

Expecting the best from Everyone

*Recommendations for a 10-year education plan
(Anglophone sector)
Final Report
June 2016*

New Brunswick
Nouveau Brunswick



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Published by:

Province of NB
PO Box 6000
Fredericton, New Brunswick
E3B 5H1
Canada

June 2016

978-1-4605-1280-7 (print edition)
978-1-4605-1281-4 (PDF: English)

10686

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Chapter 1: Introduction

The purpose of the provincial education plan is to establish objectives and expectations for public education in New Brunswick. It sets out the general directions that guide the initiatives and actions of those who work in the education system to ensure our children succeed at school. Under the *Education Act*, the Minister of Education and Early Childhood Development is responsible for developing a provincial education plan for each linguistic sector. Traditionally, the department works with school districts and District Education Councils (DECs) to develop a plan that covers three to five years. In this case, the provincial government committed to developing a 10-year plan through a broad public engagement process. To that end, I was asked, as a co-chair, to conduct this large-scale engagement and call on major players in the education sector and system partners using a non-partisan approach. The process was to result in recommendations serving as a foundation for the development of the next education plan.

Passion... This word describes how New Brunswickers feel about public education. During the consulting phase, they spoke from their hearts and minds. Families, teachers, school and district leaders, students, community leaders, business leaders, parents and concerned individuals made submissions, wrote newspaper articles and met together providing thoughtful and reflective facts and opinions on the needs for the future of public education. They completed 3,412 online surveys, sent 258 submissions from schools and made 70 submissions. Many participated in 13 provincial

open-house sessions and several workshops hosted by District Education Councils (DECs) and Parent School Support Committees (PSSCs). Many teachers, principals and others met me one-on-one.

Thank you for the opportunity to engage in thoughtful discussions and opportunities to learn from creative, intelligent, progressive, caring and hard-working New Brunswickers. It has been a privilege and honour to do this work on your behalf.

From the first focus group meeting until the last consultation, certain themes emerged. Some of them have been addressed in previous consultation reports. Many findings align with recommendations made to provincial governments during the past 25 years. I appreciate and recognize these recommendations as well as the important research and effective practices followed in schools. Throughout this report, an attempt will be made to align some of the earlier reports to identified current needs. An important component and goal of these recommendations and supporting evidence are to create an understanding of the critical attention that must be made to focus and align systems, strategies, supports and resources to the needs of children and youth. This work will rely on having all adults who touch the lives of young learners being accountable for the efforts that will be needed during the next 10 years.

The recommendations are summarized into areas that need immediate and long-term attention:

- 1 **Systems** – Creating overarching, evidence-based processes, practices, accountability and monitoring with strong governance and leadership for needed reforms. These include areas such as high school programming, graduate expectations and attention to an overall child-centred culture of high levels of learning.
- 2 **Early childhood** – Investing in early childhood education and support for families and children (from birth). This must align with Early Childhood Task Force recommendations; include coordinated and effective services that eliminate duplication and red tape; and build an understanding of the value of education.
- 3 **Meeting the needs of children and youth** – Increasing our effectiveness at addressing mental health, poverty, physical fitness, nutrition, addiction and school attendance. This will be accomplished through appropriate support services and resources for families and children, equitably in all communities in a culture of inclusivity.
- 4 **Honouring First Nations (Indigenous people)** – Ensuring that the education-related Calls to Action from the Truth and Reconciliation Commission of Canada’s final report are implemented in New Brunswick and a culture of mutual understanding and respect for First Nation (Indigenous people) is a priority in the next education plan.
- 5 **Prioritizing what we want students to know and be able to do** – Providing clear, rigorous expectations for student achievement that are aligned to global competencies (such as

critical thinking, problem-solving, hands-on learning, communication, citizenship, entrepreneurship, application of knowledge, inquiry and exploratory-based learning); and ensuring that educators are highly skilled in delivering the necessary instruction, assessment and interventions needed to support a globally competitive level of learning for all students.

- 6 **Learning: School culture, leadership and teachers** – Expecting all schools create the necessary conditions for high levels of student achievement, built on a focused direction, collaborative cultures, deep learning and accountability with appropriate support and resources to build strong school leaders; and built, furthermore, on competent educators and support services teams.

New Brunswick has a unique culture of partnership with unions, businesses, community organizations, post-secondary education and volunteers. We have organizations that offer innovative and culturally rich opportunities recognized by others as leaders in their field (e.g., Sistema, Atlantic Ballet Theatre of Canada, Brilliant Labs, Science East, New Brunswick Association of Community Living, Elementary Literacy Friends [ELF], Partners Assisting Local Schools [PALS], Atlantic Education International [AEI], Canadian Parents for French). I saw community school initiatives that embrace flexibility and creativity to solve issues around school sustainability – putting health centres, daycares, senior centres and other resources in schools to share spaces. I heard of community and business partners that have challenged the norm and are organizing and leading opportunities for students to support learning. As strong as these

partnerships are, they cannot replace the fundamental responsibility of the provincial government to ensure needs-based funding and adequate staffing to meet the needs of children and youth.

I heard about inconsistent expectations, procedures and decisions, varying by provincial department, district and school. The current governance structure creates a complicated role for superintendents who officially report to the DEC’s but receive funding, resources and direction from the provincial government. With each election, provincial governments have made decisions and changed direction that affect student learning. I learned that the lack of continuity and evidence-based decisions as a province are perceived as a critical risk by those in and outside of the system.

We live in a culturally diverse province, with a rich First Nation population, Anglophone and Francophone heritages, and roots in many European and other countries, all of which define New Brunswick. Through immigrant strategies bringing newcomer students to our schools, our diversity of cultures and languages is growing; so are our opportunities to learn. We must understand each other, appreciate our differences and celebrate the opportunities that this mosaic of cultures provides to all. And critically important, we are known as a “caring” province, and our school system has a strong reputation of nurturing and caring for students. We must live up to this reputation and provide consistent direction with the necessary support to children and youth.

The report aspires to lay a thoughtful and sustainable roadmap before decision-makers and to encourage all New Brunswickers to see a long-term

education plan as everyone's responsibility. These recommendations are my best attempt at identifying the priorities and focus necessary to develop a culture of learning built on evidence-based, effective practices and research. An important component will be for the provincial government to provide continuous opportunities for collaboration around the next education plan. There is great will to share ownership of the next education plan and to see this develop, grow, monitored and adjusted over 10 years based on evidence of success, expertise, research and collaborative structures. New Brunswickers do not want an education plan "housed" or owned at the department level. This must be part of an overall change in how we do business.

I was asked many times if I could guarantee that these recommendations would actually lead to an education plan that could outlast elections, political agendas as well as personal opinions and influence. I know there is no guarantee. However, from all conversations, submissions and research, I can state, with confidence, that, as a province, we do not have a choice. The intent of this initiative was to fully engage New Brunswickers in a non-partisan manner and that the resulting plan would span across the next 10 years, regardless of the political landscape. For this, I have hope, and I believe it is possible.

Karen Power, Co-chair, Anglophone sector

Chapter 2: Systems for success

A culture of learning

The people of New Brunswick, all of us – families, learners, teachers, school leaders, district leaders, civil servants whose roles touch children and youth, political parties, union leaders, universities, community colleges, business and community leaders, media...all of us – we must accept the responsibility to change our mindset about learning. It is a critical time for a shift in our expectations. It is time that we all “own” learning and work together to support learners to achieve high expectations for their development. Learning is about early childhood environments, schools and what happens beyond the four walls of the school. It is about removing the roadblocks that impede learning and developing strong policies, guidelines, standards and daily practices that support learning at a high level. It is about understanding the role of family, community, government, early childhood services and school districts. It is about supporting and empowering families, educators and leaders to do the work necessary at the learner level. It is about ensuring that the processes and people are aligned to meet the needs of learners with wrap-around services. And, it is about all persons understanding the importance of fuelling the innate curiosity and need to learn, the value of education and the need for learners to have high expectations for their growth.

Leading educational researchers and practitioners have long called for a balanced focus on a few key outcomes that relate to stronger teaching and learning. Certain educational imperatives, which have been articulated in credible educational research, include:

- High expectations for learners in schools;
- High levels of student engagement and motivation;
- An appropriate personal connectedness between adults in the school system and the students they serve;
- Effective curriculum, both formal and informal;
- Positive relationships with parents and the broader community; and
- Timely supports for students in need.

This focus and balanced approach of a few key outcomes are clearly aligned with the need to create a strong culture of learning that can be sustained for the benefit of all.

Since 1992, several consulting reports about education have been commissioned, and many of the recommendations made before are aligned to the recommendations in this report. In *Schools for a New Century*, James Downey and Aldéa Landry wrote:

"There is widespread belief that significant change is needed in our education system. Some say that the schools are not doing enough to assist students to develop their individual talents and reach their full potential. Still others believe that educators are not preparing students sufficiently well for productive and successful economic lives. There seems to be a consensus that the answer to this dilemma is not a narrow curriculum focus on 'the basics.' Central though the basic skills of reading, writing and arithmetic remain, and essential though their mastery is to all educational pursuits, they are no longer, if they ever were, enough. The challenge is greater. It is to cultivate in all children the capacity to think for themselves, both analytically and creatively, to communicate effectively, to know where to find and how to use knowledge, and to develop a pleasure in the arts and sciences of knowing that will make them lifelong, adaptable learners. To achieve this, our schools will need the support of a social culture that values education and the various kinds of excellence education makes possible. High performance is nourished by high expectations. Expect a lot and you increase the likelihood of high performance. The other point I wish to stress is the necessity of creating in New Brunswick an environment conducive to the development of an education culture, a culture based on and centered in learning. If the only place educational reform is achieved over the next few years is in our schools, then it will not last."

(Downey, J., A. Landry, 1992)

In *Schools Teach – Parents & Communities Support – Children Learn – Everyone Benefits, A Study of the Anglophone School System Carried Out for the Provincial Government*, Elana Scraba found:

"This study concludes that there are complex systemic issues needing attention in the New Brunswick education system."

(Scraba, 2002)

She recommended the minister of the day:

"...develop a culture of learning and achievement, communicate effectively and involve the community, plan for change and stabilize the system, develop an accountable education system and address structural and systemic problems over time."

(Scraba, 2002)

Once again, the need to create a culture of learning was identified as a key component to student success.

During the past few years, leaders in every sector of society, including the private sector and government, have been mobilized to promote and foster a vision for learning. *Learning: Everybody's Project* was established to engage persons who shared a love of the province and were passionate about creating a solid foundation for the future. Participants agreed that promoting a learning culture had to be an absolute priority. The *Initiative on Learning* was developed to engage the public, communities and organizations to make New Brunswick "Canada's learning province." Its recommendations included:

- improve collaboration between the education system, education organizations and businesses involved in learning;

- enhance coordination of available learning programs and services throughout New Brunswick;
- improve access to learning opportunities;
- strengthen organizational capacity for continuous improvement of learning programs; and
- increase community and citizen participation in learning opportunities.

(Learning, 2013)

These recommendations clearly articulate the same needs that will form many of the recommendations of this report. It is imperative that we accept the "call to action" and develop the systems and supports for learning.

Finland received worldwide recognition for its ability to support high student achievement through a strongly developed culture of learning. During this consultation, many New Brunswickers referred to the Finnish model. There are many fine examples of successful models from countries such as Finland, and it will be important to learn from other provinces and countries as we improve education practices. To achieve this, it will be important for provincial government decisions, government departments, funding models and all actions to be aligned to promote high expectations for learners and all adults in the system based on common definitions. This work must begin with an evidence-based strategic plan. Using Change Management principles, this plan must be turned into action through effective, research-based systems, procedures and practices.

Discussion during the consultation was focused on building an evidence-based, decision-making

system with a learner-centred culture. Participants expressed the need to create high expectations, excitement for learning and creative and innovative opportunities for all students to master skills and competencies for success. There was recognition that, as we increase the level of expectations of students and staff, we must balance this with increased levels of support for students and for staff. Psychologist Lev Vygotsky (1962) defined the zone of proximal development (ZPD), as the difference between what a learner can do without help and what he or she can do with help. The level of support, guidance and mentoring that can be provided in our province will be critical to the success that we will have as we raise expectations.

As we begin to think about the development and sustainability of the next education plan, it is highly

recommended that it be collaboratively developed and continuously monitored. A sustainable, long-term plan for improvement and success should be “owned” by key representatives of early childhood services, DECs, districts, schools, post-secondary institutions, service providers, all political parties, communities and the provincial government. In the essence of time, first-year decisions that can effect change should begin centrally, and years 2 to 10 should be monitored through a guiding coalition of stakeholders. Mid-course corrections, an accountability framework and continuous dialogue on progress should be part of the implementation. Year 1 work can begin with a focus on developing a Performance Management system that would be evidence-based and action-oriented. This should be aligned to a model that will ensure equitable funding for the most vulnerable learners, schools

and communities as well as place high priority on staffing to meet the needs of all learners. All decisions, including contract negotiations and staffing, should be made with a learner-centred, evidence-based focus.

The role of the provincial government is to set the priorities and then ensure deep support for the work to be done at the community, district, school and classroom level. There is a critical need for this document to go beyond being a consultant report; it must lead to planning by the provincial government. For a long-term education plan to have impact, it is necessary to establish and maintain shared ownership.

Importance of Formal Management

According to Kotter International, a leader in Change Management, 70 per cent of all strategies fail despite the best intentions. How can the Department of Education and Early Childhood Development maximize its chances of success? What will this plan define compared with its predecessors? How will we, as the system, match expectations and results? Research shows that strategies fail because organizations do not have a structured process for implementing Change Management, communicating strategy, ensuring accountability, prioritizing initiatives, reviewing progress made, following up on results and supporting improvements. Formal Management is a tried-and-tested approach that organizations can use to meet these challenges. If we want to transform the system and produce better results,

Formal Management must become entrenched at the department level as the first step in long-term planning, implementation and monitoring of the next education plan. Formal Management will allow the system to meet the education plan's expectations, promote improvement, produce results and move the province to becoming a world leader in education and early childhood development.

In 2013-14, the Department of Education and Early Childhood Development adopted a Formal Management system. This model consists of five components: Strategy Management, Initiative Management, Process Management, Daily Management and Performance Management. These elements are interconnected and crucial for organizational

success. With deep implementation of a Performance Management system, the department can make choices and focus exclusively on actions and projects that will help it meet identified needs. It would allow leaders to be judicious in considering requests before committing resources. In the past, good intentions notwithstanding, the department scattered its efforts across too many initiatives. This approach leads to projects that are never completed or take so much time to carry out that they become irrelevant. The goal is to work on fewer initiatives while ensuring they are completed in a timely manner, add value to the organization and obtain results. The department's ongoing work on a balanced scorecard will also help to monitor regularly progress toward its strategic objectives. To date, the department has measured student

performance annually. However, progress must be more regularly tracked, using measures tied

to learning at the learner and classroom levels, to know much sooner whether things are moving in

the right direction and to take action immediately if this is not the case.

Change Management

Successful education systems understand the importance of change. For New Brunswick to develop and implement a long-term education plan, it is necessary that Change Management be understood and sustained throughout the implementation of the recommendations. In the past, we have experienced many changes; however, we have not had a systematic understanding of the need for Change Management. This includes communication of the changes. The best systems maintain an ongoing dialogue on systemic reform. Canadian researcher Michael Fullan was invited to contribute to a forum held in New Brunswick this year. His vision of the deployment of change, and the strengths needed to ensure we stimulate and nurture change, were warmly received by participants.

To implement the next education plan, it is crucial that change take hold and that systems, supports and practices be in place so leaders can build on a solid knowledge foundation. Change must be conceived system-wide, not piecemeal. According to Fullan, the challenge is forming a whole from these few elements. This is the subtle nuance of systemic reform, in his view. It is difficult to achieve because it is rooted in social complexity, in that it depends on people with different goals and skills who are learning to do new things together. The principles of leadership and durability are particularly relevant here, with a leader's main task being to train other leaders who can then help build collective expertise and solve problems as they arise.

The provincial government has begun to equip its leaders with an understanding of Change Management. It must own the responsibility of leading an effective change process for the next education plan to have impact. Effective change takes many change leaders. Principals will play a significant role in ensuring that their school is able to create the learning culture needed for student success. The role of the school leader will be discussed in Chapter 7.

In summary, one of the key messages of this chapter comes from the many comments heard during the consultations – the education system must be willing to change. It must have well-developed processes, policies and practices that are deeply understood, well communicated and supported in such a way that implementation is possible as intended. Critical to this is the need to have

Recommendation

Sustain and implement a student-centred, evidence based education plan

Ensure the sustainability and deep implementation of a student-centred, evidence-based 10-year education plan that is “owned” by the people of New Brunswick by:

- creating a governance structure that includes representatives of stakeholders, including early childhood service providers, District Education Councils (DECs), schools, service providers, post-secondary institutions, communities, families, students and all parties of government to provide guidance and expertise to monitor deep implementation and accountability of the plan;
- developing a funding model and human resources support structure to ensure actions are deeply implemented to meet the needs of learners;
- aligning all government decisions, including contracts and accountability for these decisions with the work identified in the plan;
- using performance-based management strategies supported by change leaders for long-term implementation of the plan;
- continuing the focus on formative assessment practices at the provincial, district, school and classroom level to frequently monitor student performance and ensure timely interventions to meet the needs of learners. Doing so will ensure the plan is working;
- considering, with an open mind, the parameters around the definition of “the school” and “the school day” as opportunities to explore creative and flexible ways to support learning;
- increasing flexibility and autonomy at the school and district level to create authentic accountability for meeting the needs of the learner as per the plan.

evidence for decision-making and monitoring for ongoing effectiveness.

Lastly, while strong provincial leadership is important, early childhood, district, school and community stakeholders must form a strong coalition;

creating leadership and strength for change from the “middle.” In our case, the middle is the districts and their schools, a better partner for both the top and the bottom. They are the glue that will hold the project together. The DEC’s must have their independence and dare to initiate change

while achieving the overall goals of the system. Where this plan is concerned, once the major objectives have been established, the districts must drive the initiatives that will lead change. If they succeed with their new initiatives, their successes can inform the system as a whole.

A system of support

A supportive environment, as close to the learner as possible, starting at birth, is necessary. A focus on early literacy and long-term support for literacy, mathematics and science are important. Innovation, creativity, problem-solving and critical

thinking must be part of a daily instructional design that is differentiated to meet the needs of all learners. Progress must be closely monitored. Centres of learning can be created to ensure effective practices are researched, practised, modelled and

replicated. Each district should work collaboratively with partners and the provincial government to build expertise in more than one area. Our province is rich in opportunities and examples of innovative solutions; however, many remain

Recommendation

Define the roles and responsibilities of educators

Develop a strong, collaborative system of support for all educators, school-based leaders and learners by:

- defining the professional job expectations of an educator and aligning this job description to the skills and competencies needed to meet the goals established in a 10-year education plan;
- providing ongoing professional support to educators and support the development of their skills in accordance with this job description;
- reviewing the *Education Act* to ensure it aligns with the roles, responsibilities and actions associated with the 10-year education plan;
- ensuring that educators are highly skilled in differentiating instruction and response to intervention as well as creating cultures of learning to meet the diverse needs of learners;
- ensuring that school leaders are highly skilled as instructional leaders and that they can provide feedback and support to educators with effective instruction and assessment practices;
- providing opportunities for school leaders and educators to deepen their understanding of the value and work of collaborative teams;
- expecting all educators and school leaders to work collaboratively and share ownership of the needs of their learners;
- developing centres of learning in each district that require action research and provincial leadership in at least one action item from the education plan. This work will be led at the district level and built from a guiding coalition of school, district, university and department educators and community partners;
- creating systems of support through coaching, mentoring, demonstration sites, model classrooms and schools and opportunities for educators and leaders to learn from each other in localized, hands-on learning environments;
- working with post-secondary institutions to align course options and professional learning opportunities with the skills and competencies needed by educators and school leaders;
- establishing a self-regulating professional governance structure to oversee certification, licensing, discipline and professional learning opportunities for educators;
- developing a school leaders’ network and professional structure to provide action research opportunities, leadership skill development, mentoring and the sharing of effective practices among school leaders.

“hidden” as they have not all been seen to be in compliance with acts, policies and procedures outlined by the provincial government. Teachers and principals identified a need to have ongoing support and opportunities for professional learning in differentiated instruction and on ways of creating school and classroom environments that meet the needs of diverse learners. Some of this work has been started; however, ongoing support must be strengthened for staff and learners.

Throughout the consultation, the level of support for educators and school leaders was of immediate

concern. Educators and school leaders felt that decisions by the provincial government have prevented them from deeply meeting the needs of learners. This has caused a great deal of stress on the system. New Brunswick has not had a consistent plan for leadership development or teacher professional learning for many years. Alignment of teacher education and professional opportunities is needed in schools and classrooms to deliver the recommendations in this document. This should also be reflected in mentoring, coaching, classroom observation protocols, school reviews and professional growth monitoring of educators

and school leaders. The roles of the school leader, educators and support staff in ensuring compliance with the actions established in the next education plan should be made very clear. Staff certification, licensing and continuing contracts should be aligned with the needs identified in the education plan, and a self-governing body should be established to support the professional growth and development of educators and school leaders. In many provinces, educators and school leaders professionally monitor their own work to ensure continuous learning and effective practices.

Focus and direction

To address the overall needs of learners, we must first focus on the barriers and challenges that exist throughout the system. There is a misalignment of policies, goals and plans throughout the four districts. Ends Policies of District Education Councils (DECs), district-operating policies and school procedures and practices are not all aligned provincially (Ends Policies define the results expected in a given district). With good intention, superintendents have led initiatives and set direction based on what they believe is best for their district. Implementation and application of provincial policies have been locally interpreted, and monitoring of effective practices and expectations has not been well defined. As we create high expectations, a provincial culture of learning and strong support for learners to develop the skills and competencies they need, stabilizing the levels of change and sticking with initiatives so that deep implementation can be accomplished must be a priority. As we continue to expect educators to work collaboratively at the pre-school, school level and beyond to plan instruction and

meet the needs of students, there must also be provincial collaboration between departments, districts, partners, communities and schools to make decisions based on evidence of success. We must stay focused on the essential work; deeply implement and monitor the established priorities; and align all education-related policies and actions to student success.

Provincial direction on effective classroom and school practices are well defined by the indicators of effectiveness used in the Anglophone school review process. Nearly all Anglophone schools participated, collecting data, comparing their findings with those of the external review team and then engaging in a formative process with the external reviewers. Data from the reviews were intended to inform adult actions to improve schools. In 2015, the provincial government eliminated the school review process. Despite the research-based indicators of success clearly articulated through the review process, there did not appear to be consistent application of the

data or effective monitoring practices to ensure overall school success.

During the consultation, there was much discussion about the governance structure and district amalgamations. Superintendents and DECs play critical roles in providing district leadership. They are responsible for setting and monitoring Ends Policies as well as district education plans. The councils are also responsible for the annual evaluation of the superintendent. Superintendents receive direction from the councils and through policy at the provincial level.

It is important that the role and responsibilities of the provincial government, districts and DECs become clear in the initial implementation of the plan. The “what” will be defined by the plan, and the DECs will be able to support the plan through their Ends Policies and district education plans. District initiatives must be aligned to accomplish the goals of the plan.

Recommendation

Foster collaboration among the provincial government, educators and districts, District Education Councils (DECs)

Clearly define roles, responsibilities, expectations and monitoring of authentic collaboration between the provincial government, early childhood service providers, Anglophone districts and District Education Councils (DECs) with the goal of supporting children and youth by:

- redefining roles and responsibilities and re-staffing where needed based on the following:
 - meeting the needs of our diverse children and youth (including early childhood and newcomers) through collaborative structures, integrated services, well-planned and implemented individual learning plans as well as timely and appropriate interventions for all learners;
 - ensuring that instruction, assessment and curriculum become one unit that provides clear direction on effective, engaging instruction. This will ensure learners understand the learning goals and are supported in achieving at a high level through self- and formative assessment practices, classroom management and curriculum;
 - encouraging and establishing partnerships that support a 10-year education plan. This includes inter-departmental, post-secondary, districts, schools, early childhood and community partners;
 - ensuring that family and student support includes mediation and conflict resolution; and
- re-establishing professional learning for teachers and school administrators as a priority for long-term sustainability, leading to a self-governing structure for professional growth and monitoring.
- ensuring evidence-based decisions and Performance Management structures support the change process;
- ensuring that district Ends Policies and district and school improvement plans and initiatives are aligned with the education plan and a provincial monitoring plan;
- creating opportunities for Educational Services to work more closely with Finance, Facilities and technology to align decisions to meet student needs;
- developing a communication portfolio to support proactively the building of a culture of learning with families, educators and school and early childhood leaders.

High school renewal

During the past 10 years, many student focus groups and interviews, principal and teacher meetings, and consultations with parents and the public, have discussed the high school program. In 2014, for example, five focus groups of students discussed needed improvements. They identified more flexibility and choice as the primary need, emphasizing that the “cookie cutter” programming and curriculum required of students are not appropriate for all learners. They felt that this flexibility and choice must start earlier than at present and allow for individualized study options to meet diverse

learning needs. They described a need to be more challenged and have more rigorous learning outcomes and expectations. They described needing more hands-on and experiential learning tasks and an overwhelming need for quality career guidance earlier in their high school program.

Overall, the results of these focus groups are consistent with our findings during this most recent consultation. There is an urgent need to address the lack of rigour, relevance and engaging program options for high school students. They articulated

their desire to be more engaged in their learning and to seek more opportunities for student-relevant content. They wanted to have flexible schedules, more opportunities for entrepreneurial studies, apprenticeship models as well as science, technology, engineering and mathematics (STEM) components. They knew they must be exposed to more opportunities to create, analyse, problem-solve, think critically and explain their thinking. In some ways, there is a disconnect between what students articulated about their desired high school experience and teachers’ perceptions of what students want school

to be. In submissions and interviews, teachers often focused on attendance and classroom management as well as the content they must teach. They said attendance and classroom environment issues are real and must be addressed. Student ownership of their learning leads to deeper engagement and this, in turn, improves attendance and behaviour. In other words, it is critically important for schools to provide the right conditions for active learning to engage and retain students.

It will be important to create high expectations for creative, engaging learning opportunities

for these students. Expectations that align with the skills and competencies associated with the New Brunswick graduate profile are described in Chapter 6. This chapter also articulates the need for high levels of student engagement and the important relationship between students' personal goals and their levels of interest in school. This work must be addressed provincially. As one student described it, "we might need to turn our whole high school experience upside down, give it a good shake and create a new and improved culture." High school teachers will need support to develop higher-order thinking skills, questioning

strategies and instructional strategies to engage learners. Student self-reporting and goal-setting are evident in some classrooms. Teachers and students co-construct criteria for successful learning with appropriate rubrics and scoring guides. Cultural opportunities, e-learning, apprenticeships, mentoring, skilled trades, coding opportunities and entrepreneurial experiences were a few of the strategies discussed by students during this consultation. Teachers should be supported to provide these kinds of learning opportunities. Consistent accessibility for active and engaged learning should be an expectation in all high schools.

Recommendation

Improve high school programming (Year 1 and Year 2)

Make immediate changes to high school programming and learning opportunities for students by:

- working closely with principals, teachers and students to plan first steps in innovative ways to create flexibility and creative options for study. This should include looking at how and when students learn;
- describing the instructional expectations needed to support student mastery of New Brunswick graduate profile competencies and immediately begin a professional learning strategy to deliver this type of instruction;
- developing observation protocols with principals and teachers to ensure quality feedback is provided to teachers based on instructional expectations;
- ensuring all students establish goals and self-assess their learning progress on a consistent basis as part of their school experience;
- revisiting the e-learning and technology opportunities offered to students, beginning with data to determine the best fit within an array of flexible learning opportunities;
- working closely with post-secondary institutions to create more opportunities and equitable access for students to know about and pursue post-secondary studies in the province;
- seeking opportunities for equitable access to flexible and engaging options for students in small schools, more vulnerable communities and in schools of high need;
- ensuring curricula and learning settings provide an abundance of opportunities for application of knowledge, experimental learning and authentic and engaging lessons to support skill development;
- including exposure to skilled trades, the arts and other electives to provide choice based on personal goals and interests;
- ensuring guidance counsellors have the knowledge, time, resources and networks to better provide career counselling, information about post-secondary options and the wrap-around support needed by all students;
- collaborating with the Department of Post-Secondary Education, Training and Labour as well as post-secondary institutions to respond to student needs with accessible entry to appropriate programs;
- creating centres of learning for innovative, engaging programming that can serve as models and demonstration sites for other schools;
- providing timely, ongoing support and professional learning so that teachers can work in teams to meet the needs of students;
- providing more opportunities for students with learning and physical disabilities to have flexible options, apprenticeship opportunities and hands-on learning tasks.

Our K-2 focus

There is a need to address the perception of the overwhelming number of K-2 learning outcomes and the perceived (or real) issue of the amount of time that teachers have to provide instruction, assessment and remediation. Young children present themselves to kindergarten teachers with various levels of readiness for learning and social skills. During the three primary school years, teachers are expected to develop a culture and framework for learning in young children; deeply embed foundational literacy skills; and provide instruction and support in other content areas, including mathematics, integrated units in social studies, science, health education, music, art and physical education. One of the significant changes in these years is the type of learning we want for our children. For example, in mathematics, we have moved to prioritized outcomes focused on students investigating and learning to think about their work. This is the appropriate direction when we consider the skills that we want to develop; however, we must take into consideration that this type of instruction, especially in the early years, takes more time than traditional “sit and get” instruction. Children can learn on their own, work in small groups and do the thinking. This is happening in many primary classrooms and must continue to be our focus. Teachers work to release gradually responsibility of learning to students. Well-planned lessons start with an engaging environment that opens learning opportunities for all students that may include direct instruction, guided practice and independent practice. One example is guided reading groups that are part of many classrooms. This strategy takes knowledge and organizational skills on the part of the teacher to ensure that students are

able to work independently and within groups at meaningful tasks with high expectations. Teachers work with one group of students as other students work in small groups or independently. Expertise in this strategy must continually be reinforced and understood.

The New Brunswick school day for K-2 students is considered short compared to most other jurisdictions in Canada and the United States. The length of the school day is defined in the collective agreement with the New Brunswick Teachers' Federation/ Fédération des enseignants du Nouveau-Brunswick. It has become increasingly important for all parties involved to consider either increasing the length of day for K-2 classes or providing more direction and support to teachers on the priorities of skills and content that must be explored during the first three years. These years are critically important to long-term success of students. Flexible timing for these children might be considered with some taking more than three years to engage in this learning.

From 2004 to 2010, New Brunswick dedicated support and resources to students and teachers in the early years. Foundational skills in literacy were supported with professional learning for teachers and additional human resources. Teachers were provided with more professional learning in reading instruction, and a balanced literacy program was continuously supported. Currently, it seems there are less support and fewer resources for students and teachers yet curriculum outcomes and amount of time to meet the needs of students are unchanged. Ideally, all early years teachers would be literacy specialists or at least be supported and

expected to develop competencies in understanding literacy instruction. It is critically important that teachers be equipped to teach mathematical concepts and skills. Building foundational skills in mathematics and literacy must form the basis of early years instruction.

The National Council of Teachers of Mathematics takes the following position on the teaching of mathematics at an early age:

“Young learners' future understanding of mathematics requires an early foundation based on high-quality, challenging and accessible mathematics education. Young children in every setting should experience mathematics through effective, research-based curricula and teaching practices. Such practices in turn require that teachers have the support of policies, organizational structures and resources that enable them to succeed in this challenging and important work. Research on children's learning in the first six years of life demonstrates the importance of early years experiences in mathematics.”

(National Council of Teachers of Mathematics, www.nctm.org)

In summary, early years are foundational to establishing a culture of confident learners who have mastered basic skills needed for continuous learning. As discussed in Chapter 4, there are increased mental health and learning needs in the early years, and we must ensure the alignment of expectations, time, support, expertise and resources as a priority, receiving immediate attention by the provincial government. This important work

continues our focus on early childhood and represents the need for significant investments for quality instruction; appropriate time to maximize

learning; increased support for diverse learning needs; and frequent formative assessment and documentation of learning to ensure students

are meeting the learning targets and receiving appropriate interventions.

Upper elementary

Teachers in upper elementary classes need and must receive professional learning to continue the support for literacy, mathematics and sciences. They must have a strong understanding of the learning progressions and have the resources to meet the needs of students who come to them

with learning gaps. As we focus on K-2, we cannot do this at the detriment of upper elementary classrooms. Children in grades 3 to 5 will need continued support in literacy and the development of inquiry-based learning, critical thinking and problem-solving. Upper elementary classes

must provide rich opportunities for children to apply their learning; for example, using their new literacy skills to work with more complex texts and to write about their thinking in all content areas. It also represents an important time to begin citizenship awareness and global education.

Recommendation

Strengthen programming in the elementary grades

Ensure primary classrooms (K-2) are structured to provide maximum opportunity for each learner to be successful (especially in learning to read and write) and upper elementary classes continue to strengthen this work by:

- establishing instructional time for K-2 learners that is comparable with other provinces;
- considering a more play-based curriculum focus for kindergarten;
- supporting K-2 educators to deepen their understanding of how to build foundational literacy and mathematics skills and concepts. Extended time may be required to deliver engaging lessons with investigative thinking and problem-solving; ongoing formative assessment; and incremental steps toward self-regulation and independent learning;
- revisiting the Early Years literacy support that was in place from 2004 to 2010 to examine human resources allocation and other supports for teachers and students who made this a successful implementation;
- ensuring teachers have competencies needed to provide quality instruction in mathematics;
- ensuring planning and partnerships are in place for supportive transitions into and within school;
- ensuring K-2 classrooms are well supported with adults who can recognize strengths and provide intervention and remediation immediately when needed;
- providing K-2 and upper elementary teachers with sufficient support and resources to ensure strong instructional practices in the foundational skills of literacy;
- partnering to provide required health supports, including easy access to speech language pathologists, guidance counsellors and mental health workers, as well as volunteer programs and other community initiatives to support learning;
- partnering with the Department of Social Development and communities to communicate student physical and emotional requirements such as connectedness, nutrition, adequate exercise and sleep.

Middle school

When we think about innovative, hands-on and experiential learning, one often thinks of the adolescent needs in middle school. This age group provides unique opportunities for hands-on, creative and challenging learning tasks as well as a high need for engaging, student-centred learning cultures. As the link between elementary and high school, middle schools are critical for supporting life-long learning and activating student interest in college and careers. Following the Downey/Landry report, New Brunswick embraced the middle school philosophy. Many middle schools are still creating highly functioning, collaborative cultures with a focus on student-led conferencing; student-self assessment; hands-on and project-based learning opportunities; and skill trades and opportunities for students to explore and differentiate their learning. Inclusive cultures for activities and sports are in many schools. Parents report that they still feel connected and involved in their child's school. It is important for schools

to revisit the “middle school philosophy” to ensure they have the structures and opportunities recommended for adolescents.

In addition to this focus on learning culture, educators must be well-equipped to continue the development of literacy and science, technology, engineering and mathematics (STEM) components while integrating units based on the arts, social studies, physical education and languages. Many teachers have asked for professional learning for teaching reading and writing skills for students with deficits. They have asked to receive more professional learning in differentiated instruction and interventions. Working as collaborative teams of educators to meet the needs of their students is a highly successful practice. Time must be provided for teams to meet and review their data and other evidence from student learning for planning instruction, assessment and interventions.

Students should be exposed to entrepreneurial opportunities, financial literacy and career guidance. Students begin to make career decisions in middle school, and the curriculum and lesson design should reflect as many opportunities as possible to increase exposure to a variety of careers, post-secondary pathways, an understanding of entrepreneurial thinking and financial literacy. Technology and skilled trades are engaging ways to support learning outcomes and are highly encouraged for middle school. Of critical importance to students are relationships. In all grades, the relationship between the student and adult is significant, and in middle school it seems to have enhanced importance when considering student engagement and their ability to be successful. Educators are known to create caring environments, and this ability is truly valued by students.

Recommendation

Develop a middle school focus

Develop a strong middle school focus to ensure adolescents develop the skills and competencies in the graduate profile by:

- revisiting the middle school philosophy to ensure students have collaborative, hands-on, innovative and engaging lessons as well as an entrepreneurial and experiential learning-focused school;
- providing opportunities for students to be exposed to a variety of college and career learning opportunities;
- supporting educators as they develop strong student-teacher relationships;
- providing schools with adequate resources, collaborative working time and professional learning to support their teams and to deepen their understanding of the needs of this age group.

Class size and class composition

During the consultations, questions were raised about the need to continue to reduce class size and to address class composition. In Chapter 4, I will address many of the root causes and explore the needs affecting the composition of diverse classrooms. Again, flexibility and resource support are needed at the district and school levels to allow for site-based decisions to meet the needs of learners. Teachers must know when, where and how to get support, and they must have the resources needed to ensure a positive, safe learning

environment for all. Policy 322, Inclusive Education (2013), will also be discussed in Chapter 4, and the need to ensure that it is being understood, applied and implemented appropriately to best meet the needs of all learners.

Class size varies from school to school. In New Brunswick, it is limited through collective bargaining; however, many provinces do not have limits. Some schools have very small classes (as few as four students). Others, depending on the school

community, population and program, have classes at capacity. The most important variable appears to be classroom composition and the teacher's skills and expertise in differentiated instruction and classroom management. For this report, I focused on the support needed for learners and educators as well as the need to have flexibility and autonomy at the district and school level to deal with the issues arising when dealing with the needs of learners.

Storm days

As part of the consultation, several reports about storm days were reviewed, including a most recent New Brunswick committee report, and the status of storm days in other provinces. Some provinces cancel bus routes. In provinces with rural communities and winter weather similar to ours, schools are rarely cancelled, and the decision whether students attend is left to families. In New Brunswick, there does not seem to be an acceptance for moving in this direction. For the most part, the Atlantic region is the only part of the country that closes schools due to weather and does not require teachers to report to work on these days. New Brunswick teachers have bargained for the right to stay home when school is cancelled.

This plan focuses on changes needed that truly affect the learner. As we develop a more collaborative, learner-focused culture, it may be important for teachers to reconsider their position about their attendance at school on storm days. There seems to be an ongoing public concern that storm days take away from the energy and focus needed to pursue the excellence owed to learners and that, at the very least, teachers could use the time at school to plan collaboratively and engage in professional dialogue.

Chapter 3: Early childhood education

One message, communicated by all groups, at all levels and in all sectors during consultations, was the importance to invest in early childhood education. The public is calling for a system that will be a gateway to childcare as well as a learning gateway for families and their children. The message from the public and community partners is that a 10-year education plan must direct the provincial government to provide more support for children in a more systematic way and earlier in life. Childcare services must be valued and supported as an investment in children.

Parallel to our work, the Child Care Review Task Force, initiated in June 2015, has explored in even more depth the issues surrounding early childhood. Its recommendations will have to be combined with mine to develop an integrated plan for early childhood education. With these two consultation processes, the provincial government has a unique opportunity to create a comprehensive strategy for establishing a robust early childhood education system accessible to all. Against a backdrop of limited resources and difficult economic times, investments in early childhood education will be well-placed, serving as a cornerstone for long-term economic and social prosperity.

Recommendation

Integrate the recommendation of this report with those of the Child Care Review Task Force

A 10-year education plan must combine the comments, thoughts and recommendations in this report with those in the more detailed and in-depth report of the Child Care Review Task Force by:

- ensuring that the recommendations in the task force and in this report are given immediate attention to create the early childhood culture of learning needed in New Brunswick;
- providing opportunities for stakeholders in early childhood to be directly involved in the creation of the education plan.

Effective public policy

Research shows public policy on early childhood can be pivotal in reducing gaps in development that often begin in the early years (Friendly, 2000; Willms, 2002; McCain, Mustard & McCuaig, 2011). These gaps put children's development at risk and generate major economic and social costs. In New Brunswick, where a significant percentage of adults struggle with less than functional literacy skills, proactive, systemic policy is of prime importance.

Research also shows that the most effective public policies for early childhood are those that take the child's overall development into account (McCain & Mustard, 1999; Landry & Rouselle, 2003). Knowledge of research and promising practices will lead to child-focused educational practices, services and care as well as sustained parental support services and increased partnerships with communities.

In 2008, the provincial government adopted *Be Ready for Success: A 10-Year Early Childhood Strategy for New Brunswick*, including a vision: New Brunswick aspires to have the best network of integrated, high quality early childhood programs and supports in the country.

The goals and themes of the strategy remain relevant and important, based on what stakeholders said.

Goals:

- All of our young children are happy, healthy, curious and ready for success in school and in life.
- Parents are able to work or pursue training, confident in the knowledge that their children are well cared for in high quality, stimulating environments.
- All communities are engaged in the implementation of local strategies and initiatives to meet the needs of their families and young children.

Values:

- Children are owed the best possible start. They are born with a natural tendency to explore and learn and, with support and encouragement from their families and communities, will continue to do so throughout their lives.
- Parents are their child's "first teachers" and the sustaining force behind their child's

initial adjustment to school and later success in school and in life. A responsive, positive loving relationship with a parent or caregiver is critical for a child's sense of security and emotional well-being and their capacity to flourish in all areas.

- A child's successful adjustment to school does not simply happen during the first few months of kindergarten, but is an ongoing series of small successes. A child's ability to make a smooth transition to school and to continue to adjust successfully in later years is based in large part on the child's social and emotional well-being, which lays the groundwork for the child's healthy development in all other areas. A secure, happy child is much more likely to have the capacity to develop solid language, early literacy and communication skills.
- Children are raised by families but they grow up in neighbourhoods and communities. All play an important role in the healthy development and overall well-being of our children.

(Be Ready for Success: A 10-Year Early Childhood Strategy for New Brunswick, 2008)

Harmonized policies between the federal and provincial governments

Education and childcare are mainly a provincial government responsibility, but the federal government plays a role. The University of Toronto's Institute for Studies in Education produces an

annual report on the status of early childhood education in Canada. It notes that federal policies that support parents, and the funding provided through provincial grants, have an impact that is

not insignificant; however, these remain disconnected. The dream of a comprehensive national policy, with a shared vision, supporting early childhood, is still elusive.

Recommendation

Encourage continued collaboration between the federal and provincial governments

A 10-year education plan must include immediate collaborative efforts with the federal government (which has given signs that it is committed to the development of the early childhood sector) by:

- proposing that pilot projects be carried out in New Brunswick, the only officially bilingual province, that will increase accessibility, training and program quality;
- accessing all available federal resources to support children and their families in New Brunswick.

Toward a common understanding of ‘early childhood’

The term “early childhood” does not mean exactly the same thing to everyone. A broad view, including early childhood education, childcare services and all infrastructures and resources that support the education of young children inside and outside of the public education system, provides the best opportunities for innovation and alignment (*Linguistic and Cultural Development Policy – A Societal Project for the French Education System*, 2014).

The provincial government follows the United Nations Educational, Scientific and Cultural Organization (UNESCO) in defining early childhood as the period from birth to the age of eight. This new outlook is being adopted by numerous countries, and it is understood that an approach that combines health, nutrition, care and education is more effective for enhancing the well-being and development of children than approaches limited to only one aspect. The former is more respectful of the child’s needs, and at the same time facilitates the establishment of an integrated network of services, care and education as well as increases cohesion of service delivery.

The results are improved sharing of intervention strategies and smoother transitions when the child moves from the family circle to other preschool environments and then to school. In other words, this approach favours the sharing of necessary information, access to user-friendly services for families as well as complementarity of services and programs. In addition, when services are delivered within an integrated network, it becomes easier to support children who have particular needs. By extending the early childhood period to the age of eight, continuity of services is improved, thereby increasing the chances for educational success. Traditionally, many services offered to children (such as specialized autism or speech therapy services) or family support services ended or were delivered in a non-continuous way once a child begins school.

The use of this definition implies a paradigm shift that will change how caregivers and educators work, involving the establishment of partnerships, an integrated service network and instructional continuity between programs at different levels

which will be more respectful of children’s overall development and needs. Furthermore, adopting this definition implies certain changes from kindergarten to Grade 3, where the instructional approaches will have to be aligned with the child’s development, and where greater collaboration with external agencies (daycare centres, specialized services, etc.) and with families will guarantee the best possible start for the child.

Again according to UNESCO (2000), integrating early childcare with education creates many advantages for children, parents, caregivers and educators, in addition to allowing for more effective management of the system. In New Brunswick, structural integration is already in place. Harmonization of practices is still under development.

An accessible, effective and integrated network of services

Early childhood services fall under various umbrellas, such as health, social services and education. Examples:

- prenatal services;
- services for infants;
- early childhood services;
- family support and resources;
- education from kindergarten to Grade 3.

These services are the responsibility of multiple provincial government departments and, sometimes, of public agencies. In many cases, they are offered by not-for-profit organizations and the private sector.

Challenges

The Ontario Institute for Studies in Education describes the key elements in an Organisation for Economic Co-operation and Development (OECD) meta-analysis of early childhood care in 20 countries over eight years. The main challenges identified in all of the countries:

- limited coverage;
 - some families do not receive the services to which they are entitled;
 - the location and cost of services pose obstacles;
 - opening hours of services and parents' work schedules often do not match up;
 - families with various needs find the services fragmented; and
 - families lose necessary services when children get older or their condition changes.
- Service providers face challenges as well:
- there is no continuity of contact with families during the early years of their children's lives;
 - inflexible mandates and funding criteria prevent service providers from offering consistent support;
 - services are funded on the basis of performance, not results, which makes it difficult to match services to the needs and situations of families;
 - services generally focus on treatment rather than on prevention or promotion of healthy development.

(Starting Strong II: Early Childhood Education and Care, 2006)

A number of these findings echo those issues raised in New Brunswick. These issues will need to be considered by the Child Care Review Task Force and reflected in the plan. Despite the amalgamation of the Department of Education and Early Childhood Development, many worthwhile initiatives are fragmented, reducing their full impact; programs are not completely aligned; and management and accountability between the central offices in Fredericton and employees of the DEC's are yet to be clarified.

Considerations for an integrated service delivery system

It is important for children from birth to the age of eight to receive the best start possible and to develop the necessary skills to help them succeed in school. An integrated network of educational and wellness services allows for a comprehensive approach to child development and family support

through collaboration and information sharing among the education, health, social services and community sectors. The underlying principles of an effective integrated network are that all early childhood services are interdependent and complementary, and that formal communication

processes are essential. For effective service delivery, the various partners need to share a common vision and understanding of the integrated network concept. Partners must embrace certain common values such as collaboration and interdependence. They must also define their

organizational boundaries and staff roles in terms of the collaboration expected within a network of integrated services. The result will be optimum use of financial, human and material resources.

Indicators of success for an integrated network are the capacity to respond consistently to the needs of children and their families, beginning in the perinatal period; the ability of the partners to work together; and the timeliness and quality of the services offered.

It is essential for the partners to pay special attention to the specific needs of disadvantaged families because research shows links between socio-economic status and educational success. For children with particular needs, the effectiveness of the integrated services network is partly dependent on early screening. These children may be vulnerable in the sense that they may have difficulty meeting the cognitive, social or emotional demands of childcare service or school environment (Lareau, 2003; Lero, Irwin & Darisi, 2006). A system of prompt and accurate early screening, carried out by multidisciplinary and intersectoral teams, will help to identify the appropriate and necessary interventions while avoiding duplication of services.

In rural and urban communities alike, an effective network would include the establishment of a single entry point, simplifying access to the information and resources that families need. Creating a single identifier for each child, whatever the number and type of services received, promotes smooth transitions through every stage of the child's education. While the early screening system and the ensuing interventions are important for all children, an integrated services network is

essential for providing children who have particular needs with access to all resources in English or French with no wait time, as well as follow-up after they enter school. Whatever the nature of the need – a language problem, emotional difficulty, physical need, need created by giftedness or any other special need – an effective integrated services network will offer appropriate service in support of the overall development of every child.

Recommendation

Encourage collaboration among public and private institutions, families and the community

A 10-year education plan must establish processes for ongoing collaboration and partnerships among public and private institutions, families and communities by:

- building the interdependence and complementarity of early childhood services and access through a single entry point in both urban and rural areas and the coordination of an early screening system;
- sharing information and creating a single identifier for each child, used for all services received;
- providing smooth transitions as a result of continuity in the delivery of quality services at all stages of the education of children from birth to the age of eight;
- developing an integrated, seamless structure within the provincial government, districts and communities, giving districts primary responsibility for the delivery of early childhood services;
- ensuring districts are well staffed and supported to provide the required services;
- creating communication strategies that ensure families understand the services available to them.

Viability and accessibility of childcare services and return on investment

Research shows the importance of the first five years of life for the development of children's abilities as well as for their health and well-being. As a result, there has been growing interest in early childhood among governments, community

organizations and school officials. The findings are striking: when disadvantaged children attend quality childcare and have access to supports and services at a young age, they are less likely to be vulnerable in at least one domain of their

development when they enter school. It is clear that excellent early childhood services contribute even more actively to the educational success of children from disadvantaged backgrounds. Education partners have an obvious interest in this.

The immediate and long-term benefits of quality early childhood services are well documented. Investments in this area obviously create direct employment but, just as importantly, they support families for continued participation in the workforce and narrow possible gaps resulting from socio-economic inequalities. For families and the education system, it is less costly to identify and address learning problems at earlier stages than to take less effective action later.

The care and pre-school services that children receive at a young age prepare them to attain their potential during their school years. As a result, this care and these services are now considered part of an overall vision of education. Our consultations indicated that education and early childhood leaders are unanimous in recognizing the need for greater formalization of services. Some stakeholders suggested the integration of early childhood services in schools. They believe this would increase access, make services more responsive to communities,

reflect local realities and maximize opportunities for continuity among the services offered at the different levels of education.

Support is strong for the amalgamation of the Department of Education and early childhood services (formerly the responsibility of the Department of Social Development) that took place in 2010. This initiative to expand the education continuum is warmly applauded, and I hope to see this integration continue.

Return on investment

Kerry McCuaig and Elizabeth Dhuey carried out a study commissioned in connection with the Child Care Task Force. They provide an exhaustive picture of the viability, costs and benefits of childcare services in the province (McCuaig and Dhuey, 2015). I have come to the same conclusions: there is a need for more formalization, integration, and support for early childhood services, and the development of this sector has economic and social benefits for New Brunswick.

A fairness argument can be made as well, since parents' resources are not equal before their children enter the public school system at the age of five. The disparity between the resources of more and less affluent families can be considerable, and there is a risk that the inequity will grow during their children's pre-school years. An accessible universal childcare system enables parents to remain in the workforce and contributes to the development of the economy.

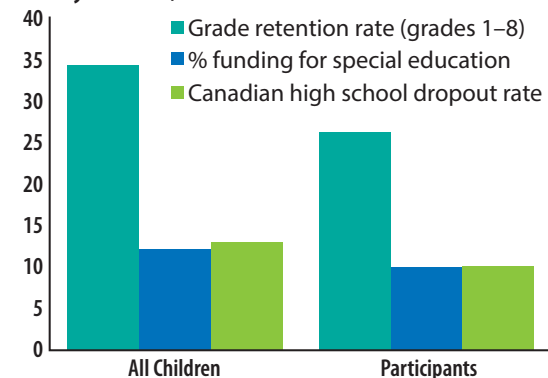
Estimates of return on investment in early childhood services range from 15 per cent to 50 per cent. The input provided by the people we met with during the past six months indicates families often have access to only a limited range of childcare services, which are poorly funded and have a future that is far from certain. Initiatives are often ad hoc, and there are major disparities and variability in the services available across and within regions of New Brunswick.

Early intervention makes it possible to reduce obstacles to learning, and this type of intervention is less costly to taxpayers the earlier it takes place. I am particularly struck by the arguments of Craig Alexander, vice president of economic analysis at the C.D. Howe Institute, and those of Pierre Fortin, an economist at the Université du Québec à Montréal (UQAM), in their analysis of the "economic" value of investment in early childhood. Their research shows that, in the long term, children whose needs are met will require fewer public resources during their lifetime than those whose needs are not met. There are therefore long-term benefits.

While politicians court investment in programs within the limited resources of the provincial government, the return on investment for an infrastructure that supports early childhood is undeniable and quite significant (Alexander, 2015).

Children who participate in early childhood programs have better academic outcomes (make better progress in the school system, need fewer extra resources, and are less likely to drop out) than those who do not participate in these programs.

Leading to better educational performances
Five-year-olds, %



Source: Child Care Human Resources Sector Council; 2005

Stakeholders and families communicated the need for greater accessibility to a broader range of services, less inequality among communities and affordable, quality services.

I did not explore in detail the issues and challenges facing the owners/operators of childcare services

and their relationship with provincial programs and grants, knowing that, parallel to our work, the Child Care Review Task Force had a specific mandate to do this. However, it is clear that the education plan must look at the delivery of these services and explore all possible options for developing the best system possible. Owners are

seeking more financial stability and the development of a long-term shared vision of childcare services by the provincial government. It will be left up to the task force to take a more detailed look at these issues and, specifically, at the solutions to be prescribed.

Recommendation

Respond to the diverse needs of childcare

A 10-year education plan must respond to the diverse needs for various types of childcare and should be supported by:

- working with families to understand the range of childcare needs, developing innovative models and quantifying the return on investment for childcare and other early childhood services to better communicate the immediate and long-term value for all;
- creating easy accessibility to flexible, quality childcare services for families in all communities;
- creating funding and resources that provide a needs-based response for vulnerable communities and families that most need support;
- developing deep understanding in districts and communities of the need to collaborate and integrate all services to meet the needs of the most vulnerable children and their families.

Welcoming and support for families

It is in the home, the first social context of the child even before birth, where the attitudes, behaviours and traditions that shape the child's overall development, including development of identity, are formed.

For the families to play their role fully, they must be offered orientation and support adapted to their particular needs, considering the diversity of family contexts. The situation of newcomer families also needs to be considered. I hope the strategies, structures and tools to be developed in response to this consultation will be centred on the ultimate goal of providing support to families in their role

as the first educators of their children. The foundation of a support strategy is a family-centred culture among the various early childhood service providers and educators as well as recognition of the crucial role that families play in the overall development of their children.

Targeted supports are required for some families, including those that lack confidence in their parenting skills; those with literacy challenges; parents within exogamous couples; single parents; those that are socially marginalized; parents newly arrived from another country; parents living in poverty; and parents of children with exceptionalities.

It is vital to have identification processes to ensure no family with particular needs is overlooked. The support structures must be customized to respond to the realities of the children and their parents. When parents receive the proper support and have positive experiences, they can fulfil their roles as well as contribute to social cohesion and the preservation and enrichment of their language, culture and individual family traditions.

It is essential that families are supported in ways that preserve their language and culture; that services and service providers fit themselves to the goals and heritage of First Nation families; and

that newcomer beliefs and values are respected. It is important to ensure that a partnership exists between early childhood service providers and newcomer reception centres, and those newly arrived in Canada, who may not speak either official language, be informed of available services and official language options.

It is beneficial for children to be in educational settings where they learn to live in harmony with children who speak another language or who differ

in other ways (McCain & Mustard, 1999; Shonkoff & Phillips, 2000). Early childhood welcoming and support structures must promote respect and openness with regard to the various linguistic, cultural, ethnic and religious origins of the families they serve, thereby creating an inclusive environment. Children realize the importance of their identity when they grow up in communities that promote fair and democratic attitudes, beliefs and values (Bennett, 2004).

Particular attention must be paid to low-income families to ensure that socio-economic or other challenges do not prevent them from receiving the full benefit of available supports. A difficult financial situation can curb family participation in the various activities offered through early childhood and school settings, undermining equitable outcomes for children (Bernhard, Freire & Mulligan, 2004; Lareau & Weininger, 2007).

Recommendation

Support parents as the first educators of the child

A 10-year education plan must support the parents of children from birth to the age of eight, as first educators of the child, to ensure they receive support, guidance, quality resources and information about their rights, enabling them to:

- choose childcare, services and education, starting in the perinatal period, that best suit their circumstances;
- participate fully in their child's education;
- contribute to the overall development of their child;
- fully play their role in fostering and disseminating their culture.

Recommendation

Support parents and families

A 10-year education plan must support the effective functioning of structures for:

- communicating with parents about the value of learning, school readiness and the importance of overall health and well-being for learning;
- raising the awareness of families about their responsibilities as first educators of their children;
- providing resources and information, and encouraging parents to enrol their children at birth in the district of their choice, thus increasing access to services throughout the education continuum;
- monitoring the use of support structures and resources and communicating with parents who are not accessing the support to determine next steps.

Human resources and training

If we as a society recognize early childhood as being crucial to the child's overall development, we must value the work of all who contribute to the development and education of young children as well as dedicate efforts toward the ongoing support of families (*Linguistic and Cultural Development Policy – A Societal Project for the French Education System*, 2014). The significant impact on language, culture, social cohesion and the economy, of professions in the early childhood field must be promoted to communities and decision-makers. Along with increasing awareness of this impact, we must develop personnel recruitment strategies and make more spaces available for initial training in collaboration with post-secondary institutions. These recruitment and training strategies must

provide skills and expertise specific to each field of early childhood services. For example, a strategy to recruit childcare educators will not focus on the

same skills as a strategy to recruit social workers although the core values of linguistic duality and inclusive society would be common for all.

Recommendation

Improve early childhood education, early intervention

A 10-year education plan must promote the value and effectiveness of early childhood education and intervention professions by:

- supporting the recruitment and retention of professional staff capable of working in English and French (depending on the sector) with children from birth to the age of eight;
- working closely with post-secondary institutions to ensure that early childhood education and intervention professionals have access to professional learning based on current, evidence-informed practices and to ensure that learning opportunities are delivered in a timely manner.

Chapter 4: Meeting the needs of children and youth

I heard and wish to validate the high level of concern for the well-being of children and youth. For the purpose of this chapter, “learners” represent pre-school and public school age children and youth. In this chapter, I will make recommendations toward these goals:

- to have healthy, well-supported learners and families living, studying and working in a province that offers a culture of inclusivity. Through all policies, guidelines and
- allocation of resources, the provincial government models and supports the value of healthy minds and bodies as critical factors for learning and overall lifelong success;
- that educators, families and students know how and when to ask for support in an integrated, coordinated and highly effective provincial support system;
- that responders are able to provide timely and effective interventions without barriers, red tape or restrictions.

About this chapter

Inclusive practice is not the norm in many parts of the country and around the world. New Brunswick continues to be applauded for the intentions of this practice. Recently, Policy 322 received the prestigious Zero Project award, which is given out by academics, policy experts and researchers from around the world (Zero Project, www.zero-project.org). It was chosen from among 333 nominations received from more than 100 countries as being the most innovative, progressive and leading edge in removing barriers. This work, however, comes with challenges, and it provides a level of complexity to classrooms. Recognition and extreme concern for this situation were apparent in the submissions by educators and parents in

the consultation process. We are developing a diversified culture, and this must be celebrated, supported and embraced as we embark on our journey of learning.

A significant challenge facing today’s schools and early learning environments is the variety of issues and circumstances that must be addressed. These include children and youth living in abusive, dysfunctional family situations, living in poverty, experiencing bullying, harassment and other forms of mistreatment, and suffering from mental health issues such as anxiety and depression. It is important that implementation of this plan addresses social and emotional root causes of these behaviours so

that we can build a successful education system with adults and learners who are well equipped to learn together. Educators are aware that there is much to be learned about student engagement and setting high expectations to improve learning. In submissions and interviews, they articulated how this professional work would be further enhanced with a collective focus on meeting the needs of children and youth to provide the most opportune conditions for learning. It is difficult to separate learning environment-based conditions

from what must be present for students to be open and ready to learn. These are all factors that we must consider and address in a strategic plan for improving New Brunswick's culture of learning.

This chapter represents a key area of focus in beginning to change the culture of learning. Educators, school leaders and support staff must have the expertise to plan for and provide strategies and interventions that target identified needs of individual students. They must be well supported

with the necessary staffing and professional learning. We must begin with effective, differentiated instruction of foundational social-emotional skills and learning competencies. And we must foster effective partnerships with parents and communities to provide adequate and timely support and resources where they are most needed to address the root causes of the behavioural, mental health, physical health and learning concerns of children and youth.

Protective factors of mental and physical health

Canadian studies suggest that 14 per cent to 25 per cent of children and youth experience significant mental health issues (*Mental Health Commission of Canada, 2013*). The World Health Organization (WHO) defines mental health as a state of well-being in which every individual realizes his or her potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. In its 2016 brief on youth mental health, based on the survey responses of 35,954 New Brunswick students in grades 6 to 12, the New Brunswick Health Council (www.nbhc.ca) provides current data and research findings to inform New Brunswickers and the provincial government of the actions needed in the province. The information in its report is used here as supporting evidence to confirm what was said in submissions and interviews throughout the consultation. First, the health council informs us that more New Brunswick youth seem to be affected by mental health issues than the national average. As an example, New Brunswick youths have a higher rate of diagnosed mental health or

substance use disorder and are hospitalized more frequently than the Canadian average.

This comes as no surprise to our educators. Overwhelmingly, this has been identified in surveys, submissions and interviews as a critical issue affecting learning. Meeting the academic needs of students is increasingly compounded by the state of mind and readiness for learning that they bring to the classroom. The health council's report provided evidence of the need for consistent, coordinated services and support for all communities. Despite the efforts of many support services, we continue to have increasing numbers of vulnerable families with children and youth going to school lacking the key factors for mental well-being and readiness to learn. The health council has also provided excellent evidence and research about factors of "resilience." Resilience is described as a person's ability to bounce back from adversity and to be able to access and make use of the right supports, resources and tools needed for positive mental health. The health council demonstrated

the need to focus on the protective factors (not just risk factors) in working with children and youth. Protective factors include interpersonal/pro-social skills, health literacy, nutrition, physical activity, reading skills and sleep. Risk factors include sadness or depression, anxiety, stress, chronic mental illness, problematic use of substances, including medications, heavy alcohol consumption, smoking, chronic illness, poor nutrition and physical inactivity. The health council's Child and Youth Resilience Measure indicates that only 67 per cent of youth have a moderate to high level of resilience. Girls scored higher than boys (70 per cent versus 64 per cent) and Francophone students scored higher than Anglophone students (74 per cent versus 65 per cent). Also of concern was the level of resilience reported by First Nation students, at 57 per cent. As we build strategies to support learners, it is important that prevention and root causes of issues be highlighted and addressed rather than focus entirely on interventions. Many New Brunswickers expressed the importance of targeted interventions to meet the needs of students.

I agree and support the creation of a culture of prevention as part of a culture of learning.

New Brunswick can provide policies, education, support and resources to lead the development of protective factors in all communities. Evidence shows that many services function in silos and are difficult for families and students to access. Many schools report having very little or no access to mental health and addiction support, and health-care providers are not available to provide health support services in schools. The underlying feeling of “silos,” lack of resources and misunderstanding of services seem to be hindering adequate support to the most vulnerable children and their families. The exceptions are the two pilot sites for the Integrated Service Delivery Model. In these regions, the waiting lists for services are short or do not exist, and there is a more coordinated and collaborative approach to meeting the needs of children and youth. This model should be appropriately staffed and applied to all regions. The provincial government has made a commitment to expand to Saint John, Miramichi and Restigouche-Chaleur by September 2016, and it is planning full implementation by 2018.

Schools and early learning centres can provide support through curriculum, programs, building relationships and instructional practices that model the protective factors; however, they cannot do this alone. We are at a critical time that will need a provincial focus of consistent education, community awareness, targeted supports and resources based on evidence and research. Just as

the fundamentals of literacy and other academic learning must be explicitly taught, so, too, must the fundamentals of mental fitness and pro-social behaviour. Forward-thinking educators have recognized this, however, there is still much work to do to support systemic culture shift. The situation is well-described by Eric Jensen in *Teaching with Poverty in Mind*:

“It’s impossible to overemphasize this: every emotional response other than the six hardwired emotions of joy, anger, surprise, disgust, sadness, and fear must be taught. Cooperation, patience, embarrassment, empathy, gratitude, and forgiveness are crucial to a smoothly running complex social environment (like a classroom). When students lack these learned responses, teachers who expect humility or penitence may get a smirk instead, a response that may lead teachers to believe the student has an ‘attitude.’ It’s the primary caregiver’s job to teach the child when and how to display these emotional responses, but when students do not bring these necessary behaviors to school, the school must teach them.”

(Jensen, 2009)

The following statements from the New Brunswick Medical Society affirm the above research and data:

“It’s clear that the fundamental role of education is to prepare New Brunswickers who can read, write and do well in math. As measured by standardized test scores, we are not doing well in some of these areas. There are many reasons for this which lie outside

of the classroom – poverty, food insecurity, a large number of children who have health concerns which necessitate individual learning plans, etc. We believe that the school system needs to think creatively about how to address literacy and numeracy scores by focusing on the enablers of student success. We are calling for a culture change that refrains from ‘doubling-down’ on more curricula, but instead addresses the factors that help students achieve – like a healthy mind and body.”

In addition to this statement, the medical society made the following recommendations: re-focus the school system “toward healthy behaviours and education; serving healthy foods in schools in compliance with Policy 711, Healthier Foods and Nutrition in Public Schools (2008); education on nutrition, cooking and healthy living; physical activity and enhanced physical education: the introduction of active classroom techniques; better education on mental health needs; a more progressive curriculum on sexual health; and a role of the school as a community hub for health education and healthy activities.

There were many other submissions that supported healthy food choices in schools, more education and understanding of “farm to table” food options, the need for nutrition education, and a more active lifestyle for all. This emphasis is an opportunity to provide focus and direction, integrate, and model, in and outside of schools and early learning centres, to accomplish better outcomes for health and well-being.

Recommendation

Strengthen protection of mental and physical health (Year 1 and Year 2)

Immediately remove the roadblocks and address gaps in mental health supports for early learning environments, in schools and in communities, and provide long-term prevention strategies by:

- increasing the expertise and staffing urgently needed to provide mental-health supports to children and youth in need, including school-based psychology, speech-language, mental health and addiction services;
- implementing the Integrated Service Delivery Model provincially and monitoring for effectiveness;
- ensuring that all learners have early identification of mental and physical health challenges and that they are provided with immediate and timely interventions to meet their needs;
- ensuring that all provincial services are coordinated and appropriately staffed to meet the needs of children, youth and their families. This includes eliminating duplication of services and moving needed services to vulnerable communities and schools;
- developing expertise to train educators on how to teach explicitly the fundamentals of mental fitness and pro-social behaviour, just as the fundamentals of literacy, critical thinking and physical education are explicitly taught;
- establishing a collaborative, provincial body of researchers and partners to work with districts and the provincial government to ensure that effective strategies for prevention and intervention are deeply implemented. Include provincially established targets, indicators and a monitoring plan to hold everyone accountable for student well-being. This should include mental health, speech-language and addiction services, physical activity, physical education and healthy food choices in schools;
- ensuring that parents and communities are part of the education and solutions supporting student well-being as part of a provincial culture of learning;
- increasing opportunities to support the most vulnerable communities and schools.

Understanding the influences of poverty

In the spirit of transparency, it is important to acknowledge that we have poverty in New Brunswick. In some areas, poverty is extreme. Ruby K. Payne, in *A Framework for Understanding Poverty*, provides the following working definition of poverty:

"...the extent to which an individual does without resources. These resources include financial, emotional, mental, spiritual, physical, support systems, relationships/role models and understands the unspoken rules and habits of the middle class."

(Payne, 2005)

Payne further says:

"...two things help one move out of poverty – education and relationships and four reasons that one leaves poverty include a feeling that it is too painful to stay, a vision or goal for a better future, a key relationship or a special talent or skill that is recognized and supported. Many individuals stay in poverty because they do not know there is a choice – and if they do know that, have no one to teach them the ways and means of accessing the support needed or

the ways in which to behave in a socially acceptable manner. In many cases, schools are the only places where students can learn the choices and rules of the middle class."

(Payne, 2005)

Generational poverty and situational poverty are different. Generational poverty is defined as being in poverty for two generations or longer. Situational poverty is shorter and is caused by circumstances such as divorce, job loss, death, illness, etc. New Brunswick has both types.

Poverty hinders learning. Teachers and support staff report increasing numbers of students living in poverty and see the evidence of the risk factors identified by the health council as having an increasing influence on learning. Schools are providing food and clothes as part of daily routines, and many teachers and support staff model generosity daily. Many teachers are working to increase their understanding of how to instruct, intervene and support the most vulnerable students and build trusting relationships. There are many examples of communities, such as the Saint John area, that are taking steps to address poverty and its affect on learning. Through combined efforts growing from two previous strategies, BCAPI (2000) and Vibrant communities Saint John Roundtable (2005), Living Saint John is focused on making a collective impact (www.collectiveimpactforum.org) to reduce and end generational poverty in Saint John.

In the words of Living Saint John:

“Saint John has learned a lot about how to reduce poverty. Our high child poverty rate, when compared to other cities in New Brunswick, is caused by generational poverty. The road to breaking the cycle is complex but simply put, our success lies in each child and family knowing they are important to our city’s future, that their talents are needed and that our community cares and is fully equipped to help them achieve their education and economic self-sufficiency. Our end goal: no child ever again will suffer a lifetime of poverty. Education, from cradle to

career, is the foundational plank that has brought together Saint John’s orchestra of organizations, their staff and volunteers to help children and families succeed. Closing the achievement gap for all students has become a goal for all of Saint John.”

(Telegraph-Journal, Nov. 10, 2015. Page A7)

The hard work and dedication in Saint John are beginning to achieve improvements as indicated by the Grade 2 literacy results in one school that has accepted targeted support. Proficiency moved from 40 per cent to 80 per cent in one year. This growth happens when districts, community leaders, supporting organizations and families work

together to build protective factors and meet the needs of children. The Living Saint John goals are to have 90 per cent of all children reading by the end of Grade 2 in 2017 and 90 per cent of all students graduating from high school by 2020. Living Saint John demonstrates high expectations, collective leadership and research-based decision-making as well as results-driven indicators. They are planning, implementing and monitoring their actions regularly to ensure success. We are fortunate to have many communities that have accepted “calls to action” to support children and youth. The Saint John strategy is just one example of the power of collaboration and focus by a group of dedicated individuals.

Recommendation

Understand the influences of poverty (begin in Year 1)

Based on leading and current research, the provincial government should lead the development of strategies to foster understanding of the causes and effects of poverty and the actions staff, learners and communities can undertake to halt the cycle of poverty and its roadblocks to learning. This should include:

- encouraging community development of initiatives and support to improve the lives of all;
- developing skills and competencies of educators and support staff to work successfully with learners affected by poverty;
- collaboratively developing education-oriented definitions of “vulnerable” community, school and classroom;
- using appropriate data to identify vulnerable communities, schools and classrooms and strategically plan and provide the resources for equitable, collaborative and effective support to meet the needs of learners.

Celebrating and meeting the diverse needs of students

Inclusionary practices

Overall, New Brunswickers expressed a belief in an inclusive education system. For the past 25 years, educators and support staff have worked diligently to provide opportunities for all students to participate fully at school – academically, physically, socially, emotionally and culturally.

EQUALITY vs. EQUITY



Equality = Sameness
GIVING EVERYONE THE SAME THING → It only works if everyone starts from the same place

Equity = Fairness
ACCESS TO THE SAME OPPORTUNITIES → We must first ensure equity before we can enjoy equality.

Equity image credit: Please note, this image was adapted from an image adapted by the City of Portland, Oregon, Office of Equity and Human Rights from the original graphic: <http://indianfunnypicture.com/img/2013/01/Equality-Doesnt-Means-Justice-Facebook-Pics.jpg>

Two previous consultant reports recommended the provincial government to provide direction and leadership for deep implementation of inclusionary practices. Wayne MacKay, in *The MacKay Report on Inclusion*, offered 95 recommendations and made the following statements:

- New Brunswick is at a crossroads in respect to the bold embrace of inclusive education and it must commit the financial and human resources to make it work;

- It is a question of whether you pay now or pay later. If money is not invested in the full and inclusive education of the province's children, a price will be paid because of the increase in the number of people on social assistance rolls or entangled in the justice system;
- Effective communication between the relevant government departments is a vital component of integrated service delivery; and
- With excellence in both achievement and service provision in mind, New Brunswick is poised to lead the way toward a world class inclusive education system.

(MacKay, 2007)

It is interesting to read the submissions and surveys and attend the workshops and interviews as well as to see the alignment of comments and requests to MacKay's. New Brunswickers value inclusivity but express many reservations about how services and supports are provided to meet the needs of our diverse culture and expectations. Gordon Porter and Angèle AuCoin, in *Strengthening Inclusion: Strengthening Schools*, organized their recommendations into 12 themes:

- leadership;
- roles and responsibilities;
- instruction and learning;
- professional learning;
- structures for collaboration;
- equity;
- funding and accountability;
- Personalized Learning Plans (PLPs);

- positive learning environment;
- high schools;
- alternative education; and
- resolving conflict.

(Porter, G., and A. AuCoin, 2012)

Since the release of the report, some of the recommendations have been addressed, including the writing of Policy 322. Ultimately, the vision and goal are that we start with the premise, as defined by the United Nations' *Convention on the Rights of Persons with Disabilities*, that recognizes "the right of persons with disabilities to education with a view to realizing this right without discrimination and on the basis of equal opportunity, shall ensure an inclusive education system at all levels and lifelong learning directed to the full development of human potential."

Some of the themes of the Porter/AuCoin report provide opportunities for collaborative professional engagement on "how" school and district-based staff would respond to student needs. Working as professional learning teams, teachers and support staff work from evidence to define the working plan to meet a student's needs. This is called the Personalized Learning Plan (PLP). Expertise from various staff members is used to determine collaboratively the adult actions and next steps to meet the needs of the child. The parent also becomes part of this process, and the student is included to the extent possible. The student's plan includes the justification for the plan, evidence of the student's needs and the improvement goals. Outcomes are articulated, and the instructional strategies

and resources needed are included. The plan is implemented with appropriate resources and support, and it is monitored for success. If the plan needs to be changed, the expectation is that mid-course corrections would be made. Generally, the plan is designed to be implemented in a common learning environment (typically, the classroom). Policy 322 provides direction for when there can be variations of the common learning environment; in other words, under what conditions a student can be provided an alternative location or structure for learning. The expectation is that the individual plan is effective and functional and is used by teachers and support staff to inform their daily practices. For example, as teachers develop their instructional plan for a unit or lesson, they must consider the requirements of the PLPs for students in their classroom. In education terms, this is referred to as differentiated instruction. Porter/Aucoin address instruction as a theme in their report and articulate the need for teachers to work collaboratively to provide effective research-based instructional strategies to meet the needs of students. Interventions and remediation are included in the planning for individual students, and this is expected to form the foundational work of the teacher. A three-tiered approach, Response to Intervention, provides teachers and principals with a planning tool that supports whole school and individual class planning to meet student needs. Tier 1 is what happens in the common learning environment for all students to ensure effective, engaging core instruction. Tier 2 provides for additional time and remediation for students who require additional supports to master learning outcomes. Tier 3 addresses the needs of a much smaller number of students who typically would have individualized learning plans.

During the past 10 to 15 years, teachers have been provided professional learning in a number of areas including the processes of professional learning communities, response to intervention strategies (RTIs) and differentiated instructional strategies. Porter/Aucoin recommended additional professional learning so that teachers and support staff have the expertise and competencies to provide instruction and support to students at all three tiers. Teachers also continue to express a need to have more training in strategies such as small group instruction, flexible grouping, co-teaching and other ways to respond to the needs of their students effectively. Overall, there is a need for consistent, quality planning and implementation of PLPs. Currently, there seems to be a focus on the “plan” and not necessarily the supports, expertise and time needed to implement the plan. Student needs and necessary steps are not always understood or collaboratively approached. Principals and teachers may not have the expertise to understand the needs of a student based on the evidence collected. Deep implementation of RTI models is evident in some schools; however, leadership development for principals and teachers in this area continues to be identified as a need. In other words, the will is there, now we have to develop the skill.

Policy 322 states that, “a key element of sustaining an inclusive education system consists of the removal of barriers to learning as well as ensuring access to learning opportunities for relevant school personnel.” The Department of Education and Early Childhood Development and districts must establish and maintain a professional learning program to ensure that educational staff (teachers and education assistants) have the knowledge and skills needed to provide effective instruction to a

diverse student population. Sections 6.2 and 6.3 of Policy 322 provide direction to principals; however, it is unclear how the leadership development and expertise to deliver on these expectations will be provided. Requirements for teachers are also articulated in the policy, and there is a need for further reflection on how they will be supported to ensure that they can meet these requirements. Developing indicators of success and monitoring processes would contribute to a more successful implementation of Policy 322. It is important that the intentions of the policy are matched by staffing, resources and training needed for deep and sustainable implementation. There is a need to review the implementation and application of Policy 322 to ensure that schools have adequate support, training, leadership and understanding of intervention strategies and overall instruction to meet the needs of students. There has been a great deal stated about “what” a principal or teacher must do, but we appear to be lacking in deep understanding of how to implement and with what resources and support will we work.

Behavioural concerns

Many teachers, principals and parents submitted comments about the overall behavioural challenges in many classrooms. There is much evidence demonstrating that many schools are successful at creating positive learning environments for students and staff. Some schools support student behaviour with a Positive Behaviour Intervention System (PBIS) and have found many ways to increase the overall effectiveness of school culture with clear student expectations and staff consistency in school and classroom management strategies. For the most part, these schools are proactive in establishing protocols and practices for welcoming new students as well as communicating high

expectations for behaviour and academics. They focus on understanding and planning for individual and whole-school responses to student needs. Staffs of these schools continue to learn about the causes of behaviour and effective strategies for teachers and support staff. The principals have

developed an understanding of the culture of inclusivity, the importance of implementing effective individual learning plans, and their own leadership skills in addressing the needs of staff and students in their buildings. These practices have had positive results and should be replicated in the rest of New

Brunswick's schools. Teachers continue to develop classroom management skills and expressed interest in ongoing professional learning opportunities to further develop these skills.

Recommendation

Celebrate and meet the diverse needs of students (begin in Year 1)

Ensure that the diverse needs of all students can be met in a culture of student-centred service, where flexibility is expected and supported with adequate human resources and systematic training, with consistent implementation of Policy 322, Inclusive Education (2013), by:

- expecting Personalized Learning Plans (PLPs) are well developed, supported and monitored for implementation and student success in a consistent and sustainable manner;
- creating ongoing professional learning opportunities for teachers to develop the necessary expertise in differentiated instructional practices and monitor implementation;
- providing the support and resources to ensure that meeting the needs of students is a collaborative effort, led by the teacher responsible, with sufficient autonomy to provide flexibility in time on task, alternative locations for learning, assignment of personnel to the student, program delivery, etc.;
- ensuring that school administrators and personnel deeply understand effective behaviour management strategies and have the support and resources needed to ensure positive and safe learning environments;
- developing school-based expertise for collaborative teams to meet the needs of individual students effectively based on evidence of need and intervention plans;
- ensuring systematic training for all school personnel, including bus drivers, to foster awareness of the causes of misbehaviour and best practices for responding in ways that are positive and affirming of appropriate behaviour;
- providing staffing support, guidelines and provincial expectations for positions such as behaviour interventionists and other adults to support individual learning as needed in school;
- ensuring that educational assistants have the needed competencies, are appropriately assigned and are able to contribute to the overall decision-making about the necessary steps to be taken to meet a student's needs;
- reviewing the implementation and application of Policy 322 to ensure common understanding and adequate support and training for administrators, teachers and support personnel to meet the needs of individual students;
- developing a communications plan and guide for school personnel to ensure that Policy 322 is understood and interpreted correctly in all schools;
- ensuring that performance indicators of implementation of all of the above are monitored and aligned to measures of individual student success as well as school and classroom practice.

Including students and parents as partners

The role of parent and student in understanding expectations is critically important in successful implementation of interventions and strategies to meet student needs. There is often much stress and conflict between school and parent as student behaviours and academic needs are being identified and addressed. These issues are best dealt with first at the school and district level. Further training and support should be provided to principals to lead in managing and resolving conflict with parents. In its submission, the New Brunswick Association for Community Living (NBACL) made several important recommendations that reflected some of MacKay's and Porter/Aucoin's observations. NBACL wrote:

"...a positive learning environment must also seek to prevent disputes between families and the school system and to have formal processes for resolving disputes when they arise. Too often, families feel the need to request that the Minister personally intervene to resolve an issue or to raise their concerns with the media. Better solutions are needed, and significant work to identify possible policies and dispute resolution processes has been done provincially over the past few years. This need was specifically identified in the Mackay report recommendation."

The Child and Youth Advocate has legislated authority to intervene in specific cases and to recommend publicly systemic changes. During the past several years, some training in conflict resolution and mediation has been offered to district and school personnel. This recommendation, however,

speaks to the need for provincial clarity about the roles and responsibilities of all parties as well as a collaborative effort to develop policy and procedures to ensure effective communication and problem-solving strategies when issues arise.

While it is important for the needs and rights of students to be the priority, it is also critical that a respectful culture of collaboration be established with parents and schools. Principals and teachers report many incidents of disrespectful treatment from parents. The expectations of the school and the necessary steps needed to ensure a safe and positive learning and working environment for all in the school are not always understood or supported by parents. As we develop a stronger culture of learning, it will be necessary to establish guidelines and procedures for communication that are built on trust, respect and mutual commitment to support and respect the rights of the student and all staff. Collaboratively defined expectations with clear guidelines and support are needed. District and school leaders have an important role to ensure the development and implementation of effective strategies for communication, mediation and conflict resolution. The gradual transfer of ownership of learning and behavioural goals from educator to learner should be an expectation for all learners.

Student attendance is an increasing issue. Throughout the submissions, factors influencing attendance were highlighted, and many of them intersect with mental health and the need for overall wellness in the province. Student engagement and motivation

to attend school are linked to strong, trusting relationships with the adults in the school as well as the students' perception that their school work will support the attainment of their goals. There is a need for more communication and education with parents and students on the importance of school attendance for learning as part of a shift in cultural expectations. There was also the suggestion that schools need more support in developing positive approaches to attendance and for monitoring of student attendance and tardiness.

In several submissions, New Brunswickers wrote about the importance of understanding why parents have selected home schooling or private schooling, especially for children with diverse needs. Parents wrote to us about their frustration with the system in terms of the individual learning plans for their children and the lack of expertise at the district and school level for support. Many demonstrated a willingness to work within the public school system but left because they felt they were not heard or that the expertise to ensure their child's learning disabilities would be understood was unavailable. Much can be learned from some of our alternative education settings in terms of support, communication and understanding of student needs. We can benefit from collaborative action plans with other education partners within our province and examples of success in other jurisdictions.

Recommendation

Clarify parent and student roles and responsibilities

Increase awareness and accountability for the role and responsibility of parents and students regarding personal well-being seeking support and resources when needed, academic requirements and behaviour by:

- ensuring that parents are authentically involved with individual intervention plans and that students are working toward self-directed learning goals and ownership of their learning;
- developing strategies for all families, beginning with the birth of a child, to be well-informed about the value and importance of learning and student success;
- expecting teachers and school administrators to communicate academic and behavioural expectations with parents and students on an ongoing basis and closely monitoring progress for success;
- reviewing mediation/conflict resolution processes to understand gaps and collaborate with partners to implement solutions;
- considering provincial legislation to strengthen accountability for parents and students in regard to attendance at school;
- providing procedures, guidelines and monitoring of policies to establish safe and respectful work environments for staff to meet the needs of students;
- seeking every opportunity to learn from alternative settings, other jurisdictions, and others that have successfully engaged parents and students as partners;
- communicating consistently and frequently with parents to build trust in the work of educating students.

Encouraging and supporting diversity

Continuing to improve physical access

Learning environments have become more accessible for learners and their families with physical disabilities through dedicated funding for accessibility modifications for playgrounds and classrooms. In its written submission, Ability New Brunswick encourages us to support diverse learners by:

"...continuing to build inclusive physical education in schools and enhance access throughout New Brunswick to adapted equipment for students with a mobility disability or physical disability so they can be active and healthy for life."

Its submission included a recommendation for continued and increased funding to modify and make accessible playgrounds in schools so that all students can learn and play.

As stated by the *New Brunswick's Disability Action Plan* (2013), Recommendation 23:

"It is important to remember that young people are not just adults-in-training; their lives as they experience them now are as valuable and meaningful as those of the adults they will become. How they feel about school and their own achievement is, for most young people, central to their daily lives – whether they feel good about themselves and cared for at school; whether they are frustrated, anxious, bored, or depressed; whether they feel vibrant and excited by what they are learning; and, for that matter, whether they are learning at all."

(Willms, J. D., S. Friesen, and P. Milton, 2009)

"...students with disabilities are fully included in all leisure and sporting activities organized by the school!"

These recommendations demonstrate the recognition and expectation that we have for inclusivity and respect for each other in schools.

Understanding the needs and contributions of LGBTQ (Lesbian, Gay, Bisexual, Transgender and Questioning)

Valuing individual learning styles and personal choice are important in schools, and New Brunswickers respect the need for this openness. In recent years, there has been significant progress in many schools in the area of LGBTQ (Lesbian, Gay, Bisexual, Transgender and Questioning) inclusive education. However, full and secure participation of LGBTQ students and families in the learning community requires ongoing efforts. There are many entrenched societal beliefs that limit people. A number of these pertain to sexual orientation and gender identity. Two in particular need to be addressed systematically to ensure progress toward the meaningful inclusion of LGBTQ youth and families. First, that heterosexuality is superior (heterosexism). Second, that everyone's gender identity corresponds with their birth-assigned sex (cisnormative) and that this is superior. These biases, often unrecognized, ignore variation among people and deny affirmation to those in the minority.

In a 2011 study, *Every Class in Every School*, Catherine Taylor and Tracey Peter surveyed 3,700 students

across Canada. Seventy per cent of the students surveyed reported hearing homo/transphobic comments every day (10 per cent reported hearing homo/transphobic comments from teachers), 64 per cent of LGBTQ students reported that they felt unsafe at school, and 74 per cent of trans students reported being verbally harassed. *Being Safe, Being Me* (Veale et al., 2015), a Canadian Trans Youth Health Survey, surveyed 923 youth who identified as trans. Findings revealed that, in the past year, 70 per cent experienced sexual harassment. More than one in three had been physically threatened or injured; nearly one in two reported being victims of cyberbullying; almost two in three engaged in self-harm; and more than one in three had attempted suicide. Those who lived in their "felt gender" full time were far more likely to report good or excellent mental health.

(Taylor, C., and T. Peter, 2011)

The Every Teacher Project, Taylor and collaborators indicated:

"...there is strong support for LGBTQ inclusion from Canada's teachers...they approve of it, they feel comfortable doing it, and they know that it is much needed. But they are being held back by fears that they will not be supported and lack the training to do it properly."

(Taylor et al., 2015)

Supporting newcomers to New Brunswick

Classrooms and early learning environments are rich with diverse multi-cultural experiences of educators and learners, as New Brunswick becomes more of a mosaic of languages and beliefs. International students and newcomers have been welcomed for many years, and the numbers continue to grow as the province offers opportunities for quality of life and success. As we consider building a system of support for children and youth, we must be aware of the needs of students moving to our schools from other countries. Districts have had varied experiences with international students (both tuition-paying and refugees), and many districts have celebrated and developed effective welcome centres for learners and their families. In many districts, testing is done immediately to determine the level of English spoken by the student. This helps in determining the support needed for students. In some districts, students have been provided with introductory cultural opportunities prior to beginning to attend classes. In many districts, teachers have received some training to support working with international students.

Collaborative work has started, provincially, to pay more attention to the needs of newcomers. English as another language for newcomers is critically important to them as they seek employment. The level of proficiency in their new language is important; they must learn language quickly to apply it to content areas during their daily studies. As we encourage and promote cultural diversity, we must adequately fund and support the level of

expertise needed to meet the needs of these students in schools and early learning environments.

Recommendation

Celebrate and meet the diverse needs of students

Support a culture of respect, diversity and learning for all children and youth with further attention to the needs of those with physical disabilities, LGBTQ and newcomers by:

- seeking advice from Disabilities NB when needed to ensure that policies, guidelines and procedures are positively supporting the recommendations in the *New Brunswick Disability Action Plan* (2013);
- continuing to work on creating conditions and expectations that diversity is valued and heterocentricity and cisnormative assumptions, expressions and actions are gradually eliminated through professional learning, affirmative curricular content and support for implementation;
- developing a provincial strategic plan for support and resources (academic, social-emotional, cultural) with early childhood partners, districts and schools to meet the needs of newcomers to public schools and early learning environments;
- inviting partners such as post-secondary institutions, community agencies, businesses and international organizations to work together to engage in long-term sustainability and attraction of newcomers;
- developing progress monitoring of English/French as a second language to ensure targeted interventions are successfully implemented with newcomers.

Chapter 5: Honouring First Nations

Cultural respect of First Nation people

New Brunswick has 15 First Nation communities. The population is young and growing, with a median age of 28 compared to 44 for the rest of New Brunswick. About 10,000 individuals live in a First Nation community, and another 6,000 live in other communities.

Elders and leaders of First Nations participated in the consultation process to inform these recommendations. Some were former students of residential schools, and some attended provincial schools. Many described watching, over time, as the languages, culture, history and traditions of the Mi'kmaq and Wolastoqiyik (Maliseet) people diminished in New Brunswick. They wanted to ensure that I knew these histories, contributions, treaty facts, the legacy of residential schools and ancestral teachings should be included in provincial curricula. They also included Calls to Action from the Truth and Reconciliation Commission of Canada to provide direction.

Although the recommendations throughout this report apply to all students, including First Nation students, it is important to acknowledge specific needs that must be addressed. First Nation people want and deserve full recognition as partners in the planning and delivery of services and education for their children. As we move our provincial

systems and structures to a focus on partnerships and community building, First Nation leaders and elders are needed as part of planning, implementing and monitoring. There is a desire to have more representation at the government level and to ensure First Nation needs are understood and responded to appropriately. First Nations should share in establishing the vision and direction for the education of their children. They must share in the ownership for decisions, actions and results, and they have expressed the desire to be given the opportunity to accept this responsibility. While education within First Nation schools is a federal responsibility, many First Nation students attend provincial schools. An enhancement agreement is in place to support their success.

New Brunswick's culture of learning must reflect cultural respect for First Nations that includes and validates the values and the history of First Nation people. In one submission, a First Nation leader stated:

"Our rigid academic system fails to take into account cultural differences (learning styles, traditional teaching strategies, world views, knowledge acquisition). I have found that culturally based education for First Nation students is the most effective and appropriate model for academic, social and cultural success.

Culturally-based education is intended to honor all forms of knowledge, ways of knowing and world views equally."

The need to include treaty education as part of the curriculum for all students was repeated throughout the submissions and meetings. This is supported by Call to Action 62 of the Truth and Reconciliation Commission of Canada:

"We call upon the federal, provincial and territorial governments, in consultation and collaboration with Survivors, Aboriginal peoples, and educators to: Make age-appropriate curriculum on residential schools, Treaties, and Aboriginal people's historical and contemporary contributions to Canada a mandatory education requirement for Kindergarten to Grade 12 students."

Recommendation

Encourage cultural respect of First Nation people

Ensure that policies, guidelines, and decisions made at the government, district and school levels reflect understanding of First Nations culture and distinct characteristics of First Nation communities, and encourage the development of shared understanding of our First Nations people by all New Brunswickers by:

- creating shared ownership and leadership among First Nations and government to promote and develop understanding and celebrate the rich and diverse culture and history of First Nation people;
- ensuring that the Calls to Action from the Truth and Reconciliation Commission of Canada are applied to decisions made for First Nation people of New Brunswick, specifically:
 - 62.i. Make age-appropriate curriculum on residential schools, Treaties, and Aboriginal peoples' historical and contemporary contributions to Canada a mandatory education requirement for Kindergarten to Grade Twelve students.
 - 63.ii. Sharing information and best practices on teaching curriculum related to residential schools and Aboriginal history.
 - 63.iii. Building student capacity for intercultural understanding, empathy and mutual respect.

Meeting the needs of First Nation students

Overall, we are concerned about literacy and mathematics achievement, and we must be aware of the academic performance of First Nation students. Decisions must be made to ensure inequities are addressed for each student. One First Nation submission summarized this need:

"We believe that increased investment in early literacy is vital to our success and is crucial to the long-term goal of closing the achievement gap."

Several First Nation school communities have successfully used student data to inform targeted interventions and support for early literacy. One community reported the success of their

targeted interventions with the following data: Letter recognition before targeted, short-term intervention, 40 per cent were achieving success, and following intervention, 60 per cent; numeracy scores before targeted short-term intervention, 33 per cent were successful, and following intervention, 58 per cent. This focus must continue, and it aligns with the provincial need to provide adequate resources and support for early childhood and literacy in K-2 classes. First Nation children may need extra support to succeed in provincial schools. It is critical that identification of needs, intervention, support and prevention are focused priorities when working to meet the needs of First Nation students.

Teaching and learning

The recommendations in this report, which focus on teaching and learning, are also very important to First Nation students, in band-operated and provincial schools. All teachers should have access to professional learning opportunities to increase effective instructional practices, and teachers should collaborate around data to inform decisions about next steps for students. As schools continue to work on appropriate responses to student needs, it is recommended that we partner with First Nations to learn collaboratively and advance teaching and learning strategies.

Recommendation

Meeting the needs of First Nation students

Ensure the needs of each First Nation student in provincial schools are identified in a timely manner and the necessary support, resources and targeted interventions are available with the intent to close the achievement gap between First Nation and non-First Nation students by:

- establishing monitoring and reporting processes of the progress of First Nation students in provincial schools;
- sharing ownership and responsibility with First Nation people to ensure all efforts are focused on the successful attainment of the New Brunswick graduate profile for all First Nation students;
- providing ongoing literacy support as a primary focus with First Nation students in provincial schools;
- demonstrating support of First Nation students in provincial schools through appropriate and immediate adult actions and intervention plans to meet the needs of individual First Nation students;
- supporting a focus on science, technology, engineering and mathematics (STEM) as well as the arts, recognizing the needed content area for First Nation students in provincial schools;
- developing opportunities for First Nation students to share their cultural experiences with non-First Nation students through presentations, projects and experiential learning opportunities.

Evidence about the health and wellness of First Nation children and youth, including the most recent New Brunswick Health Council report (2016), indicates a need to focus on preventative health and resilience. The overall resilience score for First Nation students was 57 per cent, 10 percentage

points lower than the overall population. As discussed in Chapter 3, students in total scored only 67 per cent; even more support is required to meet the needs of First Nation students. As we consider the recommendations in Chapter 3, it is critically important that we partner and collaborate with the

federal government to provide adequate support and resources to First Nation children and youth.

Our First Nation partners were in agreement with many others throughout this consultation who recommended increased opportunities for students

Recommendation

Improve First Nations teaching and learning

Develop expectations for teacher practice that demonstrate an understanding of the needs of First Nation students by:

- providing opportunities for band-operated and provincial school teachers to learn together to increase their expertise in instruction, assessment and meeting the needs of their students;
- developing a communications plan in partnership with First Nation leaders and the New Brunswick Teachers' Association/Association des enseignantes et enseignants francophones du Nouveau-Brunswick with the goal of developing awareness with teachers of First Nations' cultural differences and needs in New Brunswick;
- working with the universities to ensure that the Call to Action 63.iv from the Truth and Reconciliation Commission of Canada is implemented in university pre-service training and in ongoing professional learning for certified teachers and educational assistants:
 - 63.iv. Identifying teacher-training needs relating to [62.1, 63.ii and 63.iii].

to develop critical thinking, communication and problem-solving skills as well as the need to have exposure to a variety of hands-on and enriching learning opportunities. There is a strong desire to

have community programs continue to develop individual student interests. Experiential learning activities inside and outside the classroom, as well as cultural sharing, are needed so that all New

Brunswickers, including First Nation students, can come to appreciate each other.

Ongoing partnership, collaboration and governance

First Nation people have much to share with all other New Brunswickers, and this can be done best in a collaborative culture of mutual trust and respect. There is much interest in improving our working relationships in support of student learning. In partnership, we can learn from each other. As we move forward, it will be necessary to provide a collaborative governance structure and processes for shared, transparent, and student-centred leadership between the provincial government and representation from First Nations for decisions related to provincial education for First Nation students.

Recommendation

Provide ongoing partnership, collaboration and governance for First Nations education

Support the development of First Nations leadership in education and learning by:

- ensuring adequate staffing at the department level to support First Nation students in provincial schools and transitioning into and out of the provincial education system;
- continuing to ensure that hiring decisions for First Nation teachers and staff in public education are made in consultation with First Nations;
- encouraging First Nation students to pursue post-secondary opportunities and stay and work in New Brunswick;
- continuing to work with post-secondary institutions and First Nations to attract and train First Nation individuals for educational and supporting professional and paraprofessional positions;
- reviewing and continuing the development of the current structure of tuition enhancement agreements and the planning, implementation and monitoring of these agreements.

Chapter 6: Learning: Prioritizing what we want students to know and be able to do

As Bill Daggett said in *The Daggett System for Effective Instruction*:

"...all schools need to move from curriculum that is built around single disciplines to an interdisciplinary curriculum. What matters for success in the world beyond school is not simply what you know but what you can do with that knowledge."

(The Daggett System for Effective Instruction, 2012)

Educating students with a focus on the right work and doing this with engaging, relevant and rigorous expectations will increase opportunities for student success. And, student ownership of their learning will support lifelong learning.

Student-centred learning, student engagement, high expectations

Student success will require an immediate strengthening of community-based and system-wide expectations for learning. Demonstrating proficiency in critical thinking, problem-solving and communication skills will need to be a stronger focus in all content areas and include appropriate monitoring. Equally important, as we work to establish "what the right work for both content and skills" will be for students, is the need for parents and teachers to understand the level of proficiency needed to master the work. Participants in the online consultation were asked about learning expectations for students. Results indicate many believe expectations are too low across all grade levels, particularly at high school (K-5 – 26 per cent too low and 10 per cent much too low;

middle school – 30 per cent too low and 14 per cent much too low; high school – 31 per cent too low and 15 per cent much too low). In addition, 25 per cent of participants reported they did not know whether expectations are appropriate at the high school level; the highest "do not know" response. A 2014-15 provincial survey indicated that 25 per cent of middle school and 22 per cent of high school students felt their lessons were too easy (based on input from more than 8,600 students in language arts, mathematics and science classes).

Teachers made many written submissions with comments about expectations. One said:

"We must establish and maintain high academic expectations – teachers and students set goals, teachers provide intervention."

Another wrote:

"...children who are meeting the high expectations are most often those children whose needs are being met and have access to supports."

Overall, educators recognize the need to have higher academic expectations despite the issues they identified about class composition and the diversity of student needs in their classrooms. In this report, high expectations are defined as: consistent understanding of grade-level proficiency by students. For example, students will know what writing proficiency in Grade 5 looks like; the level of problem-solving and analysis skills expected for their Grade 10 project; and the critical thinking and explaining they should be able to do in Grade 2. Much important curriculum work is still needed in New Brunswick and elsewhere to define, explain and illustrate appropriate grade-level skills and concepts as well as their application. The development of exemplars and rubrics and building understanding with teachers, students and parents will require immediate and ongoing efforts.

Downey/Landry made significant recommendations that brought changes to the education system, including universal kindergarten and middle school reform. They commented on "what" was needed for increased expectations:

"There is widespread belief that significant change is needed in our education system. Some say that the schools are not doing enough to assist students to

develop their individual talents and reach their full potential. Still others believe that educators are not preparing students sufficiently well for productive and successful economic lives. There seems to be a consensus that the answer to this dilemma is not a narrow curriculum focus on 'the basics.' Central though the basic skills of reading, writing and arithmetic remain, and essential though their mastery is to all educational pursuits, they are no longer, if they ever were, enough. The challenge is greater. It is to cultivate in all children the capacity to think for themselves both analytically and creatively, to communicate effectively, to know where to find and how to use knowledge, and to develop a pleasure in the arts and sciences of knowing that will make them lifelong, adaptable learners. To achieve this, our schools will need the support of a social culture that values education and the various kinds of excellence education makes possible. High performance is nourished by high expectations. Expect a lot and you increase the likelihood of high performance."

(Downey, J., and A. Landry, 1992)

High expectations and increasing the level of student engagement have long been recognized as the core of effective schooling. As explained by *Engaging Schools*, the United States National Research Council's Committee on Increasing High School Student's Engagement and Motivation to Learn (2004):

"...research on motivation and engagement is essential to understanding some of the most fundamental and vexing challenges of school reform."

As stated by Robert Marzano in "The inner game of teaching," in *On Excellence in Teaching*:

"The human mind is comprised of a hierarchy of goals. At the lower levels are goals that address basic subsistence needs such as food, comfort, and shelter. Above these are short-term goals such as scheduling a date or getting a good grade on a quiz. Above short-term goals are long-term goals such as making a varsity sports team and playing first-string all season or completing a semester-long thesis for an honours class. Even higher on the hierarchy are longer-term goals – those at the very top being lifelong goals. When a student is operating on higher levels of the hierarchy, he or she is more engaged. Therefore, the more a teacher can tap into students' higher-levels goals, the more engaged the class as a whole will be."

(Marzano and Marzano, 2009)

This focus on the importance of goal-setting and student ownership of learning is reinforced by Monique Boekaerts in *Goal-directed behaviour in the classroom*:

"It is generally accepted that a small set of higher order goals, or principles, should be placed at the apex of a hierarchical goal network. This set of basic principles contributes most to a person's sense of self, because the principles represent the person's basic values and the traits that he or she considers ideal. As such, higher order goals provide general organization and orientation to a person's life and optimize personal meaning and making processes. I am convinced that all students live in a multi-goal environment, and that much of their daily activities concern decision making about how much of their limited resources they will invest in the many goals that they consider salient at the point in time."

(Boekaerts, 2009)

Teachers expressed their understanding of the importance of engaging, diversified lessons, and they acknowledged that overall we have work to do in this area. The skills and competencies leading to high levels of Bloom's Taxonomy provide more opportunities for students to be engaged in their learning. In *The Highly Engaged Classroom*, Marzano and Debra Pickering list four topics that constitute a discussion of attention and engagement:

- 1 Emotions – emotional engagement impacted by student energy levels, teacher's positive demeanour and student's perception of acceptance.

- 2 Interest – triggering and maintaining situational interest in the classroom.
- 3 Perceived importance – personal goals, cognitive complex tasks related to real-world application (Marzano, page 15).
- 4 Perceptions of efficacy – can I do this? Having a growth mindset versus a fixed mindset.

(Marzano, R., and D. Pickering, 2011).

John Hattie's highly successful books, *Visible Learning* and *Visible Learning for Teachers*, provide

evidence confirming the need for student ownership (self-evaluation, reflection and reporting of success). From recent New Brunswick data, students, especially in high school, have indicated a low level of intellectual engagement. By refocusing work in schools and asking students to take more ownership of their learning, the level of engagement will increase. Again, all of this will be made easier with a provincial culture of learning and a system aligned to begin this change of direction.

What do we want students to be able to do?

Throughout the consultation, questions were raised about what skills and content students should be expected to master. Is this clearly understood by teachers, students and parents? Do we expect enough? Do we expect the right things in an ever-changing world? Are we focusing our energy, resources, time and support in the areas of most need and importance for students? Are the daily classroom lessons focused on the most important skills and concepts at an appropriate level of proficiency? What is the expectation for graduation from high school? Is it enough or too much? Is the focus on the right work? How should our classrooms look? What does lesson planning involve to be focused on skills as well as content? What does engagement mean, and how will we know if learning is taking place?

In all documents, discussions, and research, it is clearly evident that a primary focus must be

on updating and understanding the skills and competencies necessary for graduation. Once the competencies are sufficiently defined, we can create conditions for success through "backward planning and design." When the online survey participants were asked what they considered to be the most essential skills and competencies for success, they indicated the following:

- 85 per cent, communication skills;
- 73 per cent ability to adapt to change;
- 64 per cent, self-confidence;
- 61 per cent, critical thinking;
- 43 per cent, ability to collaborate;
- 43 per cent, managing personal finances;
- 39 per cent, individual wellness;
- 38 per cent, creative thinking;
- 29 per cent, active citizenship;
- 20 per cent, leadership skills; and
- 2 per cent, other skills.

In addition to this, New Brunswickers overwhelmingly stated that their most pressing areas of concern were literacy, mathematics and science.

Another theme that emerged was the need for student ownership and responsibility of his or her learning. In some schools, students have responsibility for reporting on their learning through personalized portfolios (paper and e-portfolios). In other schools, teachers use direct assessment. Leading schools and jurisdictions are engaging students in "owning their learning" by establishing expectations for self-assessment and analysis of student work. In New Brunswick, there is little evidence of consistent practice toward this highly effective, research-based strategy for engagement. Student interviews clearly provided evidence that they want to be more engaged and to actively participate in learning. The skills and competencies listed above represent what adults and students

alike want and expect in schools. High school students described very low levels of experiential learning and learning that is rigorous or relevant. This is impacted by “the what” (provincially established curriculum) as well as “the how” (educator planning for instruction and assessment). School improvement must address the skills and competencies of students and adults as well as ensure that expectations for students are challenging, engaging and meaningful in their world.

Chapter 4 identifies the work to be done to ensure timely and effective support for students and the importance of responding to their individual needs with the right tools and resources. As discussed, this should be built through a collaborative, integrated model driven by data and monitored for results. If we can get the right supports in place, the work of the teacher in establishing appropriate expectations for higher-order thinking skills and knowledge should become more consistent practice in classrooms. The two go hand-in-hand. We cannot increase expectations without a balance of increased support to meet student needs.

The skills and competencies identified by New Brunswickers are directly aligned to the work completed in Ontario to shift thinking. Ontario’s competency framework describes “6 Cs”:

- character education;
- citizenship;
- communication;

- critical thinking and problem-solving;
- collaboration; and
- creativity and imagination.

In May 2015, 21 superintendents and directors of education from across Canada collaborated to publish *Shifting Minds, 3.0*, (www.c21canada.org). This paper identifies seven competencies needed by all students in Canada:

- creativity, innovation and entrepreneurship;
- critical thinking;
- collaboration;
- communication;
- character;
- culture and ethnic citizenship; and
- computer and digital technology.

In 2010, the New Brunswick Department of Education released *NB3-21C*, which outlined the 21st Century skills that students would need and should be reflected in graduation requirements. This document contained the global thinking and direction found in successful school systems today, and it received overwhelming support from educators. The skills included:

- critical thinking;
- problem-solving;
- collaboration;
- communication;
- personal development/self-awareness; and
- global citizenship.

The research and the consultation process provide clear direction that these skills and competencies must be embedded in expectations for students. Whether we reference Ontario’s framework or our provincial work, the core skills and competencies overlap and should form the list of prioritized graduate competencies for students. Our first step must be to establish a graduate profile. A deepened understanding of this work by teachers, students and parents will be an important part of creating a culture of learning. Shifting our thinking from “covering content” to “mastery of essential skills and competencies” should be the consistent focus of lesson design. Of course, this work has to be supported through capacity-building and collaborative learning with educators and school leaders. It may be a mindset shift for some educators to define daily lessons around student ownership of their learning, having students explain and write about their thinking as well as apply inquiry-based, problem-solving skills at a young age. Many teachers understand the importance of this type of instruction, and many wrote to us to ask for more support and guidance for developing high expectations in their lesson design. Curriculum and instruction cannot be separated, and they must both be supported as we increase understanding and learn how to apply high expectations and effective classroom practices.

Recommendation

Update skills and competencies expected of learners

Immediately update the expected skills and competencies necessary for learners to be engaged and responsible for their learning and to have rigorous, relevant daily lessons by:

- establishing an internationally competitive graduate profile, including 21st Century competencies and foundational skills, for lifelong mental and physical health;
- using “backward planning and design” based on the New Brunswick graduate competency profile align the learning progression from early years and grade to grade across all content areas;
- expecting students to have self-directed portfolios to monitor their journey toward mastery of the New Brunswick graduate profile;
- supporting educators to develop a culture of rigorous and relevant learning;
- centering instructional practices and classroom organization on students’ need for autonomy, competence and relatedness to foster their motivation and ownership of learning;
- developing teacher expertise in the instructional steps involved in the gradual release of responsibility for learning to students;
- helping students build a deep understanding of proficient work, to self-evaluate, set short- and long-term learning goals as well as understand the steps required to obtain proficiency;
- developing individual learning plans and profiles with students to address their learning styles and needs;
- ensuring the culture shift is well articulated and understood by students and parents;
- ensuring teachers have a detailed understanding of what students must accomplish at each grade level so they have the prerequisite skills and knowledge for the next grade level;
- continuing to involve post-secondary, industry and health partners, educators, parents and stakeholders to validate the requirements for success;
- using this first recommendation to lead to further discussions for change to programs and learning opportunities at the high school level.

Defining the ‘what’ in our curriculum

In New Brunswick, the content to be learned resides in provincially mandated curricula (www.gnb.ca/education). Curriculum documents and resources to supplement the content areas are provided to teachers. Teachers are provided with supplementary resources made available on an internal portal site. These include research and print resources as well as videos. The use of curricular documents and supplementary teaching resources is inconsistent across the province. This finding was supported by the results of school reviews conducted from 2010 to 2015. Many teachers do not seem familiar with the additional support they could access to improve teaching and learning.

Textbooks and technology are considered resources to the mandated curriculum. In successful classrooms and schools, collaborative teaching

CREATING - The student can put elements together to form a functional whole, create a new product or point of view: assemble, generate, construct, design, develop, formulate, rearrange, rewrite, organize, devise

EVALUATING - The student can make judgments and justify decisions: appraise, argue, defend, judge, select, support, evaluate, debate, measure, select, test, verify

ANALYZING - The student can distinguish between parts, how they relate to each other, and to the overall structure and purpose: compare, contract, criticize, differentiate, discriminate, question, classify, distinguish, experiment

APPLYING - The student can use information in a new way: demonstrate, dramatize, interpret, solve, use, illustrate, convert, discover, discuss, prepare

UNDERSTANDING - The student can construct meaning from oral, written and graphic messages: interpret, exemplify, classify, summarize, infer, compare, explain, paraphrase, discuss

REMEMBERING - The student can recognize and recall relevant knowledge from long-term memory: define, duplicate, list, memorize, repeat, reproduce

teams focus on prioritizing learning outcomes for students based on the curriculum and plan their lessons based on the skills and concepts, from curriculum, for students to master. As described by many researchers, it is critical that students are ensured a guaranteed and viable curriculum. In other words, teachers must provide all students with equitable accessibility to master learning of agreed-upon key learning targets. For these reasons, it is very important we start with curriculum that provides teachers with a clear understanding of the right level of expectations and enough specificity to ensure all students have access to mastery of “the what.” This should not be teacher-dependent. The key learning targets for each grade and content level should be well-researched and presented so that teachers know exactly what they must expect students to learn.

Teachers are involved in curriculum development. They could also provide expertise in supporting the decisions that need to be made on the prioritized learning targets to be mastered. It is important that curricula be examined with regard to the level of

skills and the content that we believe is necessary for students to master. Collaborative teams of teachers at the school level can work from quality curriculum documents that define skills and concepts for effective lesson planning. Beginning with clear understanding of “the what” is necessary foundational

work. Empowered with curriculum documents containing the right learning targets that reflect high expectations, teachers can work together to provide appropriate learning opportunities to challenge and prepare students for the next chapters of their lives.

As we think about the core competencies (Ontario’s Framework, *Shifting Minds 3.0* or *21st C*), it is obvious that these competencies require students to be able to explain their thinking and to develop problem-solving strategies and communication skills. These types of competencies can be written into curricular expectations through progressively building the learning expectations. For example, a learning outcome can be written such that it only requires the student to “recall, remember or describe something that they read in a text.” This same learning outcome can be written with more rigorous expectations to require students to “explain why” or “create a problem similar to” or “analyze this text for examples of.” When attention is paid to the level of rigour and expectations for student thinking, there is more opportunity for students to think critically and problem solve. This type of curriculum development follows the work of Benjamin Bloom. In education, it is not uncommon for teachers to refer to Bloom’s Taxonomy when planning lessons. Bloom’s revised document, 2011 (see illustration on previous page) describes the necessity to build and scaffold skills beginning at the bottom of the pyramid and working toward the top. These skills can be embedded in expectations and monitored for success. As we work to describe the “New Brunswick” graduate, we can use these competencies to build more understanding of the higher order of thinking that we want to create as part of our culture of learning.

Recommendation

Rewrite outdated curriculum

Leverage district and school expertise to rewrite outdated curriculum, beginning with literacy and science, technology, engineering and mathematics content areas (STEM), to ensure a guaranteed, viable, consistent and current curriculum by:

- reviewing, prioritizing and reducing curriculum outcomes as necessary to allow for mastery versus coverage, thus ensuring students attain a competitive graduation profile with proficiency at levels equal to other successful provinces and countries;
- formalizing the value stream for delivering the provincial program of studies. This should integrate curriculum, assessment, professional learning as well as teacher and system accountability;
- providing sufficient resources to enable critical documents to be produced in a timely manner;
- ensuring that technology options in middle school and high school afford students an introduction to coding skills;
- planning for flexibility, autonomy, and accountability for communities, districts, school leaders and teachers to provide vocational skills, exposure to the arts, entrepreneurial opportunities and unique learnings that support partnerships and community needs through easy access to local options and challenge for credit.

Literacy, mathematics and science

Literacy

As previously stated, our consultation survey responses overwhelmingly identified literacy, mathematics and science, in that order, as the primary areas needing focus. This aligns with the written submissions and interviews held throughout the province. This focus is not limited to learning the basic skills of reading, writing and arithmetic but extends to the need for literacy across all content areas and the application of numeracy, scientific thinking and inquiry-based learning in daily lessons by all teachers in all schools.

The 2016 consultation report, *The Power of Literacy*, provides significant evidence that a provincial focus on literacy at all levels of education is critically important to New Brunswickers:

“For our society to provide opportunities for individuals to reach their potential, we need to create rich communication and learning environments. Literacy plays an evolving, yet critical role across the lifespan and within different contexts of life (i.e., home, work, school and community). The economic and social costs of low literacy skills affect everyone regardless of their individual skills. Literacy means more than learning the skills of reading and writing traditionally taught in school or through training. Literacy encompasses the multiple ways that individuals engage with oral and written languages (alone or with others) in various printed or digital forms.”

(Trenholme Counsel, M., and L. Roy, 2016)

There is a strong need to continue to increase and enrich the vocabulary and use of language by all

learners and to pay close attention to this as we develop more strategies to meet the needs of First Nation students, young children and second-language learners, including immigrant students. As we strive to increase the multilingual capacity of the province, rich opportunities for the use of vocabulary and language development are critically needed. Of primary importance is that we ensure the teaching and learning of reading by the end of Grade 2. A provincial goal of 90 per cent success in reading by the end of Grade 2 continues to be in effect and will require additional strategic work immediately. Through research, we understand that students who are not successful readers in Grades 2 and 3 are most likely to remain frustrated as they move through school. As discussed in Chapter 3, language development must be a priority and supported provincially from birth. The opportunities for children to be exposed to books, involved in conversations, build vocabulary and learn to read cannot be over-emphasized. This work must be started in homes and communities and continue to develop in school. It is important to make this work a priority in the next education plan through providing rich opportunities for children to “learn to read” and then engaging them in applying this learning to “reading to learn” as they progress through school. Consistent expectations for children to have access to the most effective ways to learn to read are needed in all schools and communities. Interventions and an understanding of how to teach reading are needed to ensure this is done. Early childhood and early years educators and support staff have a critical role to play in the long-term development of students.

It is important to understand that from 2004 to 2010, New Brunswick had a strong early years literacy focus with many resources, supports to students, and professional learning for teachers. Teachers became very skilled in teaching reading, small group instruction, guided reading, writing and using progress monitoring such as AIMSweb, DIBELS and running records. Many teachers had an opportunity to develop expertise in these areas and more. In addition to students needing timely and effective interventions and remediation, teachers need opportunities to develop the skills needed to teach literacy effectively. It will be important for them to receive coaching, modelling and mentoring to develop effective instructional practices. Collaborative teams should meet around instruction, assessment and intervention planning, and they should learn from each other. University programs in early learning and literacy must be focused on ensuring that educators are well qualified for this role as they begin their careers. Hiring practices and teacher competencies should be changed to ensure competency in the teaching of reading and the understanding of reading-to-learn strategies are embedded in daily classroom practice. Many submissions spoke directly to the need for the provincial government to reconsider the qualifications needed to teach to build more capacity for literacy development.

There has also been great support for early literacy through several partnerships and community initiatives (e.g., volunteer programs such as Elementary Literacy, www.elfnb.com). This support is targeted, needed and appreciated. However, any volunteer program or other community initiative

must supplement and complement strong instructional practice by the educator. In some ways, during the past few years, we have relied too heavily on this type of support to provide the only interventions for some students. Our collaborative literacy work with partners should be aligned with the recommendations identified in this document and create conditions for further support to students. Partnerships should not replace our primary responsibility for strong literacy instruction, individual interventions and targeted learning opportunities.

In addition to focusing on early literacy, New Brunswick must continue to support literacy in middle schools and high schools. Reading and writing are fundamental skills; however, literacy today is more than print. Communication in the 21st Century demands reading and creating texts that combine multiple symbol systems – multi-modal texts (e.g., visual, digital, linguistic). In today's world, being literate requires much more than the traditional literacy of yesterday. According to the National Council of Teachers of English (NCTE), 21st Century readers and writers need to:

- gain proficiency with tools of technology;
- develop relationships with others and confront and solve problems collaboratively and cross-culturally;
- design and share information for global communities to meet a variety of purposes;
- manage, analyze, and synthesize multiple streams of simultaneous information;
- create, critique, analyze, and evaluate multi-media texts; and
- attend to the ethical responsibilities required by these complex environments.

(www.ncte.org)

As stated by Rebecca Alber in Edutopia:

“When it comes to an effective communicator, we can no longer consider college and career ready as simply sending students out as good readers and writers. As the definition of literacy evolves in our world, so does the charge of schools in helping students work towards and gain mastery of the skills and abilities NCTE has outlined above. What does this mean for teachers and students? Schools need to be preparing students to masterfully navigate, judge, and create this type of sophisticated communication – and do so quickly and efficiently.”

(Edutopia, www.edutopia.org – January 2013)

It is equally important that we pay attention to financial literacy. During our consultations, students and parents identified financial literacy as needing further development across curricula. The mathematics curriculum includes learning outcomes to support financial literacy; however, this can be strengthened with greater use of financial examples and learning developed across all content areas in addition to independent courses.

As identified in the 21st Century competencies, students must be well prepared with communication skills; be able to use and understand technology; and be able to apply their reading and writing skills in real-life situations. A rigorous literacy focus incorporated in all content areas, requiring students to create, analyze, present arguments and work with informational text will support life-long learning.

Recommendation

Promote literacy skills

Immediately provide the resources and targeted supports needed for developing strong literacy skills from birth for all New Brunswickers by:

- ensuring that our educators are highly trained to teach reading and writing skills as well as having a deep understanding of multi-modal literacy;
- collaborating with educators and school leaders, develop courses and materials needed to ensure teachers have the skills, expertise and competencies required to teach literacy;
- providing the tools necessary for early identification of learning disabilities and literacy learning needs;
- ensuring that each student receives targeted support to meet his or her needs in a timely manner;
- creating learning targets and goals for mastery of the necessary skills and competencies to ensure learners in New Brunswick have the same high expectations for literacy development as those in the most successful jurisdictions;
- continuing to work with partners and communities to increase opportunities for learners;
- creating expectations and opportunities for multi-modal and cross-content literacy in all grades;
- expecting and monitoring “reading- and writing-to-learn” strategies applied consistently and effectively in all classrooms;
- communicating the importance and value of literacy beginning at birth with all New Brunswickers;
- working with post-secondary educators to create opportunities for further understanding the development of literacy skills.

Mathematics and science

As mentioned in Chapter 2, there is an urgent need for improved learning focused on mathematics and science. This section will address the recommendation to strengthen the curriculum and instruction of mathematic skills and concepts beginning in early years as there is also the need for a long-term plan with increased focus and expectations in scientific thinking and inquiry-based learning. This work should be grounded in a STEM framework, beginning with high expectations for mastery of foundational skills in the early years.

The National Council of Teachers of Mathematics (NCTM) takes the following position on the teaching of mathematics at an early age:

"Literacy means more than learning to read and write, as traditionally taught in school or through training. Literacy encompasses the many ways that individuals engage with oral and written languages (alone or with others) in various printed or digital forms. Society must create rich communication and learning opportunities for each individual to reach his or her potential."

(www.nctm.org)

Teachers must be well skilled in content and practices required to teach mathematics- and science-based curricula. In many submissions, teachers expressed concern with their assignment to teach mathematics without having the background, skills and competencies to ensure quality instruction.

To understand the current focus of science and mathematics in other countries and provinces, it is important to discuss the term STEM. The National

Science Foundation in the United States introduced the concept of STEM in the 1990s. Today, internationally, STEM has come to be recognized as a meta-discipline – an integration of formerly separate subjects into a new and coherent field of study. STEM is not a curriculum. Rather, STEM education is an approach to learning that removes the traditional barriers separating the four disciplines and integrates them into real-world, rigorous, relevant learning experiences for students (Vasquez, Sneider & Comer, 2013). Defining STEM is the easy part; implementing STEM education on a large scale is more challenging. All STEM learning should have one thing in common – giving students opportunities to apply the skills and knowledge they have learned or are in the process of learning. Application is at the heart of STEM education and can be applied to all content areas in addition to the specific areas of science, technology, engineering and mathematics

(*Educational Leadership*, January 2015, Vol. 72, No. 4 pages 10-15)

In its submission, the Engineers and Geoscientists of New Brunswick, made several recommendations including:

- engage students in the early years in STEM activities;
- develop more STEM lead teachers and provide more assistance to teachers by trained STEM educators (leads);
- make science and technology a priority;
- provide access to STEM classes via digital classrooms;
- develop cross-curricular STEM programs specific to STEM initiatives;

- look to community partners to provide additional exposure to STEM; and
- increase computer coding skills.

The engineers also said:

"...just like literacy, the earlier students are exposed to math and science, the more likely they are to enjoy and expand their STEM skills in later grades."

Interestingly enough, the engineers explained that, in the future, it is predicted that Canada will need 10,000 engineers. The skills developed in STEM-related studies are found in some of our current curricula and definitely in the curricula of the most successful countries.

This focus on STEM skills and competencies was reinforced by a submission from the New Brunswick Department of Post-Secondary Education, Training and Labour:

"...students should graduate with a strong foundation in science, technology, engineering and mathematic (STEM) fields. Students need to develop 'soft' skills of communication, negotiation and teamwork and higher order cognitive skills such as complex problem solving, critical thinking, reasoned analysis and entrepreneurial activities."

Science East wrote:

"...when given a choice, students must be willing to take and to participate in science and technology-related courses. This requires those courses to engage them in a meaningful way. Inquiry-based learning allows all learners to be engaged with the content and construction of knowledge. It provides a

means to differentiate instruction to accommodate diverse learners.”

A professor from The University of New Brunswick wrote:

“...the most obvious failing of K-12 science education in NB is the focus on learning by rote. Evaluation in K-12 typically focuses on the lowest levels in Bloom’s Taxonomy – remembering and understanding – and rarely addresses higher order cognitive tasks such as analyzing or evaluating, let alone challenging students to use the scientific method to create new knowledge. Digital technology is pervasive in our culture. Ensuring students are digitally literate involves providing them with experiences that are relevant to students’ lives and used in a context that enables the accomplishment of STEM-based outcomes. I strongly encourage the inclusion of some basic programming as part of computer literacy as well. Certainly only a few students currently in high school will become computer programmers, and whatever programming languages they use will change. So again, it’s not the specific skill of being able to write a program in some specific computer language that is important; it’s the general conceptual understanding of how an algorithm can be encapsulated in instructions and that the instructions determine exactly what the computer does.”

Many other submissions supported the focus on skills versus content. Example:

“...today, knowledge-based work is replacing manufacturing jobs. Robots and software are displacing routine work. Meanwhile, collaborative work is dominating both transactional and production work. The future of valued, human work is in addressing complex problems and coming up with creative solutions.”

Canada ranks 12th among 16 peer countries in the percentage of its graduates who studied in STEM programs (21.2 per cent). The percentage is higher than that for the United States but lower than that for countries such as France, Germany and Austria. Finland, the country with the greatest proportion of STEM graduates, has more than 30 per cent of university graduates coming from science, mathematics, computer science and engineering programs. Many Canadian organizations, businesses and community partners are changing programs and expectations to promote STEM fields. For example, Scouts Canada has taken measures to promote STEM fields to youth. Its STEM program began in 2015.

As suggested by Code.org, a non-profit dedicated to expanding access to computer science and increasing participation by women and

under-represented students of colour (www.code.org), particular attention and support should be paid to exposing coding to all students. There is well-documented evidence that this is an effective practice in successful jurisdictions. New Brunswick has had innovative experiences for some students in relation to coding. Nova Scotia and British Columbia have learned from some of our successes and are introducing coding as requirements for all students.

Teachers can continue to learn how to develop STEM-related skills and competencies. Today, effective instructional practices are well-researched and defined by many leading educators, including John Hattie, Robert Marzano and Michael Fullan. New Brunswick’s professional learning focus for teachers should be built around the skills described as Ontario’s 6 C’s, New Brunswick’s NB3-21C, the 7C’s *Mindshift 3.0*. and STEM outcomes. These are all aligned to a focus on critical-thinking, problem-solving and communication skills where students must apply their learning and develop responsibility and ownership for this learning. This type of lesson is very different than one requiring only information recall. In other words, planning and implementing instructional practices are as important as the content taught. This change in focus is needed in implementing the next education plan.

Skilled trades

In all the input received during the public consultations, little was related to the skilled trades. That being said, it is important to continue to consider increasing opportunities for students to

explore areas of interest, be exposed to a variety of career options and experience hands-on learning, including the skilled trades. Many of the skilled trades competencies are embedded in the STEM

components, and this focus should be understood and promoted by guidance counsellors, school leaders and teachers.

Entrepreneurship

The first focus group of this consultation was with an energetic group of stakeholders who support the development of entrepreneurial learning. To discuss entrepreneurial education, it would be important to consider and define what we mean. It would also require a shift in mindset. As we think about the six competencies (Ontario's competency framework, mentioned earlier in this chapter), it is important to consider a number of questions,

including does entrepreneurial learning represent a means to an end in terms of developing these skills? Does it provide the setting and opportunities for students to explore, problem-solve, critically think and apply learning to real-world problems? Or in New Brunswick, do we strictly see it as a business model? New Brunswick is rich in partners and stakeholders who wish to support the important work of entrepreneurial education.

It will be important that doors are open to these partners who can build a more diverse and rich opportunity to introduce students to skills and competencies aligned with entrepreneurial education. Again, guidance counsellors, school leaders and teachers should be well aware of the importance of the exposure for students.

Recommendation

Strengthen STEM education

Prioritize the development of skills and competencies associated with STEM education, skill trades and entrepreneurial education for all learners by:

- strengthening mastery of mathematics skills and concepts with high expectations for success beginning in early years;
- ensuring teachers are hired and assigned to teach in areas that match competencies, especially in mathematics and other components of STEM;
- creating expectations and opportunities for educators to develop student-centered instructional practices that support the development of critical thinking, problem-solving, innovation, inquiry-based and experiential learning as well as higher-order thinking skills;
- immediately addressing individual student needs with appropriate and timely interventions to increase their level of competence in mathematics;
- ensuring the New Brunswick graduate profile includes expectations for students to master 21st Century competencies through established targets and monitoring processes;
- creating and supporting the development of centres of learning for STEM-focused skills and competencies and innovation for educators and learners;
- providing a deep understanding of and opportunities for skilled trades, entrepreneurial education and flexible course options to meet the needs of students who wish to pursue careers aligned to these competencies;
- working with Science East, Brilliant Labs, Engineers and Geoscientists of New Brunswick and other provincial partners to support effective STEM instructional practices in schools;
- developing assessment expectations and self-reporting opportunities to ensure the monitoring of student mastery of STEM competencies;
- ensuring that all students are exposed to updated technology opportunities, including coding, and that equipment is refreshed in all schools as a continuing provincial priority;
- removing provincial barriers to partnerships and learning opportunities with technology-based companies (such as Apple, Microsoft) that can provide support for innovative, creative and inquiry-based learning;
- working closely with post-secondary institutions to create partnerships and opportunities for learners to support a STEM-focused learning culture.

The arts

Most recently, the United States' joint House-Senate Conference Committee amended the *Elementary and Secondary Education Act* to include the arts in STEM education. The intention is to increase and improve the attainment of STEM-related subjects and promote a well-rounded education. In many education communities, the letter "A" is being added to the acronym: STEAM (science, technology, engineering, arts and mathematics). New Brunswick is rich in arts and cultural opportunities in both linguistic communities. For many years, the arts have remained a component of curricular expectations, and partners have worked diligently to bring enriching opportunities to students. New Brunswick must continue to grow and expand arts experiences for students and ensure they have opportunities to build their skills and competencies through the arts. This can be done through prescribed curriculum (the "what") as well as in lesson design (the "how"). Teachers who incorporate music, drama, dance and art into their daily classroom practice provide more opportunities for students to be engaged in their learning than students who do not have these opportunities.

One example is Park Street Elementary School in Fredericton, whose staff is committed to educating the whole child and ensuring students have a variety of learning experiences that support the arts. In addition to teaching the visual arts and music education curricula, the school has two glee clubs, one for K-2 students another for Grades 3 to 5, each of which involves significant numbers of students. The music teacher leads the clubs. Additionally, the school has an elementary orchestra involving more than 60 students. A partnership has

been formed with a local business so parents can rent musical instruments at a reasonable cost for the school year. The school also runs six- to eight-week blocks of visual arts programs. One program is with the Beaverbrook Art Gallery, and another is led by a local artist who comes to the school. The school has hired a First Nation elder to come to the school to create masks from clay and to teach First Nations culture. Drama and dance are also highly valued by the school, and students have the opportunity to participate in learning experiences that address these areas. Again, these areas draw on partnerships and expertise that the school has been able to access. The school works diligently to develop the leadership skills of the students and in so doing encourages students to lead clubs in collaboration with a teacher advisor. Many of the

clubs begun by the students support the arts. Most clubs are offered outside instructional hours.

Teachers are encouraged to team and co-teach to support the development of their capacity in these areas and to support the teaching of the arts within instructional hours. A teacher who has expertise in the arts is encouraged to share this understanding with others who wish to extend their learning. The staff appreciate that one's expertise and passion are key to engaging students. Cultural experiences in schools and within communities should be provided for all students, and every opportunity should be taken to partner with award-winning New Brunswick artists.

As we think about learning, it will be important to collaborate and collectively understand how

Recommendation

Strengthen instruction in the arts

Ensure that the arts are incorporated in the curriculum, are supported by effective instructional strategies, and are included in learning opportunities beyond the classroom; also ensure their benefits are understood by educators, parents and students as well as influence decisions by the provincial government by:

- providing educators with opportunities to build skills and competencies in the use of music, art and drama in daily instructional practices to engage students;
- developing consistent, strong partnerships with provincial, national and international organizations that can offer opportunities for exposure to the arts and skill development for students and educators;
- ensuring that arts are well-represented in curricular content and that students have flexible options for being exposed to and pursuing studies in the arts;
- creating equitable opportunities for students in all schools and all communities (including rural and vulnerable) to have exposure to arts programs, activities and community events.

content and skills should be inter-related. Integrating the arts provides differentiated learning opportunities and responds to the learning preferences of students. Music, art and drama can be used to build skills and competencies across content areas, as well as in specialized areas, to

engage students in their learning. It is important that we use the cultural experiences within communities, including partners in the arts, to bring a variety of opportunities for learning. As part of the organizational changes needed to increase accessibility and equity for all students, the arts

cannot just be an “urban” experience. Rural schools must be supported in finding ways for students to be more exposed to, and study, the arts and to partner with groups that can supplement learning in this area.

Second language

French

In her comparison of New Brunswick’s Anglophone sector to Alberta’s highly successful education system, Scraba wrote:

“A major difference between the two systems is the mandated French language programming in New Brunswick. However, if the research on language acquisition is to be believed, that should be a benefit to New Brunswick students. Compliance with French Immersion Policy 309 is based on time not on quality of learning. Even though legislation doesn’t allow for grouping, parents do this anyway through the French Immersion Program. The population in the English program is skewed left leaving classes with behaviour problems and special needs. A fundamental difference in the two systems is the size of the New Brunswick French Immersion program – up to 60% of the children in some districts. Alberta has a large French Immersion program, but provincially the proportion is just under 10% of the total provincial cohort in K-9.

“Virtually all Alberta school districts offer French Immersion and in small centres, the same de facto streaming experienced in New Brunswick will be an issue. However, Alberta school districts offer many different programs, so the impact of a single program is difficult to discern. Alberta does not have language

policy such as Policy 309. Nor is it a bilingual province. However, the Alberta French Immersion program is large enough K-9 for there to be several years of provincial data about Immersion students’ performance on Achievement tests. Immersion students write the same tests as their English peers, but write translations in Math, Science, and Social Studies (grades 6 and 9). They write the same English Language Arts tests, and a French Language Arts test in grades 3, 6 and 9. Results show them out-performing their English peers in all subjects. It is important to acknowledge the demographic skew in the Alberta French Immersion population, but the program attracts children from across socio-economic groups, and now includes some special needs children.

“The key variable is parental involvement, curricula that are tightly aligned with the English curricula, and high standards. Given the size of the New Brunswick immersion program, the national and international results for New Brunswick at the higher levels in reading, math and science should be comparable to those for Alberta. French Immersion should be a program that provides some educational gain. With its commitment to educating a bi-lingual populace and its tradition of intellectual leadership and scholarship, New Brunswick has potential to have superbly well-educated students. This will happen only with significant shifts in the larger community’s

beliefs about and commitment to learning. It will happen only with carefully planned changes to the education system.”

(Scraba, 2002)

Currently, New Brunswick provides three options for studying French as a second language, as described in Policy 309, French Second Language Programs (2009). Students can begin full immersion in Grade 3 or wait until they have had the benefit of the Intensive French program in Grade 5 (including Pre-Intensive French in Grade 4), then choose full immersion in Grade 6, or continue with Post-Intensive French. This is more exposure to French than in most provinces. With the exception of Quebec, New Brunswick has the highest percentage of the student population enrolled in French immersion in the country. Despite this statistic, there is little or no accessibility to immersion in many communities, with nearly 41 per cent of schools not offering a French Immersion program.

For the past 25 years, much attention, energy and resources have been dedicated to early and late immersion. Despite good intentions, the program is perceived to lack consistently effective pedagogy and student engagement. Many students opt to leave French immersion in middle school

and early high school. In 2014-15, 38.6 per cent of early immersion students, tested in Grade 12, met the program target with a proficiency level of advanced or higher. The good news is that an additional 42.7 per cent of early immersion students achieved the intermediate-plus level. This rating is considered adequate for employment requiring French, including public sector positions.

During this consultation, most of the interest in French second-language instruction was expressed as concern about quality and accessibility. There is growing concern about the second-language abilities of students and the ability of Anglophone students to stay and work in New Brunswick without adequate second-language skills. As stated, much attention, time, energy, funding and staffing have been spent on immersion programs; however, the quality and accessibility of immersion remain in question. Many educators and parents expressed concern with the plans of the provincial government to reintroduce a Grade 1 entry option for immersion, which was changed in 2008. Primarily, the concerns centered on the resources that will be needed (human and financial) to make another system-wide change. It is well known that second-language research promotes early development as optimal; however, other factors affecting the entire system must be considered. The Grade 3 immersion entry point change was well resourced and supported (financially), requiring new curriculum and hiring practices. Student achievement in this program is yet to be determined as long-term data are not yet available. Implementing the provincial government's current commitment would take further

Grades	New Brunswick education program options		
K-2	English Prime with learning experiences to introduce French language and culture		
3	English Prime with learning experiences to introduce French language and culture	French Immersion	
4	English Prime with Pre-Intensive French		
5	English Prime with Intensive French		
6-10	English Prime with Post-Intensive French	Late French Immersion	
11-12	Post-Intensive French	Blended High School Program	

financial resources and restructuring. Measures will be needed to ensure there are enough highly qualified teachers able to teach literacy and other core subjects in French in the early grades. Another continuing concern centered on providing adequate resources to meet the needs of all students. As expressed in Chapter 3, we must provide supports to the most vulnerable students, be they in English Prime classes or immersion classes. The level of support to meet student needs cannot be compromised by overall system changes. Whatever system changes are made should be done with the intention to increase support for success for all students.

Currently, the third option is the English Prime-Intensive French Program, which replaced Core French as the universal French language program. This compulsory program is for non-immersion students from Grades 4 through 10, and most high schools also offer this program in Grades 11 and 12. As we begin to track the French second-language achievement of students in Post-intensive French, results look encouraging. Fifty-four per cent of students participating in this universal

second language program are attaining at least a proficiency level of basic by Grade 10, compared to 22 per cent of students who participated in Core French. The Intensive French program currently offered was based on pilot site findings and French second-language reviews in 2010 and 2014. The focus of the second review was to understand the development of reading skills in Intensive French and to ensure that second-language literacy was the basis of the program offered. This program is being consistently implemented and monitored for success. It is providing high-quality and accessible opportunities for second-language study for students.

As Canada's only bilingual province, New Brunswick has much to celebrate. We are in a unique position in terms of our ability to study, live and work in a second language. Effort is needed to build a culture of learning where students are excited about the rich opportunity that second-language study brings to their lives. More conversations, accessibility and understanding of a second language as a life-long skill are needed to promote and encourage a love of learning a

language. Student e-portfolios will be implemented in every school during the next five years in Grades 6 to 12 so that all students can track their second-language acquisition. This will be available for students in the English Prime and immersion programs. This important work, which encourages student ownership of their learning, should continue. The Atlantic Provinces have worked to align curriculum and programming with the Common Framework of Reference (European Second Language design). New Brunswick has played a key role in this transition, and this work represents a deeper understanding of language development and successful programming that has influenced European language skills for many years. Whether second-language learning is done through immersion or other programs, New Brunswick must develop more opportunities for students to understand the benefits of speaking and understanding more than one language, and it must focus on universal development of oral language with accessibility and quality programming.

Other language opportunities

As we ensure that learners receive a quality education program that will support development of lifelong learning and success, New Brunswick must consider other language opportunities for students as well as French. Some schools have

provided options such as Spanish and Mandarin. Through an increased focus on flexible options for students and more partnerships with post-secondary and community groups, there may be unique opportunities to increase second- and third-language skills for learners.

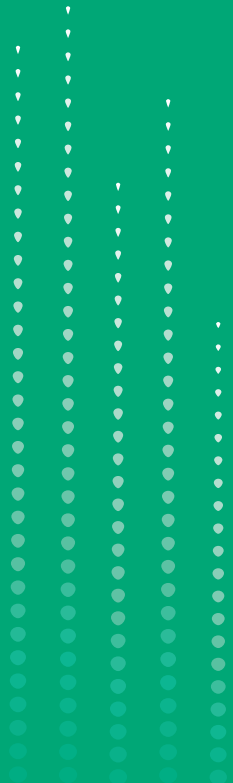
Recommendation

Improve and expand opportunities for French second-language instruction

Create universal, flexible, high-quality French second-language opportunities, including high expectations for achievement and student self-assessment, and provide flexible opportunities for the study of other languages by:

- developing strategies to ensure that students and parents are well aware of the opportunities to learn French as a second language and understand the importance of second-language study;
- continuing to develop personal student portfolios for self-assessment that help students understand and document their continuum of French second-language proficiency;
- ensuring that all communities have equitable access to French language programs with the goal of attaining current proficiency targets;
- working with post-secondary institutions, provide French second-language opportunities for increased exposure for students and educators;
- focusing on increasing the quality of French Immersion pedagogy (content-specific as well as French as a language) to ensure students receive quality instruction;
- revisiting the implementation of Intensive French to ensure continued effectiveness as an equitable option for French language instruction;
- ensuring that the reversal of the Grade 1 entry option for French Immersion is implemented in a manner that does not have a negative impact overall on the system. Careful attention should be paid to our ability to staff this change adequately and that we have the financial resources to prioritize this as a system change. If the projected impact on the system is more negative than positive, this decision should be reconsidered;
- working with communities, post-secondary institutions, e-learning opportunities and flexible curriculum options to provide choice and creativity in second- and third-language studies for learners.

Chapter 7: Learning: School culture, leadership and the teacher



The following statement was made in *Learning from Leadership: Investigating the Links to Improved Student Learning*, the final report of research to the Wallace Foundation:

“While stability is often associated with resistance and maintenance of the status quo, it is in fact difficult for leaders and other educators to leap forward from a wobbly foundation. To be more precise, it is stability and improvement that have this symbiotic relationship. Leaping forward from a wobbly foundation may well produce change, but not change of the sort that most of us value – falling flat on your face is

the image that comes to mind. Wobbly foundations and unwise leaping help to explain why the blizzard of changes adopted by our schools over the past half century have had little effect on the success of our students. School reform efforts have been most successful in those schools that have needed them the least. These have been schools with well-established processes and capacities in place, providing foundations on which to build – in contrast to those schools, the ones most often of concern to reformers, short on essential infrastructure.”

(Wallace Foundation, 2010)

The school

A learning culture is established in a school through leadership and the daily practice of the adults in the building. School culture that reflects a focus on student achievement with careful attention to high expectations, clearly articulated, and understood by students, parents and staff provides the environment for students to succeed. This learning culture is dependent on many factors, including the conditions for meeting the needs of students as described in Chapter 4 and clarifying “what” we want students to know and be able to do as defined in Chapter 6. School culture is the set of norms, values and beliefs, rituals and

ceremonies, symbols and stories that make up the persona of the school. School culture is also influenced by the foundational procedures and expectations established and consistently applied by the staff.

In *Shaping School Culture; Pitfalls, Paradoxes and Promises*, Kent Peterson said:

“In a school with a positive culture, there’s an informal network of heroes and heroines and an informal grapevine that passes along information about what’s going on in the school... a set of values that

supports professional development of teachers, a sense of responsibility for student learning, and a positive, caring atmosphere exist. On the other hand, in a toxic school environment, teacher relations are often conflictual, the staff doesn't believe in the ability of the students to succeed, and [have] a generally negative attitude. Staff and administrators in a positive school culture believe they have the ability to achieve their ambitions. Their counterparts operating in a negative school environment lack faith in the possibility of realizing their visions."

(Peterson, 2009)

For the next education plan to have the impact that learners deserve, school leaders and all staff should understand the importance of school culture and the influence of their own beliefs, attitudes and actions on student success. As we attend to the recommendations in the preceding chapters, the primary work will need to be done by school leaders and education staff, on-site, in our schools.

During this consultation, parents and students expressed sincere appreciation for the dedication, long hours and attention of the personnel serving in our schools. One parent wrote:

"You can feel the energy and positive approach in my son's school the minute you walk in the door. I know what is expected of him, he knows what is expected of him and the teachers believe in him. The principal greets us at the door each day and I know that my son is in good hands. He is safe and is expected to work hard. He gets help when he needs it and has grown in his own sense of responsibility. I don't know what you call that feeling that I get when I walk in but that is what should be in all schools."

The feeling so eloquently described by this parent is school culture.

School effectiveness is about what we can accomplish with learners. In other words, what is the overall impact of the school on student achievement, and ultimately, the skills and competencies identified in the New Brunswick graduate profile? We want to ensure schools create the conditions for students to be successful.

Fullan explained "the coherence framework" in his book *Coherence: The Right Drivers in Action for*

Cathy Lassiter makes the following observation in *The Secrets and Simple Truths of High-Performing School Cultures*:

"The answer to school underperformance is the intrinsic motivation of educators. Three secrets of understanding high-performing school cultures are: humans are driven internally to seek purpose and conquer challenges; that consistent implementation of a few vital behaviors within the school environment can change teaching outcomes dramatically, and that cooperation and collaboration are evolutionary. The truths: teaching talent makes the difference; leaders can't do it alone; and data and accountability are critical friends."

(Lassiter, 2012)

Schools, Districts, and Systems. He said that, for schools, districts and school systems in general to be successful, they must understand the following four components and address them simultaneously and continually each day:

- focused direction – purpose driven, establishes goals that impact, clarifies strategies and understands change leadership (a few priorities, consistent practice and messaging and leadership at all levels that understand the change process);
- cultivating collaborative cultures – exemplifies a culture of growth, has learning leadership, builds capacity and has collaborative structures in place (professional learning communities focus on student learning);
- deepening learning – clarity of learning goals, precision of pedagogy (instructional practice and use of technology) and shifting practice through capacity building (balancing the need for continuous improvement of foundational skills while identifying and supporting innovation to foster new learning outcomes); and
- securing accountability – accountability is both from the inside out and from the outside in (building capacity and evidence-based decision-making at the school, district and provincial levels).

(Fullan, 2015)

Ontario has successfully worked with this framework to improve school effectiveness. Within this framework, every New Brunswick school has the potential to improve student learning. As outlined in the previous chapters, with the adequate support for learners and school staff,

we will authentically be able to expect this type of focus in all schools.

From 2010 to 2015, educational practices of 177 schools were reviewed. This was accomplished through the New Brunswick School Improvement Review Service by means of a combination of internal and external review teams using a common set of research-based indicators of school success. The process included site visits, interviews, focus groups, classroom observations, reviews of documents and data, and professional collaborative dialogue between internal and external review

teams following independent examination of the evidence collected. The results were provided to the provincial government, districts and schools for evidence-based decision-making and improvement planning. The service was discontinued as a provincial program in 2015, and tools for the review process are now provided to districts for use at their discretion.

An analysis of all the evidence of school effectiveness identified four major areas of focus to improve schools:

- systemic school planning;
- leadership and training;
- learning environments; and
- classroom practice.

Within these categories, school procedures and adult practices should be developed that reflect high-yield, research-based, effective practices that support the success of schools. There is strong evidence of what works in schools, and it is important to support principals consistently in this work.

The district

In this report, the focus has been on children and youth and the support needed to ensure their success. The school is at the centre of this work as the closest link (other than the family) to the learner. Processes for supporting the work of schools are primarily established through the superintendent. District staffs include personnel with exceptional management and leadership skills in education and student support as well as services such as finance, facilities, technology, human resources and transportation. The decisions and daily practices of district staff have an impact on schools, which, in turn, influence student learning. It is critically important for all district staff to understand the prioritized focus and to have a decision-making protocol that ensures evidence-based decisions are made collaboratively to support students. As we consider Fullan's four components for success as a starting point for school culture, we must ensure that all systems are aligned to the established goals and actions from the next education plan. The work of the district offices is critical to student

success and cannot be overlooked. As we pursue a stronger learning culture, district personnel are key in ensuring that the recommendations in the previous chapters can be implemented. Maintaining a provincial focus, establishing a culture of collaboration as a district model, ensuring accountability at all levels of decision making, and deepening learning through clear expectations and support of effective instruction and assessment practices are needed in all districts. Superintendents should work closely with each other to ensure consistent practice and focus.

As previously recommended, districts need flexibility and autonomy for a timely response to the needs of learners. As schools identify critical issues, district staff must be willing and able to solve problems and provide effective solutions to support learners. This ability to respond reflects a servant leadership philosophy as stated by John Greenleaf of the Robert K. Greenleaf Center for Servant Leadership:

"Servant leadership is a philosophy and set of practices that enriches the lives of individuals, builds better organizations and ultimately creates a more just and caring world."

(www.greenleaf.org)

John Maxwell described servant leadership as "getting ahead by putting others first" (Maxwell, 1998). District staff may feel further removed from the learner since, for the most part, they are not in schools dealing with students daily. Transportation, facility, finance, technology and human resource decisions affect children and youth. Supporting the staff members who are in contact with learners is fundamental for district staff. With a student-centered district culture and understanding of their impact on student learning, districts have important work to do to ensure the plan increases student success.

DECs also play a role in supporting school culture. As governing bodies, they establish Ends Policies (see Chapter 2) and district education plans. They also are responsible for hiring the superintendent and establishing their own working culture. Their

important decisions, attitudes and actions influence school culture. Again, this work should be aligned to the education plan to ensure consistent and focused work in the province. DEC's are encouraged to use Fullan and Quinn's Coherence

Framework as a starting point when planning for continuous improvement.

(Fullan and Quinn, 2016)

Support staff

Although this report has not primarily addressed the work of adults who support learners, other than teachers and leaders, there is sincere recognition of all adults in the education system working in the service of children and youth. Bus drivers often extend the first greeting of the day for many children. Custodians, secretaries, librarians, maintenance and technical staff and education assistants create lasting memories and opportunities for students to grow and be successful. When students are asked who has influenced them the most during their years in school, they often refer to support staff as frequently as they talk about teachers. Educational assistants and librarians support learning each day. It is necessary that all staff have deep understanding of the support needed by learners and that they have opportunities to provide expertise and guidance when appropriate. Professional learning opportunities for support staff must be part of the next education plan, and the same high expectations for establishing a learning culture should be part of the work of support staff. Educational assistants, in particular, must have deep understanding of strategies to support the needs of learners. Several educational assistants submitted comments requesting more help in how to care for children and youth. They have a difficult position and should be supported to ensure a high quality of service for learners.

Recommendation

Create effective learning cultures

Ensure all schools have highly effective learning cultures by:

- determining a focused direction and ensuring that it is supported, from all levels, to ensure deep implementation;
- expecting and creating alignment of provincial and district plans, decisions, actions and policies to the plan;
- ensuring school leaders are highly skilled in establishing a positive learning culture, establishing effective procedures and adult actions, and that they understand their critical role in the learning success of students;
- providing parents and students with clear messages about their responsibility in creating an effective learning culture. This includes positive behaviour plans and expectations, attendance, learning targets, adult and student respect, and compliance with policies and guidelines;
- supporting and expecting collaboration within the province, district and schools, based on evidence, to determine next steps in supporting learners;
- deepening the understanding of effective pedagogy among all staff to create a more focused culture of learning;
- providing districts and schools with flexibility for funding and resource allocation in response to learner needs;
- creating accountability expectations from within the schools and districts to ensure all decisions are measurably supporting student learning;
- creating a public monitoring plan for provincial government decisions and actions that align to this plan;
- revisiting collective agreements and other human resource decisions to ensure effective, efficient and timely support is available to all learners;
- supporting centres of learning that can model successful implementation of indicators of effective school culture based on Fullan and Quinn's Coherence Framework.

There is a need to align job descriptions, contracts and the overall culture of support to ensure a student-centered focus. Determining the needs of the learner first and then applying the solution may change how we allocate student services. Alignment of the needs and the support provided must come first. In particular, the allocation and the negotiated contract of educational assistants must be reviewed to ensure we are adequately

and efficiently using resources. Vulnerable schools and classes have unique needs and often require flexibility in applying appropriate support. The number of hours and the assignment of staff as negotiated in the collective agreement for educational assistants are perceived to hinder the support provided to students where needed. In the current structure, the lack of flexibility that districts and schools have in assigning and reassigning

and determining the hours of support needed for a student was raised as a significant barrier to student success. The Canadian Union of Public Employees (CUPE) and the provincial government are strongly encouraged to review and revise the collective agreement for educational assistants to ensure a student-centered learning focus.

The principal

As stated by Robert Marzano, Timothy Waters and Brian McNulty in *The Inner Game of Teaching*:

"The traditions and beliefs about leadership in schools are no different from those regarding leadership in other institutions. Leadership is considered to be vital to the successful functioning of many aspects of a school. Given the perceived importance of leadership, it is no wonder that an effective principal is thought to be a necessary precondition for an effective school!"

(Marzano, Waters, McNulty, 2005)

In most studies, effective leadership and classroom practice are considered equally vital to student success. A phrase often heard is "how goes the principal, goes the school." For this report, the term "principal" is used to represent the school administration team that often includes vice principals. This administrative team has primary responsibility for creating an effective school culture and ultimately influencing student achievement.

As discussed in Chapter 6, student achievement and overall graduation success are linked to the

ability of teachers to effectively engage students, manage behaviours and focus instruction on the skills and competencies that students must have when they graduate. Aligned to this are the principal's ability to provide a well-managed learning and working environment as well as his or her ability to ensure there are instructional leadership and guidance to build the competencies in the classroom. The principal is the key relationship-maker; in every way, a principal must be skilled at building relationships with parents, community members, teachers, support staff and, of course, students.

Throughout the submissions, interviews and surveys, principals expressed their need to have more support, professional learning and understanding of their role and the expectations of them. The dedication of principals to their schools was apparent, and their willingness to develop the skills necessary to lead their schools effectively was noted. Overall, principals are hard-working and feel the immense responsibility they have as leaders in their schools. For the most part, principals could articulate that their daily actions and decisions affect the success of the learner. Creating

the conditions for learning is the ultimate responsibility of the principal.

Effective school leadership is the responsibility of the provincial government, district leaders and principals. Leadership development must be strategic and sustainable as well as include ongoing professional learning opportunities and support for principals. Balanced with this is the need to ensure focused direction so that principals clearly understand what is required of them to lead schools. During the past several years, there have been fewer opportunities for principals to work and learn together to develop leadership skills. As initiatives have come and gone, and as financial and staffing changes have been made, principals have had to make adjustments at the school level, often feeling overwhelmed with the enormous responsibility of leading organizational change. Districts have struggled to find the resources to support principal development, and a provincial focus is now needed to ensure consistent leadership practices in schools. It would be timely and critically important to the principals if provincial networking opportunities were increased again. Principals expressed a need to have professional

learning and time to meet together, and this should not be left just to the districts.

As previously stated, Fullan's and Quinn's Coherence Framework can provide principals with a foundational reference to align their work and the work of all adults in their building:

"Only the principals who are equipped to handle a complex, rapidly changing environment can implement the reforms that lead to sustained improvement in student achievement. Effective school leaders are

key to large-scale, sustainable education reform. For some time, educators have believed that principals must be instructional leaders if they are to be the effective leaders needed for sustained innovation. Newmann, King, and Youngs (2000), for example, found that school capacity is the crucial variable affecting instructional quality and corresponding student achievement. And at the heart of school capacity are principals focused on the development of teachers' knowledge and skills, professional community, program coherence, and technical resources."

(Fullan and Quinn, 2016)

The areas of concern identified in the School Improvement Review process are also critical focus points for setting direction in the province. Overall, leadership development that is provincially defined and supported as well as reflects high expectations for deep implementation in all schools should be the driving force in consistent application of this plan.

Recommendation

Strengthen school leadership (beginning in Year 1 and Year 2)

New Brunswick should demonstrate that school leadership is a priority by:

- defining the skills, competencies and expectations of a school leader;
- hosting a provincial forum for networking, collaborative learning and open dialogue between the provincial government and principals;
- developing a provincial centre of learning as a collaborative network with post-secondary institutions, the New Brunswick Teachers' Association/New Brunswick Teachers' Federation, business leaders, government, districts and principals to ensure long-term, quality and sustainable professional learning, research and networking opportunities for all principals, leading to a self-regulating professional organization for school leaders;
- collaborating with post-secondary institutions to ensure that principals have access to current, research-based courses of study aligned to school effectiveness to receive and maintain certification as school leaders;
- providing mentoring and coaching opportunities for school leaders to continuously develop the skills and competencies needed to effectively lead their schools;
- establishing demonstration schools that exemplify the necessary effective practices and provide opportunities for school leaders to learn from these sites;
- ensuring that the characteristics of the Coherence Framework are expected and supported in each school;
- creating leadership competence and expertise in evidence-based decision-making that provides immediate attention to the needs of students in each school;
- expecting that school effectiveness is monitored by student growth and student achievement;
- developing Key Performance Indicators for successful school leadership that are monitored and ensuring school leaders receive feedback about their performance on a regular basis;
- ensuring that hiring criteria and continuing contracts of school leaders are evidence-based and aligned to school effectiveness;
- researching best practices in other jurisdictions with successful school leadership models, including considering the possible benefits of removing principals from the New Brunswick Teachers' Federation.

The teacher

As stated by Parker Palmer in *The Courage to Teach*:

"I am a teacher at heart and there are moments in the classroom when I can hardly hold the joy. But at other moments, the classroom is so lifeless or painful or confused – and I am so powerless to do anything about it – that my claim to be a teacher seems a transparent sham. What a fool I was to imagine that I had mastered this occult art – harder to divine than tea leaves and impossible for mortals to do even passably well."

(Palmer, 1998)

The final thoughts in this report bring us to the very important and critical role of the teacher. Every day, more than 7,000 teachers lead our most precious gifts, our children and youth, in their personal learning journey. Most teachers, despite their years of service, can clearly remember their first day. Teachers share in the nervous energy that learners experience at the first of every school year. They enter the profession with the best intentions of sharing their knowledge and experiences with their students. They have creative ideas and they know that learning is more than a textbook or an Internet site. They build relationships and often are called on to be nurse, social worker, cheerleader, parent and disciplinarian. They balance this with their primary role to ensure students develop skills and competencies and master the learning outcomes of prescribed curriculum. In countries such as Finland and in some provinces with high levels of student success, teachers are highly regarded and respected, and they are expected to have expertise in subject content and instructional

practice. These teachers are well supported, and barriers to student success, such as mental health and social concerns, are addressed so they can appropriately focus on the learning needs of the student. This is the culture of learning desired in New Brunswick.

As stated by Pasi Sahlberg in *Finnish Lessons*:

"Finland is not a fan of standardization in education. However, teacher education in Finland is carefully standardized. All teachers must earn a master's degree at one of the country's research universities. Competition to get in to these teacher education programs is tough; only the best and brightest are accepted. As a consequence, teaching is regarded as an esteemed profession, on par with medicine, law and engineering. There is another 'teacher quality' checkpoint at graduation from School of Education in Finland. Students are not allowed to earn degrees to teach unless they demonstrate that they possess knowledge, skills and morals necessary to be a successful teacher. But education policies in Finland concentrate more on school effectiveness than on teacher effectiveness. This indicates that what schools are expected to do is an effort of everyone in a school, working together, rather [than] teachers working individually."

(Sahlberg, 2016)

In previous chapters, several recommendations reflect the focus and direction needed to support educators. In particular, the following recommendations from chapters 2, 4 and 6 are necessary to support the skills and competencies of educators:

- Defining the professional job expectations of an educator and aligning this job description to the skills and competencies needed to meet the goals established in the next education plan;
- Providing on-going professional learning to educators to support the development of their skills in accordance with the "job description";
- Ensuring that educators are highly skilled in differentiating instruction and response to intervention, and creating cultures of learning to meet the diverse needs of learners;
- Ensuring that school leaders are highly skilled as instructional leaders, including the use of classroom observation protocols, who provide feedback and support to educators about effective instruction and assessment practices;
- Providing opportunities for school leaders and educators to deepen their understanding of the value and work of collaborative teams;
- Expecting all educators and school leaders to work collaboratively and share ownership of the needs of their learners;
- Developing centres of learning in each district that require action research and provincial leadership in at least one action item from the next education plan. This work will be led at the district level and built from a guiding coalition of school, district, university and department educators and community partners;
- Creating systems of support through coaching, mentoring, demonstration sites, model

- classrooms and schools, and opportunities for educators and leaders to learn from each other in localized, hands-on learning environments;
- Working with post-secondary institutions to align course options and professional learning opportunities with the skills and competencies needed by educators and school leaders;
 - Establishing a self-regulating professional governance structure to oversee certification, licensing, discipline and professional learning opportunities for educators;
 - Describing the instructional expectations needed to support student mastery of the New Brunswick Graduate Profile competencies and immediately beginning a professional learning plan to change practice;
 - Developing observation protocols with principals and teachers to ensure quality feedback is provided to teachers based on instructional expectations;
 - Building application of knowledge, and experimental learning, in authentic and engaging lessons to support skill development;
 - Supporting K-2 educators to deepen understanding of how to build foundational literacy and STEM components while providing time for integrated units of social studies, the arts, health education and physical education. Extended time may be required to deliver engaging lessons with investigative thinking and problem-solving, ongoing formative assessment and incremental steps toward self-regulation and independent learning;
 - Providing K-2 and upper elementary teachers with sufficient support and resources to ensure strong instructional practices in the foundational skills of literacy;
 - Supporting educators as they develop strong student-teacher relationships;
 - Providing middle schools with adequate resources, collaborative working time and professional learning to support their teams and to deepen understanding of the needs of this age group;
 - Developing expertise to equip teachers to provide explicit instruction in the fundamentals of mental fitness and pro-social behaviour, just as the fundamentals of literacy, critical thinking and physical education are explicitly taught;
 - Developing skills and competencies of educators and support staff to work successfully with learners affected by poverty;
 - Creating ongoing professional learning opportunities for teachers to develop necessary expertise in differentiated instructional practices, and monitoring implementation;
 - Providing the support and resources to ensure that meeting the needs of students is a collaborative effort, led by the teacher responsible, with sufficient autonomy to provide flexibility in time on task, alternative locations for learning, assignment of personnel to the student, program delivery, etc;
 - Developing school-based expertise for collaborative teams to meet the needs of individual students effectively based on evidence of need and intervention plans;
 - Expecting teachers and school administrators to monitor progress closely and to communicate academic and behavioural expectations with parents and students on an ongoing basis;
 - Supporting educators to develop a culture of rigorous and relevant learning;
 - Centering instructional practices and classroom organization on students' need for autonomy, competence, and relatedness to foster their motivation and ownership of learning;
 - Developing teacher expertise in the instructional steps involved the gradual release of responsibility for learning to students;
 - Ensuring teachers have a detailed understanding of what students must accomplish at each grade level so they have the prerequisite skills and knowledge for the next grade;
 - Ensuring educators are highly trained to teach reading and writing skills as well as having a deep understanding of multi-modal literacy;
 - Developing courses and expertise in partnership with New Brunswick universities to provide educators with the skills and competencies needed;
 - Creating expectations and opportunities for educators to develop student-centred instructional practices that support critical thinking, problem-solving, innovation, inquiry-based and experiential learning as well as requiring higher-order thinking skills;
 - Creating and supporting the development of centres of learning for STEM-focused skills

and competencies and innovation for educators and learners;

- Providing educators with opportunities to build skills and competencies in the use of music, art and drama in daily instructional practices to engage students;
- Working with post-secondary institutions, provide French second-language opportunities for increased exposure for students and educators;
- Focusing on increasing the quality of French Immersion pedagogy (content-specific as well as French as a language) to ensure students receive quality instruction.

Educators must be well equipped to plan highly engaging, innovative and instructionally effective lessons. As educators plan for classroom

instruction and assessment of student learning, organizing optimum conditions that offer time for same content/grade level teachers to work together to design highly engaging and rigorous lessons is most effective. Many schools have scheduled this collaborative planning time for teachers. Ten years ago, educators were provided many opportunities to learn about collaborative teaming and planning as well as how to develop common assessment strategies. Many schools developed excellence in this effective way of meeting student needs, and some districts and schools are still working to achieve a collaborative culture. Unfortunately, this is not a consistent expectation, and, in many parts of the province, teachers are feeling isolated in determining how to interpret curriculum, plan lessons and assess to provide timely interventions for students.

Hattie states in *Visible Learning for Teachers: Maximizing Impact on Learning*:

“The ultimate requirement is for teachers to develop the skill of evaluating the effect that they have on their students. In other words, know thy impact. Teachers need to be able to react to a situation, the particular students and the moment.

There is often a rush to solve the problem of ‘the teachers’ but this is a mistaken direction. Instead the message is to enable each teacher to better understand his or her effect on his or her students, and to assist teachers to develop a mind frame of evaluation to help them to move into the group of highly effective teachers that we all should be inspired to join.”

(Hattie, 2012)

Conclusion

Teachers in New Brunswick are known as nurturing and hard working, and many have expressed an interest and a need for more opportunities to develop effective, differentiated instructional practices. As stated by Angela Peery in *Power Strategies for Effective Teaching*:

“Instructional strategies are the actions of the teacher intended to lift the cognition of students in relation to specific learning goals. They are the methods by which the teacher increases student learning.”

(A. Peery, 2009)

As Stephen White stated in *Beyond the Numbers*:

“Instructional Strategies are defined as “teacher-to-student interaction that requires training to acquire, requires practice with feedback to perfect, and is recognizable by discrete elements or components.”

(White, 2011)

During the consultations, there was much support for the hard-working, dedicated efforts of teachers. Throughout all submissions, attention was paid to the need for teachers to have professional development opportunities and to be well supported in their classroom practice. Effective instruction and assessment practices have been well researched and much information is available that supports the need to develop teacher expertise in this area.

As Ceri Dean, Elizabeth Ross Hubbell, Howard Pitler and Bj Stone stated in *Classroom Instruction*

That Works: Research-based Strategies for Increasing Student Achievement (2nd edition):

“Instructional strategies ... are like instruments in an orchestra. Each has its own characteristics, contributes to the orchestra in particular ways, and must be masterfully played both alone and in combination with other instruments to obtain the desired effect.”

(Dean C., E.Hubbell, H.Pitler, and B.Stone, 2012)

The critical importance of teacher competencies is underlined in the following research findings:

Harold Wenglinsky’s analysis of National Assessment of Educational Progress (NAEP) data, summarized in his report, *How Teaching Matters: Bringing the Classroom Back Into Discussions of Teacher Quality*, provides evidence of the importance of professional development for teachers. He studied data gathered from more than 15,000 Grade 8 mathematics and science students to see if teacher inputs (e.g., number of years teaching, academic degree, and similarity between college major and subject being taught), professional development or classroom practices influenced student performance. He found that professional development is an important factor in predicting higher student achievement. For example, students in mathematics classes taught by teachers who received professional development in working with different student populations outperformed their peers by 107 per cent on the NAEP. In comparison, mathematics students taught by teachers who majored or minored in mathematics, another important factor, outperformed their peers by 39 per cent.

These findings support Wenglinsky's finding that, "changing the nature of teaching and learning in the classroom may be the most direct way to improve student outcomes."

(Wenglinsky, 2000, Page 11)

There is evidence of districts, schools and classrooms working to plan engaging lessons and create effective instructional frameworks and assessment plans. Instructional teams (Professional Learning Communities) are collaborating to use student data effectively to plan next steps and meet student needs. Consistent efforts are needed to ensure that this is the norm. Professional learning, classroom observations and the work of collaborative teams must be planned, implemented and monitored for highly effective instruction and assessment practices to be present in all classrooms. This work affects individual student growth as teachers use evidence appropriately to determine what is needed for student success. In reviewing the results of the New Brunswick School Improvement Review of 177 schools, it is clear that much work must be done in the areas of curriculum, instruction, assessment and, particularly, student ownership of learning.

These data should inform practice and planning for change. It is important to have provincial direction and focus on classroom practice and that educators are highly supported in their learning and application of effective instruction. Learners respond to engaging lessons, and teachers know the joy that they feel when they reach students. As Hattie (2012) stated, we must know our impact. From system reform and cultural shifts, we must focus on what is required to best meet the needs of learners.

New Brunswick School Improvement Review – 2010-15 (177 Anglophone schools)

Indicator	Percentage of schools at the highest level of performance
New Brunswick curriculum outcomes, achievement standards/indicators and available look-fors are the foundation for teacher planning (daily and long term).	41.2
New information is linked to existing and personal knowledge and previously learned concepts.	35.0
Teachers provide opportunities for students to work collaboratively and co-operatively.	27.7
Learning opportunities are designed to maximize relevance, make real-world connections, and encourage and recognize learning beyond the school.	27.1
Teachers use strategies in their subject area to strengthen literacy development.	22.6
Teams meet regularly to discuss teaching methods, strategies, ideas and innovations.	37.3%
The principal ensures structures are in place to observe and provide ongoing feedback for teachers, through walkthroughs and observations, using available look-fors and standards.	18.6%
High academic expectations are held for each student and students know these expectations.	18.1%
Teachers create a common understanding of quality work with students through the use of rubrics, indicators, exemplars and performance levels (co-constructed or student-friendly).	15.8%
Students are engaged in their learning.	14.1%
Teachers use a variety of questioning techniques to engage student thinking.	9.0%
There is an appropriate balance of teacher-and student-directed instruction.	2.9%
Learning experiences include higher-order thinking skills.	0.6%

Recommendation

Strengthen professional development for teachers

Ensure educators are highly skilled, valued as professionals, and provide effective learning experiences for learners that lead to mastery of the New Brunswick graduate profile by:

- prioritizing and supporting all recommendations from previous chapters that affect the professional development and competencies of educators;
- creating a deep understanding of the importance of lesson design and implementation for effective instruction;
- developing effective professional development opportunities for educators that are differentiated and reflect the professional standards established by Learning Forward (www.learningforward.org);
- reviewing how time provided for professional learning is allocated throughout the school year. The time provided must be more effectively structured for educators to collaboratively study, research and develop the skills and competencies needed to deeply implement evidence-informed practices. This is particularly urgent in the Anglophone sector;
- developing consistent expectations for educators that are reflected in hiring practices, observations, feedback and evaluation of educators;
- promoting innovative, creative and student-centered strategies in all classes;
- expecting that partners such as post-secondary institutions, the New Brunswick Teachers' Association/New Brunswick Teachers' Federation, business leaders, government, districts, principals and teachers work collaboratively to create the needed courses of study, professional learning, certification, licensing and self-regulating organization required to ensure long-term, sustainable and current effective practices in schools;
- strengthening internal and external communication practices to support a more positive understanding of the critical role of educators.

References

- Alexander, C. The economic case for investing in ECE ([N.p.]: CD Howe Institute, November 2015)
- Bennett, M. J. (2004). "Becoming interculturally competent." In J.S. Wurzel (Ed.) *Toward multiculturalism: A reader in multicultural education*. Newton, MA: Intercultural Resource Corporation.
- Bernhard, J., Freire, M. and Mulligan, V. (2004). *Ateliers canadiens sur le rôle parental*, Chestnut, Toronto.
- Boyle, M. H. and Willms, J. D. (2002). *Impact evaluation of a national, community-based program for at risk children in Canada*. Canadian Public Policy/Analyse de Politique, 28, Part 3, 461-482.
- Boekaerts, M. (2009). "Goal-directed behavior in the classroom." In K. R. Wentzel and A. Wigfield, *Handbook of motivation at school*. New York: Routledge
- City, E., Elmore, R., Fiarman, S., & Teitel, L. (2009). *Instructional Rounds in Education*. Cambridge: Harvard Education Press
- Code.org. www.code.org
- Dean, C. B., Hubbell, E. R., Pitler, H., and Stone, B. (2012). *Classroom Instruction that works: Research-based strategies for increasing student achievement*. Alexandria: ASCD
- Downey, J., and Landry, A. (1992). *Schools for a New Century. Report of the Commission on Excellence in Education*. Fredericton: Province of New Brunswick
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by Doing*. Bloomington: Solution Tree Press
- DuFour, R. (2015). *In Praise of American Educators*. Bloomington: Solution Tree Press
- Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York: Ballantine Books
- Eaker, R., & Keating, J. (2012). *Every School, Every Team, Every Classroom*. Bloomington: Solution Tree Press
- Engineers and Geoscientists of New Brunswick. www.apegnb.com
- Edutopia, (January 2013). www.edutopia.org
- Friendly, M. (2000). *History and vision: Blending child care and early childhood education*. Childcare Resource and Research Unit Centre for Urban and Community Studies University of Toronto, Toronto, Social Policy Research Unit University of Regina Canada 2: *Putting science into action*. Toronto, ON: Council for Early Childhood Development
- Fullan, Michael. (2010). *All Systems Go*. Thousand Oaks: Corwin Press, Inc.
- Fullan, Michael. (2010). *Motion Leadership*. Thousand Oaks: Corwin Press Inc.
- Fullan, Michael. (2014). *The Principal; Three Keys to Maximizing Impact*. San Francisco: Jossey-Bass

- Fullan, Michael. (2015). *Coherence*. Thousand Oaks: Corwin Press, Inc.
- Fullan, M., & Quinn, J. (2016). *Coherence: The Right Drivers in Action for Schools, Districts, and Systems*, Corwin Press and the Ontario Principals' Council.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge
- Hattie, J. (2012). *Visible learning for Teachers: Maximizing impact on learning*. New York: Routledge
- Hernandez, D. (2012). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Baltimore: Annie E. Casey Foundation
- Jensen, E. (2009). *Teaching with Poverty in Mind*. Arlington: ASCD
- Jensen, E. (2013). *Engaging Students with Poverty in Mind*. Arlington: ASCD
- Kilgore, S.B., and Reynolds, K. (2011). *From Silos to Systems*. Thousand Oaks: Corwin Press Inc.
- Kotter, J. Kotter International. www.kotterinternational.com
- Landry, R. (2010). *Petite enfance et autonomie culturelle : là où le nombre le justifie... V*, Moncton: Institut canadien de recherche sur les minorités linguistiques
- Landry, R., and Rousselle, S. (2003). *Éducation et droits collectifs : au-delà de l'article 23 de la Charte*, Moncton: Éditions de la Francophonie
- Lareau, A. (2003). *Unequal Childhoods Class, Race, and Family Life, With an Update a Decade Later*. Berkeley: University of California Press
- Lareau, A., & Weininger, E. "The Context of School Readiness: Social Class Differences in Time Use in Family Life." Pp. 155-188 in *Early Disparities in School Readiness* (edited by Alan Booth and Anne Crouter). Mahwah, NJ: Lawrence Erlbaum. 2007
- Lassiter, C. (2012). *The Secrets and Simple Truths of High-Performing School Cultures*. Englewood: Lead and Learn Press
- Learning from Leadership: Investigation the Links to Improved Student Learning*, Final Report of Research to the Wallace Foundation. (July 2010). University of Minnesota: Karen Seashore, Louis Kyla, L.Wahlstrom, Michael Michlin, Molly Gordon, Emanda Thomas. University of Toronto: Kenneth Leithwood, Stephen E. Anderson, Blair Mascall, Tiiu Strauss, Shawn Moore. New York: The Wallace Foundation
- Lero, D.S., Irwin, S.H., & Darisi, T. (2006). *Partnerships for Inclusion – Nova Scotia: An Evaluation Based on the First Cohort of Child Care Centres*. Guelph, ON: Centre for Families, Work and Well-Being, University of Guelph
- Maxwell, J. (1998). *The 21 Indispensable Qualities of a Leader*. New York: Harper Collins/Thomas Nelson Publishing
- Marzano, R., & Pickering, D. (2011). *The Highly Engaged Classroom*. Bloomington: Solution Tree Press
- Marzano, R., & Marzano, J. (2009). *The inner game of teaching*. In R. Marzano, *On Excellence in Teaching*. Bloomington: Solution Tree Press
- Marzano, R., Waters, T., & McNulty, B. (2005). *School Leadership that Works*. Arlington: ASCD
- MacKay, Wayne. (2007). *The MacKay Report on Inclusion*. Fredericton: Province of New Brunswick
- McCain, M., & Mustard, J. F. (1999). *Early years study: Reversing the real brain drain*. Toronto, ON: Ontario Children's Secretariat
- McCain, M.N., Mustard, J.F., & McCuaig, K. (2011). *Early Years Study 3: Making Decisions, Taking Action*. Toronto: Margaret & Wallace McCain Family Foundation
- McCain, M., Mustard, J. F., & Shanker, S. (2007). *Early years study*
- McCuaig, K., & Dhuey, E. (2015). *Child Care in New Brunswick: The social and economic impacts*. Toronto, ON: Atkinson Centre for Society and Child Development, OISE/University of Toronto
- Mental Health Commission of Canada. (2013). *School-Based Mental Health and Substance Abuse Consortium*
- McNulty, B., & Besser, L. (2011). *Leaders Make it Happen*. Englewood: Lead and Learn Press
- National Council of the Teachers of English. www.ncte.org

National Council of Teachers of Mathematics. www.nctm.org

National Research Council, Committee on Increasing High School Student's Engagement and Motivation to Learn. (2004). *Engaging schools: Fostering high school student's motivation to learn*. Washington, DC: National Academics Press

New Brunswick Department of Post-Secondary Education, Training and Labour

Organisation for Economic Co-operation and Development (OECD). (2006). *Starting strong II: early childhood education and care*

Palmer, P. (1998). *The Courage to Teach*. New York: Jossey-Bass

Payne, R. K. (2005). *A Framework for Understanding Poverty*. Texas: Process, Inc.

Peery, A. (2009). *Power Strategies for Effective Teaching*. Englewood: Lead and Learn Press

Peterson, K. (2009). *School Culture: Pitfalls, Paradoxes and Promises*. San Francisco: Jossey-Bass.

Porter, G., & Aucoin, A. (2012). *Strengthening Inclusion: Strengthening Schools*. Fredericton: Province of New Brunswick

Province of New Brunswick (2008). *Be ready for success: A 10-year early childhood strategy for New Brunswick*. Fredericton: Department of Education. www.gnb.ca/education

Province of New Brunswick (2008). Policy 711, Healthier Foods and Nutrition in Public Schools. Fredericton: Department of Education and Early Childhood Development. www.gnb.ca/education

Province of New Brunswick (2009). Policy 309, French Second Language Programs. Fredericton: Department of Education and Early Childhood Development. www.gnb.ca/education

Province of New Brunswick (2013). Policy 322, Inclusive Education. Fredericton: Department of Education and Early Childhood Development. www.gnb.ca/education

Province of New Brunswick (2014). *Linguistic and cultural development policy – a societal project for the French education system*. Fredericton: Department of Education and Early Childhood Development. www.gnb.ca/education

Reeves, D. B. (2008). *Reframing teacher leadership to improve your school*. Alexandria: ASCD

Robinson, V. (2011). *Student-Centered Leadership*. San Francisco: Jossey-Bass

Sahlberg, P. (2011). *Finnish Lessons*. New York: Teachers College Press

Science East. www.scienceeast.nb.ca

Scraba, E. (2002). *Schools teach – parents & communities support – children learn – everyone benefits – Scraba report to New Brunswick Department of Education*.

Schmoker, M. (2011). *Focus*. Alexandria: ASCD

Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press

Skinner, E.A., Kindermann, T. A., Connell, J. P., & Wellborn, J. G. (2009). *Engagement and disaffection as organizational constructs in the dynamics of motivational development*. In K. R. Wentzel and Wigfield, Handbook of motivation at school. New York: Routledge

Submissions made to the *Add Your Voice* consultation held on recommendations for a new 10-year education plan. (2015-2016)

Taylor, C., & Peter, T., with McMinn, T.L., Elliott, T., Beldom, S., Ferry, A., Gross, Z., Paquin, S., & Schachter, K. (2011). *Every class in every school: The first national climate survey on homophobia, biphobia, and transphobia in Canadian schools. Final report*. Toronto, ON: Egale Canada Human Rights Trust.

Taylor, C., Peter, T., Campbell, C., Meyer, E., Ristock, J., & Short, D. (2015). *The Every Teacher Project on LGBTQ-inclusive education in Canada's K-12 schools: Final report*. Winnipeg, MB: Manitoba Teachers' Society.

Telegraph-Journal. (2015). Op Ed: "Living Saint John strategy seeks to end child poverty." Saint John: Brunswick News Inc. November 10, Page A7.

Learning: Everybody's Project. Fredericton: NB2026

Trenholme Counsel, M., & Roy, L. (2016). *The Power of Literacy – Moving towards New Brunswick's Comprehensive Literacy Strategy*. Fredericton. Province of New Brunswick

Truth and Reconciliation Commission of Canada. <http://nctr.ca/>

United Nations *Convention on the Rights of Persons with Disabilities*. <http://www.un.org>

United Nations Educational, Scientific and Cultural Organization (UNESCO). <http://en.unesco.org/>

Veale, J., Saewyc, E., Frohard-Dourlent, H., Dobson, S., Clark, B., & the Canadian Trans Youth Health Survey Research Group (2015). *Being Safe, Being Me: Results of the Canadian Trans Youth Health Survey*. Vancouver, BC: Stigma and Resilience Among Vulnerable Youth Centre, School of Nursing, University of British Columbia

Vygotsky, Lev. *The Social Development Theory* (1962) as quoted on www.learning-theory.com

www.edutopia.org (January 2013) Rebecca Alber

Wenglinsky, H. (2000). *How Teaching Matters*. Princeton: Milken Family Foundation

White, S. (2011). *Beyond the Numbers*. Englewood: Lead and Learn Press

Willms, J. D. (2002). *Vulnerable children and youth*. Education Canada, 42(3), 40-44

Zero Project. www.zeroproject.org