from teachers
- there was a classroom component with the child and child's teacher
- there was minimal emphasis on 'information' in favour of activity
- there was an incentive with food or a give-away – e.g., book, take-home activity

A description of one school's initiative – "Parents as Partners"

We started last year [first year of the project] to invite our K-2 families in on the last Friday of the month to engage in activities with their children. We based this model off our Pre-K dinners "Supper Learning Nights" (which occur monthly to develop our relationships with pre-k families as well as provide supports to get children ready for K). Parents get a quick and easy take-away that support their children's learning followed by a hands-on activity with their child. We also want to promote healthy attachments with their children. Some of the activities thus far include – conversation stations, read-alouds, oral language and social skills through board games, STEM activities, and making 'snow' (kinetic sand). We just moved this initiative to the grade 3-5 level. We are getting approximately 85% turnout school wide!

This is the story of the project as told by teachers and administrators. They deserve to have the challenges known as well as their efforts to overcome the barriers their students face. As a system we have the responsibility to use our resources wisely. Treating these schools equitably, not equally, requires a new approach to funding the New Brunswick education system.

7) Systemic Barriers and Funding Options

Supports and Services

One interview question dealt with supports and services required by these schools that go beyond the classroom.

Services mentioned often related to the long waiting list once a referral was made.

- Educational Psychologists
- Occupational Therapists
- Speech Therapists
- Mental Health Counsellors

For some of these services, new roles for employees were suggested. For example, for schools with high needs, occupational therapists could assist with baseline assessments and then help teachers work with classroom techniques to develop fine and gross motor skills.

Social Development was often mentioned as an area requiring a better partnership with priority schools. Poor student attendance is a big frustration for these schools with a greater percentage of students identified as 'chronic' (i.e., missing more than 10% of the school year). Principals and teachers felt this is often a red flag for serious family issues, yet calls about attendance are usually turned back to the school and district to solve.

Another area, as described previously, is the need to work with families on basic parenting skills. Again, the role of Social Development needed to be navigated carefully so that any relationship between the home and school was not broken.

Early childhood education and the role of the 18-month Public Health Clinic and EYE-DA were also mentioned. Intervention programs previously held to support students flagged by EYE-DA are no longer available yet students' lack of valuable preschool experiences was often cited.

Behaviour was raised as a serious issue in a few schools with limited options once schools had exhausted all the strategies they had at their disposal. Rather than placing students on half-days or partial weeks alternate, short-term sites to focus on behaviour and counselling were recommended. As well, an emphasis on professional development for staff with regards to social-emotional learning and behaviour management is required.

Finally, monitoring of the Integrated Service Delivery (ISD) team was raised in two instances by administrators. There were concerns regarding the turn-over of team members and lack of adherence to a schedule as affecting its effectiveness. The referral process was described as 'time-consuming' yet administrators were often told an issue was 'not their mandate.' The concept, as a whole, was well-received but the team's ability to implement effective procedures appeared problematic in at least these few instances.

Spending Options

The second interview question related to this topic concerned New Brunswick's need to spend differently, given our relatively high-rate of per-pupil spending. Administrators and teachers were asked how they would redirect resources to better service their schools.

There was not a wide variety of responses to this question. Indeed, teachers and administrators were not really aware of how money was spent in education. I suspect had they been given a list of Department and District projects/initiatives they would have been better able to prioritize spending. One theme that arose, however, was the sense that teachers and administrators were seldom, if ever, consulted on programs intended to support them. There was a call for more conversations between 'those on the front lines' and those making spending decisions. The flow of information should be teachers to principals to District to Department, not always vice versa.

The '**coaching**' model was most often cited as a program from which they would redirect resources. It was felt individuals working in this capacity should be providing intervention for children in need, and that professional development with staff could be provided in other contexts. One spoke of the loss of after-school and shared sessions with other schools – that the focus on each school providing its own professional development was creating silos.

Teachers deemed some wide-scale **purchasing of resources** as wasteful and money that would be better spent after consultation with schools. The spending that resulted from the **March budget deadline** was also cited as wasteful. Money that has to be spent quickly so as not to 'be lost' results in poor spending decisions.

Another area that arose was the perception that **Educational Assistants** were not always allocated based on true need – that the standard changed from school to school. Indeed, teachers often had questions regarding how district supports such as Resource and Methods teachers, Guidance Counsellors and Educational Assistants were allocated. Resources could be redistributed if a system was developed that focused on identifying needs, using a standard protocol in each school.

With regards to **behaviour** issues, the high cost of professionals' time devoted to dealing with the few extreme cases was mentioned. It was felt that priority schools might feel more of an urgency to try and keep students at school, rather than resort to suspension or alternate schedules. However, the costs associated with Child and Youth Teams, Integrated Service Delivery Teams, Educational Support Services Teams, Behaviour Leads and Resource Teachers all dealing with behaviour soon mount. Proactive measures with School Intervention Workers in conjunction with Behaviour Leads were seen as a cost savings. As well, a centralized site when short-term specialized programming was required might be cost-effective.

Section V. Summary and Recommendations

Summary of Key Points

- New Brunswick spends more per pupil than most provinces, yet performs below the Canadian average on PISA assessments.

According to the Fraser Institute, New Brunswick spends \$14 768 per pupil, the second highest rate in Canada. Despite this investment, New Brunswick performs below the Canadian average on PISA assessments. Results for mathematics are the best, placing NB 6th in Canada in a statistical grouping with 6 other provinces. NB ranked 9th of the provinces in science in a grouping with NL, PEI, and SK and last of the provinces in reading, in a statistical grouping with PEI and MB. Further, NB is over-represented by the number of students performing below Level 2, the skill-level deemed necessary to participate in a literate society, at 22%, the highest percentage in Canada. Of this group, 7% failed to meet even Level 1, again the highest percentage in Canada.

- Child poverty in New Brunswick is unequally distributed with concentrations in Saint John, Campbellton and Bathurst. Schools in Saint John's priority neighbourhoods have child poverty rates ranging from 32.6% - 94.2%, well above the provincial average of 22.2%.

Poverty is a particular area of concern for New Brunswick's schools with a child poverty rate of 21.7%, 4th highest of Canadian provinces. Child poverty is unevenly distributed throughout the province with concentrations in Campbellton, Bathurst and Saint John - all with rates above 30%. Further, inequities are clear in Saint John with Wards 2 and 3 (the 'north' and 'south' ends) experiencing rates of 42.7% and 47.8% respectively. Visible minority children in NB experience poverty at an alarming rate of 46.7%, nearly twice the national average. Particularly disturbing is the high rate among children of Arab descent at 80%, again almost twice the national average. Schools welcoming refugee children must help them overcome not only barriers due to poverty, but also obstacles caused by an unfamiliar language and culture. Dealing with the effects of living in countries affected by war, and time spent in refugee camps are new challenges for our schools requiring additional and specialized resources.

- New Brunswick's funding formula for education does not take into account the costs associated with educating children in poverty.

Children living in poverty face several barriers related to housing, nutrition, early literacy and language, and family/community trauma. Students living in poverty face unique challenges, not common to higher-income families. Schools reported a number of effects related to poverty that required time, personnel and financial resources.

Physical needs	Food, clothing and housing insecurity affecting health and well-being; difficulty accessing medical, dental and vision care
Early childhood experiences	Difficulty engaging in pre-school and school activities, low levels of oral language and literacy
Goals and aspirations	Lack of role models for graduation and higher education enrollment, school attendance and engagement issues
Community environment	Exposure to higher-crime rates
Parenting support	Greater number of single-parent families, foster care, concern about basic parenting skills
Access to specialized services	Economic barriers to private services (e.g., counsellors, psychologists, speech therapists, tutors)

- Kindergarten and Grade 1 students showed improvements in oral language during the first year and into the second year of the project. (Grade 2 was not part of the data collection for oral language the first year of the project.)

During the first year of the project, Kindergarten and Grade 1 students narrowed the achievement gap between priority and non-priority schools as measured by Speaking and Listening on school report cards. When the Grade 1 cohort was followed into the second year of the project into Grade 2, 29% more students performed within an average range for vocabulary as measured on the *Renfrew Action Picture Test*. This group was also deemed to have closed the gap between priority and non-priority schools as measured by report cards after 1 ½ years.

Teachers often reported students entering school with limited vocabulary due to lack of role models and experiences, such as trips to the grocery store or similar family outings. Oral language was an emphasis in the project with an additional Speech and Language Pathologist hired as a resource for priority schools. After the first year of the project, 86% of teachers reported spending more time in conversations with individuals and small groups when compared to previous years.

- Kindergarten students showed improvements in reading during the first year of the project and into the second year of the project.

Kindergarten students in the first year of the project closed the achievement gap in reading between priority and non-priority schools as measured by report cards. This group also read, on average, at a higher level when compared to kindergarten students from the previous year.

- The effect on numeracy was minimal except for kindergarten students as measured by report cards.
- Parent surveys show a high degree of satisfaction with priority schools.

Preconceived notions and stereotypes might lead one to believe that parents in priority neighbourhoods have a tenuous relationship with schools. However, this was not the case as measured by a parent survey conducted in April during the first year of the project. 464 surveys were returned representing 766 students, or a 60% return rate. [Note: some parents may have returned more than one as they were asked to complete one survey for each child in Kindergarten, Grade 1 and Grade 2.]

97% of respondents agreed or strongly agreed with the statements:

I feel welcome at my child's school.

My child enjoys school.

Staffs in priority schools recognized the importance of relationships with families and much effort was given to strengthening parent engagement. *The only way that we can make a difference is to build capacity in students and their families, through a relationship of trust and acceptance.* (Principal)

- Improvements were made in attendance rates in priority schools.

Priority schools struggle with a number of students defined as having poor attendance, i.e., missing more than 10% of the available schools days. If students are not present at school they cannot benefit from small-class sizes and intervention support. Efforts were undertaken to address this in the priority schools and the trend is encouraging as the gap between priority and non-priority schools has narrowed.

	K-2 Chronic Absenteeism December 2018	K-2 Chronic Absenteeism June 2019	K-2 Chronic Absenteeism December 2019
Priority School Average	21.7 %	25%	14.9%
District Average		9%	

- To maximize effectiveness of additional resources, attention must be paid to teaching and school culture.

Teachers and administrators were able to share their experiences during interviews and through an online questionnaire. Six key factors emerged as characteristics illustrating the effects of the project on teaching and school culture.

Data is used effectively and instruction is targeted for flexible small groups

Behaviour issues are addressed pro-actively

Oral language is foundational for early literacy and must be modeled intentionally

Ownership of students is shared among staff members

Staff demonstrates collective efficacy, believing in their ability as a team to make a difference

Relationships with students, parents and the community are foundational for success

Recommendations

1) Funding for schools serving high-poverty neighbourhoods is increased in order to reduce pupil/teacher ratio.

Poverty presents many challenges that are not faced by schools serving mixed -, middle – and high – income communities. Districts do not have enough flexibility in allocated resources to address the high concentration of needs.

“High-poverty” neighbourhoods should be identified in conjunction with work from Statistics Canada and agencies such as the Human Development Council. Schools in which students from these communities make up a certain percentage of the total population (defined as a threshold) would meet requirements to secure additional funding. It was difficult to acquire accurate information regarding poverty levels and school catchment areas until late in the project and so a method for sharing accurate data related to poverty statistics and student populations needs to be established. Additional weighted factors include: number of single parent families, education of parents, proportion of newcomer and refugee families and students on personalized learning/behaviour plans.

For schools serving mixed neighbourhoods that also offer French Immersion, consideration should be given to calculating the threshold based on the English Prime classes. Streaming based on neighbourhoods was noted between the English and French classes. Thus, the English classes bore the responsibility for the students living in poverty.

External support services to education should be reviewed so that resources are allocated based on need, not numbers. This includes distribution of personnel for Speech and Language, Child and Youth Teams, Integrated Service Delivery teams and Social Development.

2) More autonomy is given to Districts and schools for how resources are used

Funding decisions made by the Department of Education and Early Childhood need to be prioritized in consultation with teachers, administrators and District personnel. The decision-making process is ‘top-down’ with little discretion for how funds will be used at the District and school level. Indeed, districts have little say in what projects will be adopted as most are mandated by provincial priorities. Projects and initiatives affecting student support, curriculum and methodology should not be undertaken at the Department level without the support of school and district personnel.

The high-cost of education in New Brunswick is somewhat due to managing a Francophone/Anglophone system with the Anglophone system offering three programs defined by language offerings – Early Immersion, Intermediate Immersion and English Prime. If this status quo is not to be changed, and adequate funds are to be found for classrooms, monies must be diverted away from projects and positions deemed unnecessary by school and district educators.

Related to this is the need for more transparency. Provincial and district budget details should be shared with schools so that teachers and administrators understand how funds are allocated.

3) Focus monitoring and accountability on growth, as well as overall student achievement.

Early into the project district personnel realized that simply comparing averages from year to year was not sufficient. Schools expressed concern that the transient nature of their population made it difficult to track cohorts from year to year. Schools reported a high-proportion of students transferring between schools (often more than two schools in a year). As well, an end-of-year average did not measure growth that may be apparent from the start to end of year. In order for districts and EECD to more accurately measure the impact of initiatives a student database in which standard assessment data is entered has to be available. **Schools which are able to close the achievement gap, despite barriers due to poverty could then be identified and examined in-depth.**

Given the relationship between collective efficacy and data, i.e., that collective efficacy increases when school teams can see their efforts validated by data, attention should be given to identifying reliable and valid assessments. Teachers required data that could be used to inform flexible grouping, target instruction and diagnose problem areas – and administered quickly so that check-ins with at least a few students could be done daily. Any implementation of a data and measurement system needs to be done so with teacher input.

4) Teachers and administrators serving high-poverty neighbourhoods have opportunities for common professional learning

Although administrators often have common meeting time and professional development, opportunities for teachers to meet with other staffs have decreased in past years. It also became apparent that administrators in priority schools needed to meet regularly to share strategies. Regular meetings for priority school principals were implemented during the first year of the project. Research on class size often reiterates that a smaller class, without changed methodology, does not produce results. Staffs expressed interest in meeting with others who serve similar student populations to share information about the various models and interventions (e.g., team-teaching, cross-grade groupings) and instructional strategies.

Professional learning should focus on developing the principles identified in Section IV, as well as information related to poverty. Working with families and children affected by poverty requires empathy, knowledge, resilience and a willingness to dispel myths and stereotypes. The principles identified in Section IV are:

Data is used effectively and instruction is targeted for flexible small groups
Behaviour issues are addressed pro-actively

Oral language is foundational for early literacy and must be modeled intentionally
Ownership of students is shared among staff members
Staff demonstrates collective efficacy, believing in their ability as a team to make a difference
Relationships with students, parents and the community are foundational for success

5) Focus parent events on learning activities experienced between parent and child

Building and maintaining a positive relationship with parents is crucial in any school, but more so in schools serving high-poverty neighbourhoods. The relationship must, at times, navigate the involvement of other government agencies and departments (e.g., Social Development) while keeping communication open between the school and home. Schools are often required to take on the role of parent educator, and struggle with how to present information related to parenting skills, and school preparedness (e.g., attendance, homework, home experiences related to literacy and numeracy). Events must be low-risk, non-threatening learning activities that parents can experience with their children.

6) Review the model for Speech and Language services in schools to address the needs identified in high-poverty neighbourhoods

Schools serving high-poverty neighbourhoods have an increased need for speech and language services. Language delays are evident before school and so early identification and preschool support is crucial. The current clinical model in schools is not serving enough students and has little connection with classroom teachers. In order to impact curriculum and methodology speech and language services need to include a focus on language development for Tier 1 (general classroom) and Tier 2 (small-group) intervention. The process for allocating Speech and Language therapists needs to be more clearly defined so that those with highest needs are prioritized.

7) Forge a better partnership between Social Development, EECD and School Districts

At times frustration, and at times uncertainty, was expressed when working with Social Development on family issues that affected school success. Attendance issues and a transient school population due to housing and family instability were the two concerns most often cited. Guidelines as to when Social Development should intervene with cases related to attendance should be established. It is understood that the relationship between the family and school is paramount but schools require a partner when taking on the role of educating parents.

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Appendix 1: Socio-Demographic Profiles Prepared by Human Development Council

	Seaside Park	St. John the Baptist - King Edward	Prince Charles	Princess Elizabeth	Centennial	Hazen White - St. Francis	Glen Falls	Saint John (City)	Saint John (CMA)	Anglophone School District South	New Brunswick
Population Aged 0-4	4.70% 366	4.60% 184	5.40% 339	5.10% 236	5.60% 311	14.70% 112	5.30% 132	4.80% 3,245	5.00% 6,255	4.90% 8,240	4.60% 34,365
Population Aged 0-14	15.10% 1,169	12.10% 488	14.90% 933	15.60% 717	15.20% 841	35.20% 268	17.40% 435	14.90% 10,045	16.10% 20,305	15.90% 26,740	14.80% 110,495
Population Aged 65 Years and Over	18.70% 1,448	13.30% 537	14.40% 903	20.00% 924	18.00% 999	8.50% 64	17.00% 425	19.20% 12,965	18.20% 22,950	18.90% 31,890	19.90% 148,785
Proportion of Lone Parent Families	26.10% 579	32.30% 289	38.40% 532	30.30% 364	34.00% 477	45.60% 89	29.30% 216	23.10% 4,325	17.90% 6,625	17.40% 8,660	16.20% 36,185
Proportion of Lone Parent Families Among Families With Children	44.20% 579	58.80% 289	65.90% 532	48.70% 364	55.90% 477	57.50% 89	46.50% 216	40.30% 4,325	31.80% 6,625	31.50% 8,660	30.90% 36,185
Median Household Income (Before Tax)	\$54,261	\$34,225	\$30,563	\$44,694	\$35,146	\$23,160	\$48,015	\$52,132	\$63,737	\$61,471	\$59,347
Median Household Income (After Tax)	\$49,170	\$31,519	\$28,505	\$40,305	\$32,976	\$23,199	\$43,031	\$46,795	\$55,847	\$53,967	\$52,553
Poverty Rate (Low Income Measure, After-tax)	20.20% 1,515	41.70% 1,609	48.90% 2,918	30.50% 1,299	40.20% 2,111	79.30% 600	26.80% 671	22.50% 14,755	16.70% 20,650	17.40% 28,765	17.10% 123,820
Child Poverty Rate (Low Income Measure, After-tax)	32.60% 450	65.90% 369	64.90% 738	49.80% 412	58.00% 567	94.20% 282	44.00% 220	33.60% 4,050	23.10% 5,695	24.00% 7,810	22.20% 29,250
Proportion of Renter Households	36.90% 1,246	86.90% 1,910	82.80% 2,702	58.00% 1,187	73.40% 2,107	85.60% 240	27.70% 323	44.50% 13,435	29.70% 15,700	26.90% 19,120	25.00% 79,865
No High School Diploma, Certificate or Degree	20.30% 1,272	21.10% 707	30.30% 1,523	19.90% 727	24.10% 1,116	47.40% 233	26.40% 569	19.40% 10,775	17.30% 17,810	18.40% 25,465	22.00% 136,745
Labour Force Participation Rate	62.80% 3,931	63.80% 2,140	56.10% 2,859	58.60% 2,136	57.10% 2,644	34.50% 170	56.00% 1,205	61.60% 34,150	62.90% 64,945	62.10% 85,920	61.50% 381,790
Movers (last year)	12.30% 896	28.90% 1,106	20.20% 1,123	18.50% 800	21.10% 1,162	31.40% 211	11.70% 292	15.50% 10,055	12.20% 14,860	11.70% 19,055	11.40% 82,720
Movers (last 5 years)	35.70% 7,307	62.90% 3,832	53.80% 5,552	45.60% 4,319	49.40% 5,497	56.60% 671	30.60% 2,495	39.20% 24,355	32.60% 38,200	31.50% 49,360	30.90% 215,325

Source: Statistics Canada 2016 Census of Population

Appendix 2: Formula for FTE Allocation

Differential Funding Formula

FTE was first distributed to achieve a teacher to pupil ratio of 1:12 for the K-2 population in each school. This left 4 of the 20 FTE to be distributed using weighted criteria (1 was kept to address any staffing needs arising through the year). Seaside Park has the lowest poverty rate. It is also a large school and required 4 FTE to achieve the 1:12 ratio. For this reason it was not considered in the allocation of the remaining 4 FTE.

Criteria was based on information available to us and weightings were based on funding formulas used in BC and AB. We recognize the limitations of this approach and acknowledge the additional research required to fully devise a differentiated funding formula.

1. Criteria 1 – Poverty Rate

Poverty rates as defined in Child Poverty Report Card, HRDC, 2018

North 44.4%

South 48.7%

East 22.1%

West 17.2 %

The west was used as a base rate. Therefore, the East is 4.9% above this base, the South 31.5% above, and the North 27.2% above. This rate above the base was then applied to the projected 2019-20 k-2 enrollment to determine the number of students more adversely affected by poverty.

Glen Falls –4.9% of 77 students = 3.7

Prince Charles – 31.5% of 41 students = 12.9

SJBKE – 31.5% of 82 students = 25.8

Centennial – 27.2% of 107 students = 29.1

PES – 27.2% of 96 students = 26.1

HWSF – 87 students = 23.7

2. Criteria 2 – EAL and Refugee students

It is understood that Refugee students as a group are more adversely affected by trauma than the general EAL population, and so are calculated using an additional .5 weighting.

School	Total # of EAL students (including Refugees)	Refugee with .5 weighting	Weighted # of EAL students
Glen Falls	5	2/5 = 1	6
Prince Charles	11	7/11 = 3.5	14.5
SJBKE	14	5/14 = 2.5	16.5
Centennial	16	8/16 = 4	20
PES	31	17/31 = 8.5	39.5
HWSF	32	30/32 = 15	47

3. Criteria 3 – Students on individualized learning plans, behaviour plans and requiring Transition to Kindergarten meetings

Note: this represents only those students officially diagnosed and identified by ASD-S and/or Social Development in the K-2 years.

School	# of Special Needs
GF	7
PC	5
SJBKE	13
C	12
PES	14
HWSF	11

Weightings

School	# of students Adverse Poverty	.35 Weighting	# of EAL with Refugee Weighting	.2 Weighting	# of Special Needs	.2 Weighting	Total Weighted Score (% of total weighted scores)	% of 4 extra FTE
GF	4	1.4	6	1.2	7	1.4	4 (5%)	.2
PC	13	4.4	14.5	2.9	5	1	8.4 (10%)	.4
SJBKE	26	9.1	16.5	3.3	13	2.6	15 (18%)	.7
C	29	10.15	20	4	12	2.4	16.5 (20%)	.8
PES	26	9.1	39.5	7.9	14	2.8	19.8 (24%)	.96
HWSF	24	8.4	47	9.4	11	2.2	20 (24%)	.96
							Total 83.7	

Appendix 3: Parent Survey

School _____

Your school is part of an exciting project in Saint John! Additional teachers have been added to your Kindergarten, Grade 1 and Grade 2 classes in order to provide extra help for students and families. We want to know if this is making a difference for you and your child. Please help us by filling out this short survey and returning it to your child’s teacher. If you have more than one child in these grades, please fill out **one survey for each of your children** in Kindergarten, Grade 1 and Grade 2.

I am completing this survey for my child in: Kindergarten Grade 1 Grade 2

Please answer all questions for this school year only.

1.	Strongly agree	Agree	Disagree	Strongly disagree
I feel welcome at my child’s school.				

2.	Strongly agree	Agree	Disagree	Strongly disagree
My child enjoys school.				

3.	Too easy	Just right	Too difficult
My child’s work is usually....			

4.	Strongly agree	Agree	Disagree	Strongly disagree
When my child has difficulty learning, there is enough help at school.				

5.	Strongly agree	Agree	Disagree	Strongly disagree
I have enough information about my child’s learning.				

Any additional comments about your child’s experience at school this year

6. Please check any that apply.	Math	Reading	Writing/Spelling	Getting along with others	Speaking or Listening
This year I got ideas for how to help with....					
I would like ideas or more information for how to help with....					

7. Please check any that apply.	Parent-teacher Interviews	Concert or Assembly	Special event for reading or math	Sports event	Other event or meeting
This year I have gone to.....at my child's school.					

8. Please check any that apply.	Parent-teacher interviews	Report card	Agenda or Homework book	Face to face conversation	Sending notes	Phone call	Text message
How do you and your child's teacher communicate?							
What are the top THREE ways you prefer to communicate with your child's teacher?							

Do you have suggestions on how we can help the school and families work together?

Thank you for the time you took to fill out this survey! We appreciate it!

Appendix 4: Teacher Survey

Teacher Survey for *When Children Succeed*

Thank you for your assistance this past year with the data collection required for the *When Children Succeed* project (e.g., student assessments, teacher interviews, parent surveys). As a result of data collected thus far, some themes have started to emerge regarding classroom environment and instruction. I do understand that the effect of the project has varied in degree from school to school, and even class to class. However, I am interested in your perceptions of the project thus far. This will serve to inform the analysis of the qualitative data, as well as provide direction regarding future data collection and project implementation. If you wish to submit any written comments, please feel free to do so.

Please indicate the extent to which a reduced student-teacher ratio this year has changed your teaching practices compared to previous years without this additional support. If this is your first year with a classroom, please use your student-teaching/supply experiences as reference points.

Please circle your school and grade level: Centennial Glen Falls Hazen White/SF Prince Charles

Princess Elizabeth St. John the Baptist/KE Seaside Park

Kindergarten Grade 1 Grade 2

Compared to previous years...	Strongly Disagree	Disagree	Sometimes	Agree	Strongly Agree
1. I spent more time teaching rather than managing the classroom.	1	2	3	4	5
2. I was able to administer formative assessment more often.	1	2	3	4	5
3. I spent more time in individualized and small-group instruction.	1	2	3	4	5
4. I was able to differentiate instruction more easily.	1	2	3	4	5
5. *Item removed – see note below	1	2	3	4	5
6. I spent more time in conversations with individuals and small-groups.	1	2	3	4	5
7. I included more hands-on activities.	1	2	3	4	5
8. Students had more choice in activities.	1	2	3	4	5
9. I am more enthusiastic about my teaching.	1	2	3	4	5
10. I was able to communicate with parents more frequently.	1	2	3	4	5
11. I collaborated more with colleagues.	1	2	3	4	5
12. I was able to be more pro-active with student behaviour problems.	1	2	3	4	5

13. My colleagues and I engaged in more shared responsibilities for students (e.g., between classes, cross-grade).	1	2	3	4	5
14. My colleagues and I discussed student assessment data more frequently.	1	2	3	4	5
15. My students made greater progress.	1	2	3	4	5
16. My students were more motivated to do well.	1	2	3	4	5

*Item #5 was revised but two schools had the original version of the survey. Item was not tallied for results below.

Results (83% of surveys returned)

Item	Agree or Strongly Agree
1. <i>I spent more time teaching rather than managing the classroom.</i>	67%
2. <i>I was able to administer formative assessment more often.</i>	82%
3. <i>I spent more time in individualized and small-group instruction.</i>	86%
4. <i>I was able to differentiate instruction more easily.</i>	80%
6. <i>Compared to previous years, I spent more time in conversations with individuals and small-groups.</i>	86%
7. <i>I included more hands-on activities.</i>	90%
8. <i>Students had more choice in activities.</i>	82%
9. <i>I am more enthusiastic about my teaching.</i>	85%
10. <i>I was able to communicate with parents more frequently.</i>	72%
11. <i>I collaborated more with colleagues.</i>	74%
12. <i>I was able to be more pro-active with student behaviour problems.</i>	82%
13. <i>My colleagues and I engaged in more shared responsibilities for students (e.g., between classes, cross-grade).</i>	58%
14. <i>My colleagues and I discussed student assessment data more frequently.</i>	70%
15. <i>My students made greater progress.</i>	76%

16. *My students were more motivated to do well.*

78%

Appendix 5: Interview Questions

Differential Funding: A Blueprint for Success in NB Schools – Staff Interview Questions

Introduction

Recognizing the impact of poverty on children’s education has led the partners in this research project to advocate for additional teaching staff at the K-2 level in Saint John’s priority schools. The intention is to achieve lower pupil-teacher ratios than would be attained through the traditional funding model. In most cases this is realized through smaller class-sizes or co-teaching models. An additional or alternative approach is to provide specialist staff for small-group intervention.

The data around class size is controversial but most researchers who summarize large-scale studies agree that the benefits are most apparent for students from low-income neighbourhoods, and are best implemented in the early grades. The study most often referred to (STAR from Tennessee) identified small classes as 13-17 pupils.

The supporters of this project have a broader objective; specifically, to affect policy regarding how NB funds education. Moving to a differential funding model would not only consider factors such as poverty, but would also afford schools more independence around spending decisions.

The following questions are based on factors identified in the literature as critical for the success of “small-class” initiatives, as well as issues regarding differential funding models.

1. Thinking back over your first term, what is the impact of the additional staff on your classroom and school?
2. Have there been any changes in your instructional strategies as a result of the additional staff, either by you individually and/or collectively as a K-2 staff?
3. Have there been any changes in parental engagement as a result of the additional staff? Are there any new initiatives in place – e.g., attendance, home support?
4. What supports or services do you think are needed to best address the unique challenges faced by your students?

5. Data from the Fraser Institute 2017 reported NB as having the third highest per-pupil spending in Canada for the 2014/2015 school year. We might not need to spend more, but do we need to spend differently? Where would you redirect resources if schools had more autonomy in spending decisions?

Differential Funding: A Blueprint for Success in NB Schools – School Administrator Interview Questions

1. How has the additional staff impacted your school this year? Have you noticed any changes in classroom management and instructional strategies?
2. What barriers, if any, have there been to making the most use of the additional staff?
3. What has taken place at your school this year to foster parent engagement?
4. What recommendations do you have for us when implementing a funding formula based on student-need? (Have you worked in any jurisdictions where schools were funded according to a differential funding formula? If so, what positive/negative aspects did you experience?)
5. What supports/services are required to best address the challenges faced by your students? Is there a better way to provide these services to schools, e.g., changes in delivery-model, process of accessing services?
6. New Brunswick's per-pupil spending was ranked third in the country according to Stats Canada 2014/2015. We may not need to spend more, but do we need to spend differently? From where would you redirect resources if you had more autonomy over education funds?
7. Anything else on which you would like to comment?

Appendix 6: School Snapshot Questions

Section 1 School Profile – to be completed by principal

of K-2 students (by program if applicable), # of classes/classroom teachers, brief description of class configurations (e.g., single teacher, shared, co-teaching)

of Short Term Intervention students

of ins and outs (transfers)

of EAL students and refugee students

Section 2 – Info for me but not to be shared in public format – to be completed by principal

Sample Class or Grade profile

of special needs, EAL, behaviour needs, students below grade-level, flight-risk, toileting, etc.

Section 3 – To be completed by school principal

What makes teaching in schools in high-poverty neighbourhoods both particularly rewarding and challenging? What would you like politicians and other educators to know about your experience?

Section 4 - Administrator View

What changes have you seen in your school as a result of the project – effects on school as a whole? (See Teacher View prompts as ideas as well.)

Section 5 - Teacher View (Please forward these questions to your K-2 teachers.)

What changes have you been able to make in your classroom practice due to the additional teachers?

What effect has the project had on student achievement? Student behaviour? Student confidence/motivation?

What effect has the project had on your connection with students/families?

Has the project had any effect on your beliefs about teaching and/or your students?

Section 6 - Parent View

(Is there a parent(s) who might be able to give you a quote regarding their experiences with the smaller classes/additional support?)

Section 7 Brief Description of a parent initiative

Appendix 7: See attached PDF document

When Children Succeed: Analysis of five terms of data

Completed by Derek Gaudet, External Researcher